BioEnterics LAP-BAND®
Adjustable Gastric Banding System

ARTICLES AND ABSTRACTS

For the reader’s convenience:

- PDFs of full articles are provided for selected references – click on designated links which are in blue text.
- PubMed abstracts are included for all LAP-BAND System Articles. Congress Presentation Abstracts include the citation only.

1. Abkin A., Bertha N., Meola M.,
   Ambulatory Surgery for the Placement Of The Adjustable Gastric Band for Morbid Obesity,
   (LAP-BAND® System Congress Presentation Abstract)

2. Ablassmaier B., Klaua S., Jacobi C., Müller J.,
   Laparoscopic Gastric Banding after Heart Transplantation,
   (LAP-BAND® System Article)

BACKGROUND: Obesity often complicates the postoperative course of heart transplant recipients. Laparoscopic adjustable gastric banding (LAGB) represents a minimal invasive therapeutic possibility for weight reduction in non-transplanted patients. CASE REPORT: We report a 55-year-old diabetic, morbidly obese male (weight 138 kg, height 173 m, BMI 46 kg/m2) in whom 6 years after orthotopic heart transplantation, LAGB and laparoscopic cholecystectomy were successfully performed. At follow-up of 28 months, the patient has lost 32 kg. His present weight is 106 kg (BMI 35.4). Diabetes improved, and oral diabetic medication was withdrawn. Cyclosporine dosage has not had to be changed after LAGB. CONCLUSION: In morbidly obese transplanted patients, LAGB should be considered as an effective alternative to dietetic measures to enable weight reduction and to improve co-morbidities. In contrast to bariatric malabsorption techniques, like jejunileoal bypass and gastric bypass, cyclosporine pharmacokinetics do not appear to be influenced by gastric banding.

3. Abu-Abeid S., Szold A.,
   Adjustable Silicone Gastric Banding for Re-Operation of Failed Bariatric Procedures,
   (LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Laparoscopic adjustable silicone gastric banding (LASGB) has been performed as the initial procedure for weight reduction in the authors’ institution for the past 22 months. The efficacy and safety of the procedure were studied. METHODS: Patients were followed up prospectively during the perioperative and long-term course and for complications. RESULTS: 391 patients, aged 16-72 years, with a mean body mass index (BMI) of 43.1 (range 33-66) were operated on. The laparoscopic procedure was completed in all but four. The mean operative time was 78 min (range 36-165), and the mean postoperative hospital stay was 1.2 days (range 1-8). There were four (1%) intraoperative complications: pneumothorax in one patient, bleeding in two patients, and injury to the stomach in one. Early postoperative complications were subphrenic abscess in two patients and band malposition in five. Of the patients operated on, 356 (91%) were available for follow-up. Over an average follow-up period of 13 months (range 1-22), band slippage occurred in 16 patients (4.1%), resistant port infection in 1, and longstanding pain in the port area in 9. There were 2 cases of port migration. A total of 26 (6.4%) reoperations were performed: early band repositioning (5), bleeding port site (1), late band repositioning (13), band removal (5), and local relocation of the port (2). All abdominal operations were performed laparoscopically. During the 18-month follow-up, the average BMI dropped from 43.1 to 29.8. CONCLUSION: LASGB is a safe procedure, with low early complication rates. Most reoperations may be performed laparoscopically, with subsequent low morbidity and short hospitalizations. On intermediate-term follow-up it seems to be an effective bariatric procedure.
BACKGROUND: Laparoscopic adjustable silicone gastric banding (LASGB) is the bariatric operation of choice in our institution for most morbidly obese patients. The advantage of LASGB is a minimally invasive procedure, with low systemic and operative complication rates. However this procedure is not free from significant postoperative problems that may arise at a later stage.

RESULTS: 2 patients presented with abscess formation at the port site, and 1 patient suffered from a gastric fistula at the port site 6 months following surgery. In all patients the immediate postoperative course was not smooth; 2 patients developed a subphrenic collection drained percutaneously, and one patient had fever, treated empirically with intravenous antibiotics. In all 3 patients, no leak was demonstrated by CT and barium meal. The diagnosis of band erosion was confirmed by gastroscopy, which demonstrated part of the band eroding through the gastric wall. All patients were operated laparoscopically. The band was removed and the gastric wall was sutured. The postoperative course was uneventful and patients left the hospital within 3 days.

CONCLUSION: Lapland erosion following LASGB is very rare and may occur months following the operation. The postoperative course suggests that the erosion is the consequence of a minute stomach wall injury during the primary operation. Diagnosis is essential and the treatment of choice is laparoscopic band removal with suturing of the stomach wall. It is possible that a minute injury to the gastric wall during the initial procedure is the underlying cause of this complication.
12. Abu-Abeid S., Gorevich A., Szold A.,
Safety and Feasibility of LAGB Following Previous Failed SRVG,
(LAP-BAND® System Congress Presentation Abstract)

13. Abu-Abeid S., Keidar A., Szold, A.,
Resolution of Chronic Medical Conditions After Laparoscopic Adjustable Silicone Gastric Banding for the Treatment of Morbid Obesity in the Elderly,
(LAP-BAND® System Article)

BACKGROUND: The routine cutoff age of surgery for morbid obesity is 55 years. A minimally invasive surgical approach, however, may enable its safe use in older individuals. METHODS: Laparoscopic adjustable silicone gastric banding (LASGB) was performed in 18 patients 60 years or older. The perioperative course, early and late complications, and long-term follow-up all were recorded. RESULTS: Of 398 patients who underwent LASBG until November 1998 (mean age, 38.1 years), 18 were 60 years or older (mean, 63.6 years). The mean body mass index (BMI) was 44.4 (range, 35-64.7). There were no intraoperative complications. However, four patients had late complications requiring reoperation. The mean operative time was 65 min; the mean hospital stay was 1.3 days; and the mean follow-up period was 21.9 months. The BMI dropped from 44.2 to 30.5, and all comorbid conditions improved markedly: Diabetes mellitus resolved in 71% of the patients, hypertension in 33%, and sleep apnea in 100%. CONCLUSION: According to the findings from this study, LASGB is feasible, safe, and effective in the elderly, and most benefit from resolution or marked improvement of comorbid conditions.

14. Abu-Abeid S., Pataschornik H., Szold A.,
The Clinical Spectrum of Band Erosion Following Laparoscopic Adjustable Silicone Gastric Banding (LAGB),
(LAP-BAND® System Congress Presentation Abstract)

15. Abu-Abeid S., Gavert N., Szold A.,
Hitting Two Birds with One Stone: Laparoscopic Revisional Surgery for Relief of Life-Threatening Stenosis Following Vertical Banded Gastroplasty Together with Placement of an Adjustable Gastric Band,
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Morbid obesity is effectively treated by restrictive surgery. A severe complication associated with gastric banding is gastric erosion. We review here our experience over a 5-year period. METHODS: A total of 1496 patients underwent gastric banding. Eighty-five percent of patients were available for follow-up. When band erosion was diagnosed, laparoscopic removal was performed. RESULTS: Band erosion was identified in 17 patients (1.13%). The time from primary operation to diagnosis of band erosion ranged from 3 weeks to 45 months (mean, 19 months). Clinical manifestations included weight gain in 2 (11.6%), band system leak in 1 (5.8%), chronic port-cutaneous fistula in 2 (11.6%), neglected peritonitis in 1 (5.8%), left subphrenic abscess in 2 (11.6%), but most commonly, protracted port-site infection that occurred in 7 patients (40.6%). CONCLUSIONS: Patients were effectively treated by band removal and suturing of the stomach wall. We suggest that different pathologies contribute to the same complication depending upon the time of presentation. We recommend a high index of suspicion in order to diagnose this life-threatening complication.

17. Abu-Abeid S., Gavert N., Sagie B., Szold A.,
Bariatric Surgery in the Extreme Ages: Adolescents and Elderly,
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND/PURPOSE: Surgical treatment for morbid obesity is relatively contraindicated in patients less than 18 years of age. However, on some occasions, there is extreme obesity in this age group that does not respond to nonsurgical treatment. The aim of this study was to evaluate the surgical management of severe morbid obesity in adolescents. METHODS: During a 4-year period, the authors assessed 11 adolescent patients with severe morbid obesity. All patients underwent extensive preoperative evaluation including thorough psychological evaluation together with their families. Laparoscopic adjustable gastric banding (LAGB) was performed in all patients. Patients underwent follow-up for a mean of 23 months. RESULTS: The mean age of the 11 children in this study was 15.7 years (range, 11 to 17 years). Associated conditions included heart failure and pulmonary hypertension in one patient, amenorrhea in 2 patients, and gallstones in 1 patient. Mean preoperative body mass index (BMI) was 46.4 kg/m2 (range, 38 to 56.6). There were no operative complications. Over a mean follow-up period of 23 months (range, 6 to 36 months), the mean BMI dropped from 46.6 to 32.1 kg/m2 with marked improvement in medical conditions and general psychologic well being. No late complications developed in any patient. CONCLUSIONS: Children are routinely excluded from bariatric surgery programs because of the difficulties involved in psychologically and cognitively preparing this population for surgery. However, extreme morbid obesity rarely responds to nonsurgical therapy for any extended period. This select population will benefit from bariatric surgery if an effort is made to properly prepare patients, together with their families, for the postoperative change in lifestyle and body image.
BACKGROUND: Intra-gastric band migration (band erosion) following laparoscopic adjustable gastric banding (LAGB) is a known complication requiring revisional surgery. Management has most often involved band removal and suturing of the stomach wall, followed by delayed replacement at a third operation. We report our experience with simultaneous band removal and replacement.

METHODS: Between May 2001 and December 2003, we performed 754 laparoscopic operations using the Lap-Band (R). Patients developing band erosion were treated by laparoscopic band removal and immediate replacement of a new band following gastric wall repair. RESULTS: 16 patients (2.1%) developed band erosion after a mean of 23 months following surgery (range 11-40 months). Patients presented with epigastric pain (6), port-site bulge (3) or were asymptomatic (7), band erosion being suspected during fluoroscopy for band adjustment and confirmed by gastroscopy. Postoperatively, 11 patients developed fever that responded to antibiotics. No patient suffered from intra-abdominal infection, wound infection, pneumonia or pulmonary embolism. Mean hospital stay was 4 days (range 1-8 days). CONCLUSION: Band erosion following LAGB can be treated safely with simultaneous laparoscopic band removal, gastric wall suturing and immediate replacement of the band, thereby preventing weight gain, the appearance of co-morbidities and the need for additional surgery.
26. Accorsi D., Tomasetti C., Souza R.,
   Weight Loss Evolution after Surgical Treatment for Morbid Obesity,
   Obesity Surgery, 12, 2002, 515.
   (LAP-BAND® System Congress Presentation Abstract)

27. Ahmad SS, Ambacher T,
   The Pattern of Weight Loss in Patients with Laparoscopic Gastric Banding According to
   the Intensity of Postoperative Follow-Up
   (LAP-BAND® System Abstract)

28. Ahmad SS, Ambacher T,
   Gastric Banding to Treat Morbidly Obese Patients with a Previous Fundoplication
   Operation, Obesity Surgery, 16, 2006, 1010.
   (LAP-BAND® System Abstract)

29. Ahmad SS, Ambacher T,
   Anterior Hiatal Hernia Repair with Gastric Banding to Treat Morbidly Obese Patients
   with Gastroesophageal Reflux Disease,
   Obesity Surgery, 16, 2006, 1027.
   (LAP-BAND® System Abstract)
BACKGROUND: The objective of this study was to determine the weight loss, changes in co-morbidities, medication usage and general health status at 1 year after laparoscopic adjustable gastric banding (LAGB). METHODS: Prospective data were obtained from all subjects undergoing LAGB. These measurements included a medical history and review of systems, medications, height and weight and the SF-36 general health survey. Patients were seen for band adjustments as needed throughout the year. At the 1-year follow-up visit, patients were weighed and interviewed about the status of their health conditions and their current medications, and the SF-36 was repeated.

RESULTS: Between November 2002 and November 2003, 195 patients had LAGB. The majority of subjects were female (82.8%), married (65.1%), and white (94.9%). Complications occurred in 18 subjects (9.2%). These included 3 slipped bands (1.5%), 4 port problems (2.1%), 8 patients with temporary stoma occlusion (4.1%), 1 explantation (0.5%), and 1 mortality (0.5%). Mean BMI decreased from 45.8 kg/m² (+/− 7.7) to 32.3 kg/m² (+/− 7.0). Mean percent excess body weight lost was 45.7% (+/− 17.1) during the first year. Major improvements occurred in arthritis, asthma, depression, diabetes, gastro-esophageal reflux disease, hyperlipidemia, hypertension, joint and back pain, sleep apnea and stress incontinence. Medication usage declined remarkably. Quality of life (QoL) by the SF-36 showed highly significant improvements. CONCLUSIONS: At 1 year after LAGB, patients had experienced significant weight loss, resolution of comorbidities, decreases in medication usage, and improvements in QoL.
BACKGROUND: Laparoscopic gastric banding is a minimally invasive bariatric operation that is increasing in popularity at many centers worldwide. Although this procedure is not yet approved in the United States, clinical trials are ongoing. METHODS: We report our results of a 3-year follow-up on 60 patients who underwent the laparoscopic gastric band procedure for the treatment of morbid obesity. The procedure was performed at the Wesley Obesity Clinic in Brisbane, Australia. RESULTS: At follow-up, 51 of the 60 patients (85%) still had the laparoscopic gastric band in place. All of the patients had a lower body weight after undergoing the procedure. The average weight loss was 39 kg (range 2 to 98 kg), representing a loss of 65% of average excess body weight. Twenty-five of 51 patients (49%) regained some weight after their initial loss, but the average amount was only 5 kg. The remaining 26 patients have remained at their lowest body weight recorded after the procedure or are continuing to lose weight. There was no operative mortality. Complications predominately were caused by band slippage (21%), which has been nearly eliminated in recent practice (1 slip in the last 225 cases). Subsequent modifications in the technique to prevent band slippage included placing the band near the level of the esophagus, with minimal disruption of the posterior gastric attachments and diligent suturing of the band in place. CONCLUSIONS: We conclude that the laparoscopic gastric band is effective in short- and long-term weight loss. The high rate of reoperation for repositioning has been avoided in current practice.
39. Allen J., Ren C.,
American Trends in Choice of Bariatric Operation in 2002,
Obesity Surgery, 12, 2002, 459.
(LAP-BAND® System Congress Presentation Abstract)

40. Allen J., Acosta J., Baldwin L., Cacchione R.,
Post-Operative Obstruction after Laparoscopic Gastric Banding: Management and Outcomes,
ASBS Presentation, 2004, 34.
(LAP-BAND® System Congress Presentation Abstract)

41. Alvarez A., Capria J., Alvarez-Cordero R., Albarracin S., Cascardo A.,
Total Intravenous Anesthesia with Midazolam, Remifentenyl, and Cysatracurium in Morbid Obese Patients Undergoing Laparoscopic Gastric Surgery with LAP-BAND®,
Obesity Surgery, 9, 1999, 344.
(LAP-BAND® System Congress Presentation Abstract)

42. Alvarez G., Faria N., Pansard R., Carnieletto M., Kwiatowski F., Schmitz M., Machado C.,
Technique Difficulties in Laparoscopic Withdrawl of the Adjustable Gastric Band (AGB) after Erosion of the Gastric Wall,
(LAP-BAND® System Congress Presentation Abstract)

43. Alvarez G., Faria N., Pansard R., Carnieletto M., Garcia M., Kwiatkowski F., Schmitz M., Machado C.,
Laparoscopic Roux-En-Y Gastric Bypass vs Laparoscopic Gastric Band,
(LAP-BAND® System Congress Presentation Abstract)

44. Alvarez-Cordero R., Castillo G., Ramirez-Wiella G.,
Initial Experience in 100 Cases of Adjustable Gastric Banding, Followed for 6-24 Months,
Obesity Surgery, 8, 1998, 163.
(LAP-BAND® System Congress Presentation Abstract)

45. Alvarez-Cordero R., Ramirez-Wiella G., Aragon-Viruet E., Toledo D.,
Laparoscopic Gastric Banding: Initial Two Year Experience,
(LAP-BAND® System Congress Presentation Abstract)
46. Alvarez-Cordero R., Castillo-Gonzalez A., Ramirez-Wiella G., Aragon-Viruette E., Lessons Learned After 2 Years LAP-BAND® Experience, 
(LAP-BAND® System Congress Presentation Abstract)

47. Alvarez-Cordero R., Aragon-Viruette E., Comparative Analysis of Three Bariatric Techniques with the B.A.R.O.S. System, 
(LAP-BAND® System Congress Presentation Abstract)

48. Alvarez-Cordero R., Fertility and Pregnancy after Obesity Surgery, 
*Obesity Surgery*, 9, 1999, 343.
(LAP-BAND® System Congress Presentation Abstract)

49. Alvarez-Cordero R., Aragon-Viruette E., Montoya-Ramirez J., Villanueva-Saldivar K., The Gastric Banding Mexican Technique Four Years Later, 
(LAP-BAND® System Congress Presentation Abstract)

50. Alvarez-Cordero R., Aragon-Viruette E., Montoya-Ramirez J., Sandoval A., Toledo D., Four Year Evaluation of Three Surgical Techniques, 
(LAP-BAND® System Congress Presentation Abstract)

51. Alvarez-Cordero R., Aragon-Viruette E., Montoya-Ramirez J., Five Year Experience on 500 Gastric Banding Patients, 
(LAP-BAND® System Congress Presentation Abstract)

52. Alvarez-Cordero R., Aragon-Viruette E., Montoya R., Roky V., Could Gastric Band be Deflated as Patient Reaches Desired Weight? 
*Obesity Surgery*, 12, 2003, 543.
(LAP-BAND® System Congress Presentation Abstract)
53. Ammori B.,
A Simple Technique to Fix the Reservoir in Laparoscopic Gastric Banding,
(LAP-BAND® System Article)

Laparoscopic gastric banding is an established approach for the surgical correction of morbid obesity. Fixation of the reservoir to the anterior abdominal wall is a cumbersome procedure that invariably involves an extension of the skin incision and rather tedious suturing in the depth of the wound. Inadequate completion of this step may lead to tilting of the reservoir, which may hinder future band inflations. This paper describes a simple technique to overcome this difficulty.

54. Anagnostides A., Klavdianos E., Taoufic H., Katsaros G.,
Adjustable Gastric Banding Corrects Bulimia and Reduces Overweight in Morbid Obesiy,
*Obesity Surgery, 9, 1999, 343.*
(LAP-BAND® System Congress Presentation Abstract)

55. Anagnostides A., Taoufic H., Papadothomakos P., Klavdianos E., Katsaros G.,
The Elimination of Side-Effects of Adjustable Gastric Banding (AGB) in Morbid Obesity (MO),
*Obesity Surgery, 10, 2000, 325.*
(LAP-BAND® System Congress Presentation Abstract)

56. Anderson P., Watson D.,
A New Surgical Technique for Adjustable Silicone Gastric Band (LAP-BAND®) in the Presence of a Large Hiatus Hernia,
*Obesity Surgery, 8, 1998, 400.*
(LAP-BAND® System Congress Presentation Abstract)
57. Anderson P., Watson D.,
A New Surgical Technique for the Silicone Gastric Band in the Presence of a Large Hiatus Hernia,
(LAP-BAND® System Article)

BACKGROUND: The purpose of this study was to establish the efficacy of a new surgical technique for the placement of the silicone gastric band (LAP-BAND) in the presence of a large (>5 cm) hiatus hernia. METHOD: Hiatus hernias >5 cm were identified by endoscopy and barium meal in 6 patients. Each patient underwent hiatal hernia repair and attempted gastrodesis with laparoscopic placement of a gastric band. RESULTS: At 6 months, there were no complications. Mean weight loss was 16 kg. CONCLUSION: Repair of hiatus hernia with hiatal repair and gastrodesis of the posterior aspect of the stomach may allow some patients to undergo a procedure previously considered contraindicated.

58. Anderson P.,
Endoscopic and Histological Evaluation of the LAP-BAND® at 12 Months,
(LAP-BAND® System Congress Presentation Abstract)

59. Anderson P.,
A Preliminary Comparison of the Psychological Impact of Laparoscopic Gastric Banding and Gastric Bypass Surgery for Morbid Obesity,
*Obesity Surgery*, 9, 1999, 337.
(LAP-BAND® System Congress Presentation Abstract)

60. Anderson P.,
The LAP-BAND – Defining the Problem of Slippage,
(LAP-BAND® System Congress Presentation Abstract)

61. Anderson P.,
The Laparoscopic Gastric Band-Clinical and Histological Changes At The Esophagogastric Junction/the Level of the Band/and the Stomach [60 Patients at 2 Years Post Banding],
*Obesity Surgery*, 10, 2000, 327.
(LAP-BAND® System Congress Presentation Abstract)

62. Anderson P.,
Laparoscopic Gastric Banding: One Surgeon, 400 Cases, Results And Complications,
(LAP-BAND® System Congress Presentation Abstract)
63. Anderson P.,
   The Esophagogastric Junction, Clinical and Histological Changes at 2 and 5 Years
   Following the Placement of the LAP-BAND,
   *Obesity Surgery*, 13, 2003, 527.
   (LAP-BAND® System Congress Presentation Abstract)

64. Angrisani L., Lorenzo M., Esposito G., Romano G., Puzziello A., Belfiore A., Santoro T., Roina G., Petito A., Falconi C., Tesauro B.,
   Laparoscopic Adjustable Silicone Gastric Banding: Preliminary Results of the University of Naples Experience,
   (LAP-BAND® System Article)

**BACKGROUND:** Laparoscopic adjustable silicone gastric banding (LASGB) is a minimally invasive surgical procedure indicated for the treatment of patients with morbid obesity. METHODS: From January 1996, eight patients successfully underwent the video-laparoscopic procedure. RESULTS: Preoperative body mass index was 44.4 +/- 4.7 (range 37.9-53.3). Mean operative time was 255 +/- 73 minutes (range 150-360). Mean hospital stay was 3 +/- 1 days. Intraoperative complications were absent. CONCLUSION: Preliminary results have been satisfactory, and encourage us to continue with LASGB.

65. Angrisani L., Lorenzo M., Santoro T., Nicodemi O., Da Prato D., Ciannella M., Persico G., Tesauro B.,
   Follow-Up of LAP-BAND® Complications,
   (LAP-BAND® System Congress Presentation Abstract)

66. Angrisani L., Lorenzo M., Santoro T., Nicodemi O., Persico G., Tesauro B.,
   Videolaparoscopic Treatment of Gastric Banding Complications,
   (Miscellaneous Article)

**No abstract available**
67. Angrisani L., Lorenzo M., Santoro T., Nicodemi O., Da Prato D., Ciannella M., Persico G., Tesauro B.,
Follow-Up of LAP-BAND® Complications,
Obesity Surgery, 9, 1999, 276-278.
(LAP-BAND® System Article)

BACKGROUND: Proximal gastric pouch dilation (PGPD) and band dislocation (BD) are the most frequent complications of laparoscopic adjustable silicone gastric banding (LASGB). METHODS: Conservative treatment of PGPD and BD was attempted in all patients by deflation of the band. In the case of failure, laparoscopic exploration was performed. RESULTS: From January 1996 to July 1998, 8 of 40 patients who underwent LASGB experienced PGPD (n = 7) or BD (n = 1). Debanding was performed in 3 patients with PGPD, while in 4 the pouch dilation was successfully treated with deflation of the band. Two patients (PGPD and BD) were treated with band repositioning. Weight loss was not influenced in patients treated conservatively, compared with patients who did not experience complications. CONCLUSIONS: PGPD and BD are not always responsible for band failure in LASGB. Conservative treatment can be successful, and repositioning of the band is feasible in selected cases.

68. Angrisani L., Santoro T., Lorenzo M., Nicodemi O., Borrelli V., Santoro A., Tesauro B.,
Connecting Tube Lost in Peritoneum is an Indication for Laparoscopic Re-Exploration Following LAP-BAND®,
Obesity Surgery, 9, 1999, 342.
(LAP-BAND® System Congress Presentation Abstract)

69. Angrisani L., Iovino P., Lorenzo M., Santoro T., Sabbatini F., Claar E., Nicodemi O., Persico G., Tesauro B.,
Treatment of Morbid Obesity and Gastroesophageal Reflux with Hiatal Hernia by LAP-BAND®,
(LAP-BAND® System Article)

BACKGROUND: Esophageal reflux is common in obese patients. Hiatal hernia is considered a potential contraindication to placement of a LAP-BAND. METHODS: Esophageal investigation in patients who were candidates for a Lap-Band included clinical evaluation of symptoms (scoring system), endoscopic and radiologic evaluation, 24-h pH test, and stationary manometry. Patients with gastroesophageal reflux (GER) with or without hiatal hernia underwent the Lap-Band procedure. RESULTS: GER was diagnosed in 12/40 morbidly obese patients, 11 of whom received a standard Lap-Band (3 patients were radiologically diagnosed with transient hiatal hernia). One patient with a large hiatal hernia underwent closure of the diaphragmatic esophageal hiatus, and the Lap-Band was positioned similarly to an Angelchik prosthesis. All but 1 patient who was lost at follow-up were symptom-free (range 1-24 months). CONCLUSION: GER with or without hiatal hernia is not a contraindication for obese patients undergoing a LAP-BAND procedure. It accomplishes by a single operation satisfactory treatment of these two disturbing diseases.
   LAP-BAND®: A Collected Laparoscopic Italian Experience on 1061 Patients,
   *Obesity Surgery*, 10, 2000, 135.
   (LAP-BAND® System Congress Presentation Abstract)

71. Angrisani L., Iovino P., Santoro T., Borrelli V., Ciannella M., Lorenzo M., Tremolaterra F.,
   Nirchio E.,
   The Use of LAP-BAND® for Simultaneous Treatment of Obesity and Gastro-Esophageal
   Reflux Disease (GERD) With or Without Hiatal Hernia (HH),
   *Obesity Surgery*, 10, 2000,139.
   (LAP-BAND® System Congress Presentation Abstract)

72. Angrisani L., Alkilani M., Basso N., Belvederesi N., Campanile F., Capizzi F.D., D’Atri C., Di
   Cosmo L., Doldi S.B., Favretti F., Forestieri P., Furbetta F., Giacomelli M., Giardiello C., Iuppa
   Lorenzo M., Docimo.C.,
   LAP-BAND Adjustable Gastric Banding System (LAGB): a 4 Year Multi-Center Italian
   Experience,
   *Obesity Surgery*, 10, 2000, 323.
   (LAP-BAND® System Congress Presentation Abstract)

73. Angrisani L., Furbetta F., Lucchese M., Basso N., Doldi S., Favretti F., Di Cosmo L., Veneziani
   A., Turicchia G., Alkilani M., Lesti G., Belvederesi N., Puglisi F., Toppino M., Campanile F.,
   Capizzi F., D’Atri C., Scipioni L., Giardiello C., Forestieri P., Di Lorenzo N., Giacomelli A.,
   Iuppa A., Lorenzo M.,
   Results of the Italian Multi-Center Study on 173 Super Obese Patients (BMI>50) Treated
   by Adjustable LAP-BAND® System Procedure,
   (LAP-BAND® System Congress Presentation Abstract)

74. Angrisani L., Borrelli V., Lorenzo M., Santoro T., Cimmino G., Ciannella M., Iovino P.,
   Persico G., Tesauro B.,
   Conversion of LAP-BAND® to Gastric Bypass for Dilated Gastric Pouch,
   (LAP-BAND® System Article)

An 18-year-old female who had undergone a laparoscopic adjustable gastric banding developed
several episodes of gastric pouch dilatation (GPD), treated conservatively. The last GPD (31 months
after Lap-Band placement) involved the lesser curvature of the stomach and was refractory to
medical treatment. Conversion to an open gastric bypass was performed. Gastric bypass is an option
in the case of Lap-Band failure.
BACKGROUND: An increasing number of surgeons with different levels of experience with laparoscopic surgery and open obesity surgery have started to perform laparoscopic implantation of the Lap-Band. METHODS: An electronic patient data sheet was created and was mailed and e-mailed to all surgeons performing laparoscopic adjustable silicone gastric banding (LASGB) in Italy. Patients were recruited since January 1996. Data on 1,265 Lap-Band System operated patients (258 M/1,007 F; mean BMI 44.1, range 27.0-78.1; mean age 38, range 17-74 years) were collected from 23 surgeons performing this operation. RESULTS: Intra-operative mortality was absent. Post-operative mortality was 0.55% (7 patients) for causes not specifically related to LASGB implantation. The laparotomic conversion rate was 1.7% (22 patients). LASGB related complications occurred in 143 patients (11.3%). Pouch dilatation was diagnosed in 65 (5.2%), and 28 (2.2%) of these underwent re-operation. Band erosion was observed in 24 patients (1.9%). Port or connecting tube-port complications occurred in 54 patients (4.2%), 12 of whom required revision under general anesthesia. Follow-up was obtained at 6, 12, 18, 24, 36 and 48 months, and mean BMI was respectively 38.4, 35.1, 33.1, 30.2, 32.1 and 31.5. The percentage of patients observed at each follow-up was > 60%. There was no intra-operative mortality and no complication-related mortality, with acceptable weight loss. CONCLUSION: The LASGB operation is safe and effective, and deserves wider use for treatment of morbid obesity.

   Gastric Pouch Dilation Following LAGB System Procedure: The Italian Experience,
   (LAP-BAND® System Congress Presentation Abstract)

   LAP-BAND System®: Results of Multi-Center Study on Patients with BMI < 36,
   Obesity Surgery, 12, 2002, 463.
   (LAP-BAND® System Congress Presentation Abstract)
Experience of the Italian Group in the LAP-BAND® System with 2,017 Operated Patients,
(LAP-BAND® System Congress Presentation Abstract)

Results of the Italian Multicenter Study on 239 Super-Obese Patients Treated by Adjustable Gastric Banding,
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) is the most common bariatric operation. This study is a retrospective analysis of the multicenter Italian experience in patients with BMI > 50 over the last 4 years. METHODS: An electronic data sheet made for LAGB-operated patients since January 1996, was mailed and e-mailed to all surgeons involved in this kind of procedure in Italy. Items regarding patients with BMI > 50 were selected. Analysis used Fisher’s exact test and logarithmic regression analysis (P < 0.05 significant). Data were expressed as mean +/- SD. RESULTS: 239 patients (13.3%), out of 1,797 Lap-Band operated patients entered the study (179F / 60M), with mean age 37.6 +/- 11.3 years (19-69) and mean BMI 54.6 +/- 4.8 (50.1-83.6). Laparotomic conversion rate was 5.4% (44/239). Postoperative complications occurred in 24 / 239 patients (9.0%). Follow-up was obtained in 218 / 218, 198 / 198, 121 /147, 75 / 93, 30 / 38 LAGB patients at 6, 12, 24, 36, and 48 months respectively. At these time periods, mean BMI was 46.7, 43.9, 42.2, 41.9, and 39.3 kg/m2. At the same intervals, mean %EWL was 24.1, 34.1, 38.8, 38.9, and 52.9%. The number of patients with < 25% EWL at 12, 24, 36, and 48 months follow-up were 34, 10, 4, and 0. Serious co-morbidities (189 in 124 of 239, 57%) had completely resolved 1 year postoperatively in 74 / 124 of the patients (59.6%). CONCLUSION: Although super-obese patients following the LAGB remain obese with BMI > 35, in the short-term most lose their co-morbidities, with a very low morbidity and mortality rate.
BACKGROUND: The Lap Band system procedure is currently the most common bariatric surgical procedure worldwide. This is an interim report of the experience of the 27 Italian centers participating in the national collaborative study group for Lap Band (GILB). METHODS: An electronic database was specifically created. It was mailed and e-mailed to all of the surgeons now performing the laparoscopic gastric banding operation in Italy. RESULTS: Beginning in January 1996, 1893 patients were recruited for the study. There were 1534 women and 359 men with a mean body mass index (BMI) of (range 30.4-83.6) and a mean age of 37.8 +/- 10.9 years (range; 17-74). The mortality rate has been 0.53% (n = 10), mainly due to cardiovascular complications (myocardial infarction, pulmonary embolism). The laparotomic conversion rate has been 3.1% (59/1893) and was higher in superobese patients (BMI>50) than in morbidly obese patients (BMI <50) (p <0.05). Postoperative complications occurred in 193 patients (10.2%), including tube port failure (n = 79; 40.9%), gastric pouch dilation (GPD) (n = 93; 48.9%), and gastric erosion (n = 21, 10.8%). Most GPD (65.5%) occurred during the first 50 patients treated at each center. The incidence of GPD decreased as the surgeons acquired more experience. Surgery for complications was often performed by laparoscopic access, rarely via laparotomy. No death was recorded as a consequence of surgery to treat complications. Weight loss has been evaluated at the following intervals: 6, 12, 24, 36, 48, 60, and 72 months, with BMI 37.9, 33.7, 34.8, 34.1, 32.7, 34.8, and 32. CONCLUSIONS: The Lap Band system procedure has a very low mortality rate and a low morbidity rate and it yields satisfactory weight loss. Surgery for complications can be performed safely via laparoscopic access.
BACKGROUND: The Lap-Band System is the most common bariatric operation worldwide. Current selection criteria do not include patients with BMI < or = 35. We report the Italian multicentre experience with BMI < or = 35 kg/m(2) over the last 5 years. PATIENTS AND METHODS: Data were obtained from 27 centres involved in the Italian Collaborative Study Group for Lap-Band System. Detailed information was collected on a specially created electronic data sheet (MS Access 2000) on patients operated in Italy since January 1996. Items regarding patients with BMI < or = 35 were selected. Data were expressed as mean +/- SD except as otherwise indicated. RESULTS: 225 (6.8%) out of 3,319 Lap-Band patients were recruited from the data-base. 15 patients, previously submitted to another bariatric procedure (BIB =14; VBG= 1) were excluded. 210 patients were eligible for study (34M/176F, mean age 38.19+/-11.8, range 17-66 years, mean BMI 33.9+/-1.1, range 25.1-35 kg/m(2), mean excess weight 29.5+/-7.1, range 8-41). 199 comorbidities were diagnosed preoperatively in 55/210 patients (26.2%). 1 patient (0.4%) (35 F) died 20 months postoperatively from sepsis following perforation of dilated gastric pouch. There were no conversions to laparotomy. Postoperative complications presented in 17/210 patients (8.1%). Follow-up was obtained at 6, 12, 24, 36, 48 and 60 months. At these time periods, mean BMI was 31.1+/-2.15, 29.7+/-2.19, 28.7+/-3.8, 26.7+/-4.3, 27.9+/-3.2, and 28.2+/-0.9 kg/m(2) respectively. Co-morbidities completely resolved 1 year postoperatively in 49/521 patients (26.2%). 1 patient (0.4%) (35 F) died 20 months postoperatively from sepsis following perforation of dilated gastric pouch. There were no conversions to laparotomy. Postoperative complications presented in 17/210 patients (8.1%). Follow-up was obtained at 6, 12, 24, 36, 48 and 60 months. At these time periods, mean BMI was 31.1+/-2.15, 29.7+/-2.19, 28.7+/-3.8, 26.7+/-4.3, 27.9+/-3.2, and 28.2+/-0.9 kg/m(2) respectively. Co-morbidities completely resolved 1 year postoperatively in 49/55 patients (89.1%). At 60 months follow-up, only 1 patient (0.4%) has a BMI >30. CONCLUSIONS: Although surgical indications for BMI < or = 35 remain questionable, the Lap-Band in this study demonstrated that all but 1 patient achieved normal weight, and most lost their co-morbidities with a very low mortality rate.

83. Angrisani L., Favretti F., et al.,
   LAP-BAND Revision: 233/3813 Primary Procedures by the Italian Group for LAP-BAND (GILB),
   (LAP-BAND® System Congress Presentation Abstract)

84. Angrisani L., Favretti F., et al.,
   Laparoscopic Gastric Banding: Complications Trend of the Italian Experience During the Last 6 Years,
   Obesity Surgery, 14, 2004, 466, 467.
   (LAP-BAND® System Congress Presentation Abstract)
85. Angrisani L., Favretti F., et al.,
   Italian Group for LAP-BAND: Weight Loss Results at 5 and 7 Years Follow-Up,
   *Obesity Surgery, 14, 2004, 901.*
   (LAP-BAND® System Congress Presentation Abstract)

86. Angrisani L., Favretti F., Furbetta F., Paganelli M., Basso N., Doldi S., Iuppa A., Lucchese M.,
    Lattuada E., Lesti G., Capizzi F., Giardiello C., Di Lorenzo N., Paganini A., Di Cosmo L.,
    Veneziani A., Lacitignola S., Alkilani M., Puglisi F., Gardinazzi A., Cascardo A., Toppino M.,
    Forestieri P., Campanile F., Marzano B., Bernante P., Perotta G., Lorenzo M.,
    Estimation de l’influence du BMI preoperatoire sur la perte de poids apres LAP-BAND: Experience italienne sur 1060 patients suivis pendant 5 ans,
    (LAP-BAND® System Article)

No abstract available
BACKGROUND: Laparoscopic placement of the LAP-BAND System is a safe operation, but its indication in terms of stage of obesity is controversial. The aim of this study was to evaluate the 5 years stage of obesity results for weight loss in patients with varying preoperative ranges of body mass index (BMI). METHODS: Data were obtained from the Italian Collaborative Study Group for LAP-BAND System (GILB) registry. Detailed information was collected on a specifically created database (MS Access 2000) for patients operated on in Italy from January 1996 to 2003. Patients operated on between January 1996 and December 1997 were allocated to four groups according to preoperative BMI range: 30-39.9 kg/m^2 (group A), 40-49.9 kg/m^2 (group B), 50-59.9 kg/m^2 (group C), and =60 kg/m^2 (group D) percent estimated weight loss respectively. Postoperative complications, mortality, BMI, BMI loss, and (%EWL) were considered in each group. Data are expressed as mean +/- SD, except as otherwise indicated. Statistical analysis was done by means of Fisher's exact test, and p < 0.05 was considered significant. RESULTS: After 5 years from LAP-BAND System surgery, 573 of 3,562 patients were eligible for the study. One hundred fifty-five of 573 (27.0%) were lost to follow-up, 24 of 418 (5.7%) underwent band removal due to complications (gastric pouch dilation, band erosion), eight of 418 (1.9%) were converted to other bariatric procedures, five of 418 (1.2%) died of causes not related to the operation or the band, and 381 of 573 (66.5%) were available for follow-up. Based on 96, 214, 64, and seven patients their preoperative BMI, were allocated to groups A, B, C, and D, respectively. At time of follow-up mean BMI was 27.5 +/- 5.2 in group A, 31.6 +/- 4.7 in group B, 37.6 +/- 17.3 in group C, and 41.4 +/- 6.9 kg/m^2 in group D. Mean BMI loss was 9.8 +/- 5.4, 12.9 +/- 5.2, 15.8 +/- 8.1, and 23.2 +/- 4.9 kg/m^2, respectively, in groups A, B, C, and D. Mean %EWL at the same time was 54.6 +/- 32.3 in group A, 54.1 +/- 17.2 in group B, 51.6 +/- 35 in group C, and 59.1 +/- 17.1 in group D. CONCLUSION: Initial BMI in this series did not correlate with %EWL 5 years after the operation. Initial BMI was an accurate indicator of the results obtained 5 years after LAP-BAND in group C (50-59.9 kg/m^2) and D (=60 kg/m^2) patients, who remained morbidly obese despite their %EWL.

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89. Angrisani, et al,  
Five-year follow-up of the LAP-BAND System: are those who fail really failures?  
*Obesity Surgery, 15, 2005, 934.*  
(LAP-BAND® System Abstract)

90. Angrisani, et al,  
LAP- BAND Rapid Port™ System: Preliminary Results in 21 Patients,  
*Obesity Surgery, 15, 2005, 936.*  
(LAP-BAND® System Abstract)

91. Angrisani et al,  
Obese teenagers treated by LAP-BAND System: The Italian Experience,  
*SURGERY, November 2005, 877-881.*  
(LAP-BAND® System Article)

BACKGROUND: Little is known about obesity surgery in young and adolescent patients. The aim of this study is to evaluate results of laparoscopic adjustable gastric banding in obese teenagers. METHODS: Patients <=19 years old selected from the database of the Italian Collaborative Study Group for Lap-Band were analyzed according to mortality, comorbidities, laparotomic conversion, intra- and postoperative complications, body mass index (BMI), and % excess weight loss (EWL) at different times of follow-up. Data were expressed as mean +/- SD. RESULTS: Fifty-eight (1.5%) of 3813 patients who underwent operation with the Lap-Band System were <=19 years old: 47F/11M; mean age, 17.96 +/- 0.99 years (range, 15-19); mean BMI, 46.1 +/- 6.31 Kg/m(2) (range, 34.9 - 69.25); mean % excess weight, 86.4 +/- 27.1 (range, 34 - 226.53). Sixteen (27.5%) of the 58 patients were superobese (BMI >=50). In 27/58 (46.5%) patients, 1 or more comorbidities were diagnosed. Mortality was absent. Laparotomic conversion was necessary in 1 patient with gastric perforation on the anterior wall. Overall postoperative complications occurred in 6/58 (10.3%). The band was removed in 6/58 (10.3%) patients for gastric erosion (3 patients), psychologic, intolerance (2 patients), and in the remaining patient was converted 2 years after surgery (BMI 31) to gastric bypass or gastric pouch dilatation. Patient follow-up at 1, 3, 5, and 7 years was 48/52 (92.3%), 37/42 (88.1%), 25/33 (75.7%), and 10/10, respectively. At these times, mean BMI was 35.9 +/- 8.4, 37.8 +/- 11.27, 34.9 +/- 12.2, and 29.7 +/- 5.2 Kg/m(2). Mean %EWL at the same time was 45.6 +/- 29.6, 39.7 +/- 38.1, and 55.6 +/- 29.2. Five/25 (20%) patients had <=25% EWL at 5 years follow-up, while none of the 10 patients subject to follow-up at 7 years had <=25% EWL. CONCLUSIONS: Lap-Band System is an interesting option for teenagers suffering obesity and its related comorbidities, which deserves further investigation.
BACKGROUND: The use of the Bio-Enterics intra-gastric balloon (BIB) has been shown to be a safe and effective procedure for the temporary treatment of morbid obesity. We conducted a retrospective comparative analysis of the weight loss in patients that after BIB removal underwent bariatric surgery and those who did not wish surgery.

METHODS: From January 2000 to March 2004, 182 BIBs were positioned in 175 patients (104 F / 71 M; mean age 37.1 +/- 11.6 years, range 16-67; mean BMI 54.4 +/- 8.1 kg/m(2), range 39.8-79.5; mean %EW 160.8 +/- 32.9% range 89-264). Patients were excluded from this study who had emergency BIB removal for balloon rupture (n=2, 1.1%) and for psychological intolerance (n=7, 7.8%). All patients were scheduled for a bariatric operation, before BIB positioning. After BIB removal, a number of patients now declined surgery. Consequently, patients were allocated into 2 groups: Group A in whom BIB removal was followed by bariatric surgery (Lap-Band((R)), laparoscopic gastric bypass, duodenal switch) (n=86); Group B patients who after BIB removal refused any surgical procedure (n=82). Both groups were followed for a minimum of 12 months.

Results were reported as mean BMI and %EWL +/- SD. Statistical analysis was done by Student t-test or Fisher’s exact test, with P<0.05 considered significant.

RESULTS: Mean BMI and mean %EWL in the 166 patients at time of removal were 47.3 +/- 8.1 kg/m(2) and 32.1 +/- 16.6%, respectively. At the same time, mean BMI was 47.6 +/- 6.9 and 48.1 +/- 6.5 kg/m(2) in group A and B (P=NS). At 12 months follow-up (100%), mean BMI was 35.1 kg/m(2) in Group A (BIB + surgery) and 51.7 kg/m(2) in Group B (BIB alone) (P<0.001). CONCLUSIONS: After BIB removal, half (49.4%) of the patients scheduled for surgery refused a bariatric operation. These patients returned to their mean initial weight at 12 months follow-up. Therefore, bariatric surgery after BIB removal is highly recommended.
We present our prospective comparative study on 60 patients subjected to two types of gastric restrictive procedures, i.e. Vertical Banded Gastroplasty (VBG) and Laparoscopic Adjustable Gastric Banding (LAGB) at King Abdul Aziz University Hospital, Jeddah, Saudi Arabia. The aim of our study was to compare weight reduction after both procedures. Thirty patients had VBG and thirty had LAGB based upon informed consents. The age, sex and preoperative weight and BMI were comparable in both groups. Excess weight loss of 87% was achieved in the VBG group while only 50% was noticed in the LAGB group at 6 months postoperatively.

95. Avinoach E., Landsberg L., Mizrahi S.,
Vertical Laparoscopic Gastric Banding for Morbidly Obese Patients,
*Obesity Surgery*, 9, 1999, 351.
(LAP-BAND® System Congress Presentation Abstract)

96. Avinoach E., Landsberg L., Mizrahi S., Ovnat A., Charuzi I.,
Comparison between Laparoscopic Gastric Banding and Gastric Bypass Operations for Morbid Obesity – The First Four Years after Surgery,
*Obesity Surgery*, 10, 2000, 326.
(LAP-BAND® System Congress Presentation Abstract)

97. Avinoach E., Landsberg L., Mizrahi S.,
Laparoscopic Vertical Gastric Banding-Five Years Experience,
(LAP-BAND® System Congress Presentation Abstract)

98. Avinoach E., Landsberg L., Mizrahi S.,
Laparoscopic Gastric Banding for Super Obese Patients –Six Years Experience,
*Obesity Surgery*, 13, 2003, 543.
(LAP-BAND® System Congress Presentation Abstract)

99. Avinoach E., Landsberg L., Mizrahi S.,
Laparoscopic Gastric Banding for Morbid Obese Adolescents,
*ASBS Presentation*, 2004, 34.
(LAP-BAND® System Congress Presentation Abstract)
100. Avinoach E., Landsberg L., Mizrahi S.,
    Laparoscopic Gastric Banding for Super-Obese Patients – 6 Years Experience,
    (LAP-BAND® System Congress Presentation Abstract)

101. Avinoach E., Moizrahi S.,
    Gastric banding for morbidly obese adolescents and old patients,
    (LAP-BAND® System Abstract)

102. Avinoach E, Landsberg L, Mizrahi S,
    Gastric Banding for Morbidly Obese Adolescents,
    *Surgery for Obesity and Related Diseases*, 2, 2006, 313.
    (LAP-BAND® System Abstract)

103. Avinoah E, Lansdberg L, Mizrahi S,
    Proximal Gastric Banding after Failed Vertical Gastroplasty,
    *Obesity Surgery*, 16, 2006, 973.
    (LAP-BAND® System Abstract)

104. Aviram N., Rabner J., Kaiser S., Jaffin B., Greenstein R.,
    Pre-Operative Evaluation of the Anatomy and Function of the Esophagus in
    Laparoscopic Adjustable Gastric Banding: Implications for Patient Selection,
    (LAP-BAND® System Congress Presentation Abstract)

105. Avital S., Szomstein S., Brasesco O., Liberman M., Rosenthal R.,
    Laparoscopic Gastric Bypass in Hypothyroid Morbidly Obese Patients - Prevalence and
    Short Term Outcome,
    (Laparoscopic Gastric Bypass and LAP-BAND® System Congress Presentation Abstract)

106. Avruts O., Michalevsky V., Sibirsky O., Haskel L., Durst A.,
    Diagnosis and Treatment of Infection and Technical Complications Associated with
    Porttube System after the First 100 Laparoscopic Adjustable Gastric Bandings,
    (LAP-BAND® System Congress Presentation Abstract)
Bucci A.,
Modifications of Metabolic and Cardiovascular Risk Factors after Weight Loss Induced by Laparoscopic Gastric Banding,
*Obesity Surgery*, 12, 2002, 77-82.
(LAP-BAND® System Article)

BACKGROUND: The well-known inverse relation between life expectancy and BMI, particularly in morbid obesity, is presumably in large part due to multiple cardiovascular and metabolic co-morbidities. Severely obese patients treated with laparoscopic adjustable silicone gastric banding (LASGB) were evaluated for such risk factors before and 1 year after LASGB. METHODS: 130 individuals (age 20-66, BMI 34-59 kg/m2) who underwent LASGB between 1996 and 2000 were studied; 50 of them were available for reevaluation 12 months after surgery. The presence and severity of diabetes (DM), hypertension (HTN), hypercholesterolemia (HC) and hypertriglyceridemia (HT) were assessed before and after surgery. In 18 of them erythrocyte sedimentation rate (ESR) were also measured. RESULTS: Co-morbidities were highly prevalent at the initial evaluation: DM 10%, HTN 32%, HC 37%, HT 27%. In the subgroup reevaluated after surgery, prevalence of DM decreased from 15% to 6%, HTN from 37% to 25%, HC from 36% to 25%, and HT from 29% to 13%, with an average BMI loss from 44.1 to 35.9. ESR decreased from a preoperative value of 36.7 +/- 22.6 mm/hr to 18.3 +/- 11.9 mm/hr at 1 year (p < 0.001). CONCLUSION: Morbidly obese subjects respond to LASGB with an impressive reduction of co-morbidities which is sustained for at least 1 year, well after the initial acute negative energy balance and when weight tends to stabilize. The high prevalence of elevated ESR, which has been considered a strong predictor of coronary mortality, confirms previous reports of its association with obesity, and the clear tendency to normalization with weight loss may represent a further element contributing to lower morbidity.

Weight Loss Following Adjustable Gastric Banding and Conventional Medical Treatment: A Controlled Study,
(LAP-BAND® System Congress Presentation Abstract)

109. Badiali M., Masoni L., Montori J.,
Minilaparotomy For LAP-BAND® Apposition,
*Obesity Surgery*, 10, 2000, 325.
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Gastric banding (GB) has been used for treatment of morbid obesity. METHODS: a banding device, introduced by Broadbent and consisting of a self-blocking nylon strip covered with a silicone tube, was used in 13 patients who have completed 1-year follow-up. This device was used for its mechanical properties, biocompatibility, ease of insertion and low cost. RESULTS: at 1 year, mean excess weight loss was 51.6%, with all but one patient losing more than 25% of excess weight. Associated illnesses resolved. There were two complications (15%): one patient required band removal for self-induced vomiting and one patient required repair of an incisional hernia.

CONCLUSIONS: GB has had good results thus far. Reported differences depend on materials, stoma diameter, pouch size, and developing techniques.
**111.** Ballantyne GH, Farkas D, Laker S, Wasielewski A,
*Short-term Changes in Insulin Resistance following Weight Loss Surgery for Morbid Obesity: Laparoscopic Adjustable Gastric Banding versus Laparoscopic Roux-en-Y Gastric Bypass, Obesity Surgery, 16, 2006, 1189-1197* (LAP-BAND® System Article)

**BACKGROUND:** Laparoscopic adjustable gastric banding (LAGB) and laparoscopic Roux-en-Y gastric bypass (LRYGBP) both effectively treat the insulin resistance associated with type 2 diabetes mellitus (T2DM). Restriction of caloric consumption, alterations in the entero-insular axis or weight loss may contribute to lowering insulin resistance after these procedures. The relative importance of these mechanisms, however, following LAGB and LRYGBP remain unclear. The aim of this study was to compare directly the short-term changes in insulin resistance following LAGB and LRYGBP in similar populations of patients.

**METHODS:** Patient preference determined operation type. The Homeostasis Model Assessment for Insulin Resistance (HOMA IR) was used to measure insulin resistance. Preoperative values were compared to postoperative levels obtained within 90 days of surgery. Significant differences between groups were tested by ANOVA.

**RESULTS:** There were no significant preoperative differences between groups. The 56 LAGB patients had a mean age of 42.5 years (25.7-63), BMI of 45.5 kg/m(2) (35-66) and preoperative HOMA IR of 4.1 (1.4-39.2). 75% of LAGB patients were female and 43% had T2DM. The 61 LRYGBP patients had a median age of 39.9 years (22.1-64.3), BMI of 45.0 kg/m(2) (36-62), and preoperative HOMA IR of 5.0 (0.6-56.5). 79% of LRYGBP patients were women and 44.3% had T2DM. Median follow-up for LAGB patients was 45 days (18-90) and for LRYGBP patients 46 days (8-88 days). LAGB patients had a median of 14.8% excess weight loss (6.9%-37.0%) and LRYGBP patients 24.2% (9.8%-51.4%). Postoperative HOMA IR was significantly less after LRYGBP, 2.2 (0.7-12.2), than LAGB, 2.6 (0.8-29.6), although change in HOMA IR was not significantly different. Change in HOMA IR for both groups did not vary with length of follow-up or weight loss but correlated best with preoperative HOMA IR (LAGB r=0.8264; LRYGBP r=0.9711).

**CONCLUSIONS:** Both LAGB and LRYGBP significantly improved insulin resistance during the first 3 months following surgery. Both operations generated similar changes in HOMA IR, although postoperative HOMA IR levels were significantly lower after LRYGBP. These findings suggest that caloric restriction plays a significant role in improving insulin resistance after both LAGB and LRYGBP.

**112.** Baltasar A, Serra C, Bou R, Bengochea M, Perez N,
*Bariatric Operations in the Community Setting, Obesity Surgery, 16, 2006, 1008.* (LAP-BAND® System Abstract)

**113.** Barba C., Newman R., Burke-Martindale C,
*The Use of U-Clip Anastomotic Device in LAP-BAND, ASBS Presentation, 2004, 35.* (LAP-BAND® System Congress Presentation Abstract)
114. Bardaro S, Patterson E, Jan J, July L, Poole R, Ude L, Hong D, 
Is the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) Really Useful to Predict 
Outcome after Bariatric Surgery? Retrospective Analysis of Six Hundred Forty-Four 
Bariatric Patients, 
Surgery for Obesity and Related Diseases, 2, 2006, 341. 
(LAP-BAND® System Abstract)

Pregnancy after laparoscopic adjustable gastric banding: perinatal outcome is favorable 
also for women with relatively high gestational weight gain, 
(LAP-BAND® System Article)

BACKGROUND: The prevalence of morbid obesity is increasing steadily among women of 
reproductive age. In addition to the well-known comorbidities of the disease, it has been shown that 
the pregnancy outcome for obese women is worse than for women with a normal body mass index. 
This study aimed to evaluate the pregnancy and perinatal outcomes for women who underwent 
laparoscopic adjustable gastric banding (LAGB) because of morbid obesity. METHODS: This 
prospective, population-based study was conducted in a general surgery clinic of a tertiary hospital 
serving as a referral center for bariatric operations. All the patients underwent LAGB by the pars 
flaccida technique. A database containing information regarding age, pre- and postoperative weight 
and body mass index, weight gain, and LAGB-related or -unrelated complications during pregnancy 
was constructed for all women of childbearing age who underwent LAGB. A questionnaire was 
designed to provide perinatal data concerning both mother and neonate. RESULTS: The 74 women 
enrolled in this study had 81 single tone pregnancies. Their body mass index decreased significantly 
after LAGB, from 43.3 +/- 5.8 to 30.3 +/- 3 kg/m2 at conception (p < 0.0001). The average time to the 
first live birth after surgery was 27 +/- 3 months. Band slippage was diagnosed and treated 
laparoscopically in two patients (2.4%). Weight gain during pregnancy was 10.6 +/- 2.1 kg. The rates 
of pregnancy-induced hypertension and gestational diabetes were 7.4% and 16% of all pregnancies, 
respectively. In 17 cases (20%), cesarean section was performed. Delivery occurred after 39.1 weeks of 
gestation. The mean birth weight was 3.09 +/- 0.5 kg. Major congenital anomalies, postnatal 
hypoglycemia, symptomatic polycythemia or neonatal death were not recorded. CONCLUSIONS: 
The findings show that LAGB is safe for both mother and newborn during gestation and delivery.

Laparoscopic Adjustable Silicone Gastric Banding (LASGB) vs Laparoscopic Vertical 
Banded Gastroplasty (LVBG): Intermediate Results of a Prospective, Comparative, 
Multi-Center Trial, 
(LAP-BAND® System Congress Presentation Abstract)
117. Baton O., Guyon P., Ollat D., Martin J-M., Bonnet S., Duverger V., Vergos M.,
    L’Anneau Gastrique – Une indication controversée dans le traitement de l’obésité
    morbide,
    (LAP-BAND® System Article – in French)

    No abstract available

118. Bedda S., Chevallier J.M., Zinzindohoue F., Douard R., Berta J.L.,
     Altman J.J., Cugnenc P.H.,
     Quality of Life is Improving after LAP-BAND Gastric Banding for Morbid Obesity,
     (LAP-BAND® System Congress Presentation Abstract)

119. Beduneau G., Dominique S., Broussier P-M, Nouvet G., Thiberville L.,
     Pneumopathie d’inhalation recidivante après pose d’un anneau gastrique pour obésité,
     (LAP-BAND® System Article)

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120. Beduneau G, Dominique S, Broussier PM, Nouvet G, Thiberville L,
     Recurrent Aspiration Pneumonia after a Gastric Banding for Treatment of Obesity,
     (LAP-BAND® System Article)

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121. Belachew M., Legrand M.J., Defechereux T., Burtheret M.P., Jacquet N.,
     Laparoscopic Adjustable Silicone Gastric Banding in the Treatment of Morbid Obesity, a
     Preliminary Report,
     Surgical Endoscopy, 8, 1994, 1354-1356.
     (LAP-BAND® System Article)

A first approach to laparoscopic placement of the adjustable silicone gastric band (ASGB) was begun
in our institution in 1992. This work started on an animal model first. In the animal lab, details of
laparoscopic dissection around the stomach have been defined. A new prototype of the adjustable
silicone band for laparoscopic use has been devised. Four voluntary patients underwent this
operation on the 1st, 2nd, and 3rd of September 1993. All the patients were female and the average
weight was 116 kg (102-120 kg). The mean body mass index was 43 kg/m2 (36-49 kg/m2). No major
operative difficulty was encountered. Immediate postoperative outcome was uneventful.
BACKGROUND: Laparoscopic placement of the adjustable silicone gastric band (ASGB) was begun in our institution in 1992. METHODS: this work started on the animal model first. In the animal laboratory, details of laparoscopic dissection around the pig's stomach were defined. A new prototype of the adjustable silicone band for laparoscopic use was devised. The first human laparoscopic ASGB procedure was performed in our institution on September 1, 1993; 37 patients have undergone this operation by May, 1994. There were 33 women and four men. The average pre-operative weight was 114 kg (92-160 kg). The mean BMI was 42 kg m\(^2\) (37-50 kg m\(^2\)). RESULTS: no major operative difficulty has been encountered. Immediate post-operative outcome was uneventful except for one patient. CONCLUSION: the technique of laparoscopic ASGB is described. Preliminary weight loss is comparable to open ASGB and vertical gastroplasty, provided that the surgeon has mastered laparoscopy and open bariatric surgery.

123. Belachew M., Monami B.,
Weight Loss Comparison between Vertical Banded Gastroplasty (VBG), Open Adjustable Silicone Gastric Banding (ASGB) and Laparoscopic Adjustable Silicone Gastric Banding (LASGB),
(LAP-BAND® System Congress Presentation Abstract, VBG Abstract, ASGB Abstract)

124. Belachew M., Monami B.,
Laparoscopic Adjustable Silicone Gastric Banding Technique And Preliminary Results,
(LAP-BAND® System Congress Presentation Abstract)
Three hundred and twenty Laparoscopic Adjustable Silicone Gastric Banding (LASGB) procedures have been performed in our institution from September, 1993 to January, 1997 for the treatment of morbid obesity. Before the first human operation a new prototype of the silicone band for laparoscopic use has been devised and a new surgical protocol developed in a preliminary animal lab programme. All the patients were morbidly obese (92-200 kg). The conversion rate to laparotomy has been very low (1.25%). Early complications have been rare. Pouch dilatation and/or stomach slippage has been the only significant late complication. The rate of this complication has been considerably improved by reducing the pouch volume and by putting more gastro-gastric sutures. The post-operative weight loss of LASGB has been comparable with our series of VBG and ASGB.
We introduced open adjustable silicone gastric banding (ASGB) for treatment of morbid obesity in our institution in 1991. It was done in a prospective study comparing ASGB with vertical banded gastroplasty (VBG) with regard to weight loss. After 200 cases of open ASGB and 210 VBG procedures and the encouraging weight loss results, we started laparoscopic placement of the adjustable silicone band. The initial work was done in an animal laboratory program where a new surgical protocol has been established. Details of the laparoscopic dissection around the stomach in a deep operative field and fatty atmosphere have been developed, and a laparoscopically implantable version of the adjustable silicone band (LAGB) has been devised. The first human laparoscopic ASGB procedure was performed in our institution on September 1, 1993. Altogether 350 patients had undergone adjustable silicone gastric banding (LASGB) procedures by May 1997 (277 women, 73 men). All the patients were morbidly obese, with an average preoperative weight of 118 kg (92-200 kg). The mean BMI was 43 kg/m² (36-65 kg/m²). The conversion rate to laparotomy has been low (1.4%). Early complications have been rare, and pouch dilatation and stomach slippage have been the only significant late complications. The rate of these complications has been considerably improved by reducing the pouch volume and using more gastrogastric sutures. Evaluation of postoperative weight loss of LASGB patients compared with our VBG and ASGB (open) patients showed a similar curve.

BACKGROUND: Laparoscopy in severely obese patients is a surgical challenge due to the deep operative field, massive visceral fat, hypertrophic and steatotic liver and inadequate instrumentation. However, performing bariatric surgery by laparoscopy permits a minimally invasive procedure in patients who are usually considered high risk because of their morbid obesity. The challenge was to overcome technical difficulties of laparoscopy in the morbidly obese. METHOD: We needed to develop a new surgical protocol for the gastric approach in severely obese patients. The existing silicone band could not be used for laparoscopy, and a new prototype of the silicone band for laparoscopic use was designed. Because of ethical reasons, we began this work on the animal model. In an animal lab program using pigs, we refined the surgical technique of the laparoscopic approach. A new design of the adjustable silicone band for laparoscopic use was developed. RESULTS: After a 1-year animal lab program and approval by the ethics committee, we performed our first human laparoscopic adjustable gastric banding on September 1st, 1993. CONCLUSION: The development of the Lap-Band from concept to animal lab, ending in clinical application, has been an advance in bariatric surgery.

130. Belachew M., Legrand M., Vincent V.,
History of LAP-BAND®: From Dream to Reality,
(LAP-BAND® System Article)

131. Belachew M., Desaive C., Belva P.,
Long Term Results of Laparoscopic Adjustable Gastric Banding in Three Major Centers in Belgium,
(LAP-BAND® System Congress Presentation Abstract)

132. Belachew M.,
Reply to Broadbent Letter to the Editor, First Successful Laparoscopic Gastric Band,
(LAP-BAND® System - Other)
The first human laparoscopic adjustable gastric banding procedure, using the LAP-BAND device (INAMED Health, Santa Barbara, CA), was performed on September 1, 1993. Because of its minimal invasiveness, reversibility, and adjustability, it is considered a breakthrough in bariatric surgery. Placement of the LAP-BAND is the least invasive operative procedure that can be offered to patients with morbid obesity. The technique has evolved since it was first performed on humans. This evolution mainly concerns the band’s position in relation to the gastric wall, which necessitated modifying the posterior dissection for band passage and placement. These technical changes have been aimed at reducing morbidity, especially the major complication, prolapse/slippage or pouch dilatation above the band. Based on personal experience and a review of the literature, the authors describe how the surgical technique has developed since the introduction of the LAP-BAND. The advantages of the LAP-BAND have contributed to its increasing use throughout the world. The authors believe that the approach represents a paradigm shift in bariatric surgery.

BACKGROUND: Since the first laparoscopic adjustable gastric banding (LAGB) operation on September 1, 1993, there have been important publications related to this procedure. The majority of the articles reported surgical technique and short-term results. Long-term results of LAGB are lacking. The authors report long-term data (at least 4 years) from 3 major bariatric centers in Belgium that perform LAGB routinely. METHODS: The 3 centers applied the same patient selection criteria, the same standard surgical technique, the same laparoscopic band (Lap-Band) and the same follow-up program. 763 patients have been enrolled. Sex ratio was 22% male/78% female. Mean age was 34 years, and mean preoperative BMI was 42 kg/m2. RESULTS: The follow-up rate was 90%, and the minimum follow-up time was 4 years. The average BMI after 4 years was 30 kg/m2. Early complications were: gastric perforation 4 (0.5%); large bowel perforation 1 (0.1%); bleeding 1 (0.1%); and conversion to open 10 (1.3%). Late complications were: erosion 7 (0.9%); total food intolerance 59 (8%); access port problems 20 (2.5%); re-operations 80 (11.1%); death 1 (0.1%). CONCLUSION: Long-term results of LAGB have been rarely reported, although publications on the procedure are copious. Our long-term data found that BMI evolution is good, the complication and re-operation rates are acceptable and the overall long-term results of the Lap-Band system are good.
Outcomes of a Mild Hypocaloric Diet and LAP-BAND Treatment for Obesity,
*Int’l Journal of Obesity, 24, Supplement 1, 2000, 105.*
(LAP-BAND® System Congress Presentation Abstract)

136. Belva P., Takieddine M., Verroken O., Vaneukem P.,
Laparoscopic Adjustable Silicone Gastric Banding Experience and Results in About 45 Cases,
*Obesity Surgery, 5, 1995, 275.*
(LAP-BAND® System Congress Presentation Abstract)

137. Belva P., Takieddine M., Lefebvre J.C., Vaneukem P.,
Laparoscopic Gastric Banding with LAP-BAND® Results and Complications (Belgian and European Data),
(LAP-BAND® System Congress Presentation Abstract)

138. Belva P., Takieddine M., Lefebvre J.C., Vaneukem P.,
Laparoscopic LAP-BAND®: Gastroplasty: European Results,
*Obesity Surgery, 8, 1998, 364.*
(LAP-BAND® System Congress Presentation Abstract)

139. Belva P.,
Presentation to European Surgeons at Roundtable,
*Breda, 2/20/98.*
(LAP-BAND® System Congress Presentation Abstract)

140. Belva P., Vertruyen M., Takleddine M., Lefebvre J.C., Cadiere G., Vanenkem P.,
Surgical Treatment of Complications of LAP-BAND® Gastroplasty,
*Obesity Surgery, 9, 1999, 341.*
(LAP-BAND® System Congress Presentation Abstract)

141. Belva P., Desaive C., Belachew M., Vaneukem P.,
Long Term Results of Laparoscopic Gastric Banding with LAP-BAND®,
(LAP-BAND® System Congress Presentation Abstract)

142. Benavides R, Powell R, Wong A, Nguyen H,
Improvement of Clinical Outcomes for Laparoscopic Gastric Banding Patients by Using the INSUFLOW Pre-Conditioning Gas Device for the Peritoneum,
*Surgery for Obesity and Related Diseases, 2, 2006, 303.*
(LAP-BAND® System Abstract)
Preliminary Results of a Prospective Multi-Centric Study Using the Heliogast® Ring: 415 Patients,
(LAP-BAND® System Congress Presentation Abstract)

144. Benchetrit S.,
Results of a Retrospective Comparative Study Between the Heliogast® and LAP-BAND® Rings in 850 Patients,
(LAP-BAND® System and Heliogast® Congress Presentation Abstract)

145. Benchetrit S.,
Comparative Study of the Biomechanical and Physical Properties of the Principal Rings Used for Gastric Banding,
(LAP-BAND® System, SAGB and Heliogast® Congress Presentation Abstract)

146. Bende J., Ursu M., Csiszar M.,
Initial Experience with Laparoscopic Adjustable Gastric Banding in Hungary,
*Obesity Surgery* 14, 2004, 236-238.
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) was started in Hungary in 1998. We used Lap-Band and SAGB devices. In this study we present our experience through the learning curve. METHODS: From Jan 1999 to Dec 2002, 54 patients underwent laparoscopic surgery for morbid obesity in our department, using the Lap-Band and SAGB. There were 33 men and 21 women, with median age 42 (range 20-64), and preoperative BMI 50 kg/m(2) (range 41-66). All underwent LAGB, except one patient who had laparoscopic vertical banded gastroplasty. The procedures used the 4-trocar technique. RESULTS: The first patient required reoperation because of gastric rupture from drinking sparkling mineral water despite of our advice. Excluding this, we had no intraoperative or short-term postoperative complications. Mean operating time was 82 minutes (range 55-192), and hospital stay was 3 days. Followup ranges from 1 to 36 months. Mean weight loss was 47 kg at 12 months and 67 kg at 36 months. Mean BMI fell to 29 kg/m(2). CONCLUSION: With its safety and effectiveness, LAGB has been a good choice for handling morbidly obese patients in our early experience.
BACKGROUND: For some patients, especially those with a higher BMI, a non-selective Lap-Band placement using the pars flaccida approach with application of the small-diameter bands (9.75 and 10 cm) may be too tight or may require significant gastroesophageal junction dissection and thinning. In such a case, the major perioperative complication is acute obstruction immediately after surgery. We review the etiology of obstructive complications that present postoperatively in the first 24 hours.

CASE REPORTS: Acute postoperative stoma obstruction (esophageal outlet stenosis) was observed in 5 patients who underwent 9.75-cm Lap-Band placement for morbid obesity. 2 of these patients had a postoperative upper GI series showing a misplaced band with gastric slippage, and repeat operation was required. 3 patients had gastric obstruction without slippage. Of the latter, 1 patient insisted that the band be removed rather than being replaced with a longer one, and the remaining 2 were managed with conservative treatment, involving extended hospitalization until the edema subsided and the patient slowly regained the ability to swallow. CONCLUSION: Obstructive symptoms associated with the Lap-Band using the pars flaccida approach can be addressed conservatively in most patients or by minimally invasive surgery; however we believe that routine use of the 11-cm Lap-Band for the pars flaccida approach could easily prevent this early complication.
BACKGROUND: Although adjustable gastric banding shows good results concerning weight loss, several complications such as excessive vomiting, total dysphagia, and slipping of the stomach through the band with pouch dilatation may occur rather frequently. Different types of adjustable bands are available to prevent these short- and mid-term complications. METHODS: In this retrospective study, 120 consecutive laparoscopic adjustable gastric bandings were performed. In group I, 50 patients were treated with adjustable silicone gastric banding (ASGB) by an intragastric balloon calibration technique. Group II (n = 29) received the same band by a surgical technique with tunneling behind the esophagus toward the angle of His. Group III (n = 41) received Swedish adjustable gastric banding (SAGB) by the same technique as in Group II. RESULTS: Weight loss was approximately 15% of the excess weight after 3 months, 30% after 6 months, and 45% after 12 months in all groups. Total dysphagia was significantly more frequent in Groups I and II. The incidence of slipping of the band and pouch dilatation was more frequent in Group II. CONCLUSION: The diameter of the ASGB band is rather small and can cause total dysphagia independently of surgical technique. The SAGB is easy to perform and seems less vulnerable to complications like dysphagia and slipping of the band, probably because of the individual adjustment of the stoma diameter during surgery and good fixation of both band and ventral pouch with separate posterolateral sutures.

149. Berry M., Conoman H., Urrutia L., Gallegos M., Nieto L.,
Foreign Body Reaction to Silicon after Adjustable Silicone Band Surgery,
(LAP-BAND® System Congress Presentation Abstract)

150. Berry M., Urrutia L., Conomon H., Aravena V.,
Laparoscopic gastric banding: an effective and safe technique in obesity treatment,
(LAP-BAND® System Abstract)

151. Berry M, Guelf CLCM, Martinez C, Urrutia L,
Laparoscopic Adjustable Gastric Banding in Adolescent Obese Patients,
Obesity Surgery, 16, 2006, 984.
(LAP-BAND® System Abstract)

152. Berry M, Martinez C, Urrutia L,
Laparoscopic Adjustable Gastric Banding for BMI <35,
(LAP-BAND® System Abstract)
153. Bertrand J.C., Mazarguil P., Peraldi D., Gelarda E., Di Somma C.,
Laparoscopic Treatment of Complications Following Gastric Banding,
*Obesity Surgery, 8, 1998, 384.*
(LAP-BAND® System Congress Presentation Abstract)

154. Bertrand J.C., Mazarguil P., Peraldi D., Gelarda E., Di Somma C.,
Laparoscopic Degastrogastroplasty. The Laparoscopic Treatment of Complications
Linked to Gastric Banding,
*Obesity Surgery, 8, 1998, 390.*
(LAP-BAND® System Congress Presentation Abstract)

Ledinsky M,
Bariatric Surgery in Croatia,
*Obesity Surgery, 16, 2006, 1022.*
(LAP-BAND® System Abstract)

156. Bessler M., Daud A., Olivero-Rivera L., Davis D.,
Adjustable Gastric Banding as a Revisional Bariatric Procedure after Failed Gastric
Bypass,
*ASBS Presentation, 2004, 17.*
(LAP-BAND® System Congress Presentation Abstract)

157. Bessler M., Daud A., DiGiorgi M., Davis D.,
Routine Preoperative Esophageal Manometry Does Not Predict Outcome of
Laparoscopic Adjustable Silicone Gastric Banding,
*ASBS Presentation, 2004, 19.*
(LAP-BAND® System Congress Presentation Abstract)

158. Bessler M., Daud A., DiGiorgio M., Olivero-Rivera L., Davis D.,
Early U.S. Outcomes of Gastric Bypass versus Laparoscopic Adjustable Silicone Gastric
Banding for Morbid Obesity,
*ASBS Presentation, 2004, 35-36.*
(LAP-BAND® System Congress Presentation Abstract)

159. Bessler M., Daud A., DiGiorgi M., Ude A., Davis D.,
Early US outcomes of laparoscopic gastric bypass versus laparoscopic
adjustable gastric banding for morbid obesity,
*2005 SAGES Abstract No. S073, 98.*
(LAP-BAND® System Abstract)
160. Bessler M., Daud A., DiGiorgi M., Olivero-Rivera L., Davis D.,
Adjustable Gastric Banding as a Revisional Bariatric Procedure after Failed Gastric Bypass,
(LAP-BAND® System Article)

No abstract available

161. Bhesania Z., Boutt A.,
Impact of number of patient follow-up visits on weight loss after LAP-BAND surgery,
*Surgery for Obesity and Related Diseases 1*, 2005, 262.
(LAP-BAND® System Abstract)

162. Biesheuvel T., Sintenie J., Pels Rijcken T., Hoitsma, H.,
Laparoscopic Adjustable Silicone Gastric Banding for Treating Morbid Obesity in the
Center of Amsterdam,
*Obesity Surgery, 8*, 1998, 360.
(LAP-BAND® System Congress Presentation Abstract)

Laparoscopic Bariatric Surgery – An Effective Treatment for Obesity Related Diabetes,
*Surgery for Obesity and Related Diseases, 2*, 2006, 321.
(LAP-BAND® System Abstract)

164. Blanco S., Carbajo E., Abello M., Hernandez M., Del Castillo D.,
Prospective Study of Complications and Results in the Treatment of Morbid Obesity with
Laparoscopic Gastric Banding,
*Obesity Surgery, 13*, 2003, 546.
(LAP-BAND® System Congress Presentation Abstract)
165. **Blanco-Engert R., Weiner S., Pomhoff I., Matkowitz R., Weiner R.,** Outcome after Laparoscopic Adjustable Gastric Banding, Using the LAP-BAND\(^\circledR\) and the Heliogast\(^\circledR\) Band: A Prospective Randomized Study, *Obesity Surgery*, 13, 2003, 776-779. (LAP-BAND\(^\circledR\) System Article)

**BACKGROUND:** A study was performed to assess the usefulness and efficacy of a new type of band (Heliogast) for laparoscopic adjustable gastric banding (LAGB) for the treatment of morbid obesity, compared with the Lap-Band. **METHOD:** From January to May 2001, a prospective randomized study of 60 LAGB procedures was conducted: group I (n=30), the Lap-Band system (INAMED); group II (n=30), the Heliogast band (Helioscopie). We implanted the devices using the 2-step technique (pars flaccida to peri-gastric) by laparoscopy. Port systems were placed on the rectus sheath and were fixed by non-absorbable sutures. Follow-up of all patients was a minimum of 12 months. **RESULTS:** There were no differences in operating-time, intra-operative complications, or weight loss during the first 4 weeks after surgery. However, with increasing time, more complications with the Heliogast band and differences in weight loss favoring the Lap-Band became significant. **CONCLUSION:** Based on the results of this study, we recommend that new bands have independent clinical evaluation before commercialization.


**BACKGROUND:** Among bariatric operations, laparoscopic adjustable gastric banding (LAGB) has been the preferred one in Europe and Australia, and has become recently popular in the USA. Like every surgical procedure, however, it is not devoid of specific complications, like slippage, band erosion, outlet obstruction and port problems. Assuming that the absence of the pouch may avoid postoperative slippage, we introduced the technique of esophago-gastric placement, instead of the original gastric banding technique. A further technical variant, introduced in June 2002, consists of suturing the gastric fundus to the left hemidiaphragm, using two non-resorbable sutures and pledgets.

**METHODS:** Between January 1999 and July 2005, 400 LAGBs have been placed in 90 males and 310 females, with the technical variants above. Mean age was 42 (range 17-69 years), and mean BMI was 44.8 kg/m(2) (range 33-67). **RESULTS:** Mean hospital stay was 2.5 days (range 1-17). Mortality has been zero. Major complications included: 16 slippages (after a range of 6-45 months), 5 outlet obstructions (immediately after the operation), and one intragastric migration (after 2 years). Minor complications included 18 port problems. Since the introduction of gastric fundus fixation to the diaphragm in 2002, gastric slippage has decreased from 8% to 0.9%. BMI has decreased from 44.8 to 32 kg/m(2) at 60 months.

**CONCLUSIONS:** The technique herein presented is effective and useful to prevent postoperative gastric slippage. It does not induce pseudo-achalasia, if strictly controlled. In fact, it is avoided by the patient due to the immediate appearance of dysphagia, in the case of wrong food ingestion. Long-term clinico-radiological follow-up confirms that the technique is safe and effective in motivated patients with good compliance and willing to undergo periodic studies.


HYPOTHESIS: Outcome following laparoscopic adjustable gastric banding (LAGB) in super morbidly obese patients is significantly worse compared with the standard laparoscopic Roux-en-Y gastric bypass (LRYGB). DESIGN: Prospective case series. SETTING: Community teaching hospital (490 beds). PATIENTS: A prospectively maintained database identified patients who underwent operative treatment for morbid obesity between February 2001 and June 2004. The study group included super morbidly obese patients (body mass index >50 [calculated as weight in kilograms divided by the square of height in meters]) following LAGB and LRYGB. INTERVENTIONS: Among 106 patients with super morbid obesity, 60 (57%) and 46 (43%) underwent LAGB and LRYGB, respectively. MAIN OUTCOME MEASURES: Patient demographics, weight loss, percentage of excess weight loss, change in body mass index, early (<30 days) and late (≥30 days) complications, reoperations, medical comorbidity, and patient satisfaction were studied. Analysis was performed using the t test and Pearson chi 2 analysis. RESULTS: Overall median follow-up was 16.2 months (range, 1-40 months). Preoperative factors of patient age, sex, weight, body mass index, and medical comorbidity were similar between the 2 groups. Compared with LRYGB, patients who underwent LAGB experienced a greater incidence of late complications (P < .05), reoperations (P < .04), less weight loss (P<.001), and decreased overall satisfaction (P < .006). Likewise, patients who underwent LRYGB had a greater resolution of concomitant diabetes mellitus (P < .05) and sleep apnea (P<.01) compared with the LAGB group. Furthermore, postoperative adjustments to achieve consistent weight loss for LAGB recipients ranged from 1 to 15 manipulations. Our single mortality was in the LAGB group. CONCLUSIONS: In super morbidly obese patients, LAGB is significantly associated with more late complications, reoperations, less weight loss, less reduction of medical comorbidity, and patient dissatisfaction compared with LRYGB. Further evaluation of LAGB in this patient population appears warranted.
172. Bozbora A., Coskun H., Özarmagan S., Erbil Y., Özbey N., Orhan Y.,
A Rare Complication of Adjustable Gastric Banding: Wernicke’s Encephalopathy,
(LAP-BAND® System Article)

**BACKGROUND:** Wernicke’s encephalopathy is an uncommon complication seen after morbid obesity surgery. Neurological and cardiac symptoms can occur. Early and adequate replacement of thiamin is crucial.

**METHODS:** A patient, who was operated by adjustable silicone gastric banding had severe vomiting 1 week after the operation. Physical examination showed no abnormalities except neurological signs consisting of ataxia, disorientation and diplopia. All radiological and biochemical parameters were in the normal range.

**RESULT:** After replacement of vitamin B1 (thiamin) intravenously 20 mg twice daily, all the neurological signs regressed day by day. Oral thiamin pills have been continued.

**CONCLUSION:** Wernicke’s encephalopathy which occurs as a result of thiamin deficiency is a rare complication that has serious morbidity with rapidly progressing neurologic symptoms, and must be treated immediately. Surgeons who treat morbidly obese patients must follow the metabolic and nutritional status of the patient.

173. Bozbora A., Coskun H., Barbaros U., Sari S., Asoglu O.,
The Effects of Gastric Bands of Different Synthetic Materials on the Gastric and Esophageal Mucosa: an Experimental Study,
*Obesity Surgery, 13*, 2003, 246-252.
(LAP-BAND® System Article)

**BACKGROUND:** Gastric and mucosal changes were studied when different synthetic materials were used for gastric banding. **METHODS:** 60 Wistar-Albino rats (weight 200-250 g, age 12 weeks) were classified into 5 groups. Gastric banding was carried out with different materials: group 1 - polytetrafluoroethylene (PTFE), group 2 - polyethylene (PE), group 3 - polypropylene (PP), group 4 - silicone; and group 5 - controls. Histopathological examination of proximal and distal gastric mucosa and esophagus were evaluated for foreign body reaction, lymphocytic infiltration, neutrophil infiltration, gastric wall invasion, and gastroesophageal reflux.

**RESULTS:** PE and PP caused a much more severe foreign body reaction that PTFE and silicone. Lymphocytic infiltration (chronic inflammation) was not significantly different between PP, PE, and PTFE, and was present in 80% of rats with these materials (P >0.05); in the silicone group, lymphocytic reaction was minimal. There was no neutrophilic infiltration in the silicone group (P =0.001), but this sign of acute inflammation was present in the other groups. However, the neutrophilic infiltration showed no difference between PE, PTFE and PP. PP, PE and PTFE migrated into the gastric wall at similar rates (no significant difference, P >0.05); in the silicone group, however, intragastric migration was not observed. With regard to gastroesophageal reflux, no significant difference was found between all the groups (P>0.05). In all groups, no histopathologic change was observed in the gastric mucosa proximal and distal to the bands.

**CONCLUSION:** Silicone was the ideal material for banding, because it had good tissue adaptation and caused no inflammatory response.
174. Bozbora A., Coskun H., Kasoglu A., Dilege E., Barbaros U.,
Effect of Gastric Banding on Ileal Mucosa,
(LAP-BAND® System Article)

No abstract available

175. Brancatisano T., Moulos G., Theodorou T.,
Concurrent laparoscopic gastric banding and hiatus hernia repair in morbidly obese patients,
(LAP-BAND® System Abstract)

176. Breitman I, Stetugovsky I, Klausner J, Abu-Abeid S,
Unusual Complications of LAP-BAND Surgery,
*Obesity Surgery, 16*, 2006, 1002.
(LAP-BAND® System Abstract)

177. Brimas G, Maleckas A, Kaselis N,
Bariatric Surgery in Lithuania: Status Quo,
*Obesity Surgery, 16*, 2006, 975.
(LAP-BAND® System Abstract)

178. Broadbent R.,
Letter to the Editor Re: Belachew Article, First Successful Laparoscopic Gastric Band,
(LAP-BAND® System - Other)

179. Broadbent R.,
Reply to Letter to the Editor Re: Oria Article,
(LAP-BAND® System - Other)

180. Brown S., Reid M., Duggiralta H.,
Adjustable Silicone Gastric Banding Adverse Events Reported to the Food and Drug Administration (FDA),
*Obesity Surgery, 13*, 2003, 201.
(LAP-BAND® Congress Presentation Abstract)
181. Buchwald H., Ikramuddin S.,
   Introduction,
   *The American Journal of Surgery (Supplement)*, 184, 2002, 1S-3S.
   (LAP-BAND® System Article)
   **No abstract available**

182. Buchwald H.,
   Overview of Bariatric Surgery,
   (LAP-BAND® System Article)
   **No abstract available**

183. Buchwald H., Ikramuddin S., Williams S.,
   Bariatric Surgery Training in the United States,
   (LAP-BAND® System Congress Presentation Abstract)
CONTEXT: About 5% of the US population is morbidly obese. This disease remains largely refractory to diet and drug therapy, but generally responds well to bariatric surgery. OBJECTIVE: To determine the impact of bariatric surgery on weight loss, operative mortality outcome, and 4 obesity comorbidities (diabetes, hyperlipidemia, hypertension, and obstructive sleep apnea). DATA SOURCES AND STUDY SELECTION: Electronic literature search of MEDLINE, Current Contents, and the Cochrane Library databases plus manual reference checks of all articles on bariatric surgery published in the English language between 1990 and 2003. Two levels of screening were used on 2738 citations. DATA EXTRACTION: A total of 136 fully extracted studies, which included 91 overlapping patient populations (kin studies), were included for a total of 22,094 patients. Nineteen percent of the patients were men and 72.6% were women, with a mean age of 39 years (range, 16-64 years). Sex was not reported for 1537 patients (8%). The baseline mean body mass index for 16 944 patients was 46.9 (range, 32.3-68.8). DATA SYNTHESIS: A random effects model was used in the meta-analysis. The mean (95% confidence interval) percentage of excess weight loss was 61.2% (58.1%-64.4%) for all patients; 47.5% (40.7%-54.2%) for patients who underwent gastric banding; 61.6% (56.7%-66.5%), gastric bypass; 68.2% (61.5%-74.8%), gastroplasty; and 70.1% (66.3%-73.9%), biliopancreatic diversion or duodenal switch. Operative mortality (< or =30 days) in the extracted studies was 0.1% for the purely restrictive procedures, 0.5% for gastric bypass, and 1.1% for biliopancreatic diversion or duodenal switch. Diabetes was completely resolved in 76.8% of patients and resolved or improved in 86.0%. Hyperlipidemia improved in 70% or more of patients. Hypertension was resolved in 61.7% of patients and resolved or improved in 78.5%. Obstructive sleep apnea was resolved in 85.7% of patients and was resolved or improved in 83.6% of patients. CONCLUSIONS: Effective weight loss was achieved in morbidly obese patients after undergoing bariatric surgery. A substantial majority of patients with diabetes, hyperlipidemia, hypertension, and obstructive sleep apnea experienced complete resolution or improvement.
BACKGROUND: There is a world epidemic of overweight, obesity, and morbid obesity, encompassing 1.7 billion people. Bariatric surgery today is the only effective therapy for morbid obesity. METHODS: E-mail requests for information were sent to the presidents of the national societies of the 31 International Federation for the Surgery of Obesity (IFSO) nations, or national groupings, plus Sweden. Responses were tabulated; calculation of relative prevalence of specific procedures was done by weighted averages. RESULTS: Responders were 26 of 32 (81%) for the general questions and 24 of 32 (75%) for the question on specific operative percentages. In the year 2002-2003, 146,301 bariatric surgery operations were performed by 2,839 bariatric surgeons; 103,000 of these operations were performed in USA/Canada by 850 surgeons. The earliest start date for bariatric surgery was 1953 in the USA; IFSO was founded in 1995. In the year 2002-2003, 37.15% of operations were open; 62.85% laparoscopic. The 6 most popular procedures by weighted averages were: laparoscopic gastric bypass, 25.67%; laparoscopic adjustable gastric banding, 24.14%; open gastric bypass, 23.07%; laparoscopic long-limb gastric bypass, 8.9%; open long-limb gastric bypass, 7.45%; and open vertical banded gastroplasty, 5.43%; and biliopancreatic diversion/duodenal switch, 4.85%. Pooling open and laparoscopic procedures, relative percentages were: gastric bypass, 65.11%; gastric banding, 24.41%; vertical banded gastroplasty, 5.43%; and biliopancreatic diversion/duodenal switch, 4.85%. Categorizing into restrictive/malabsorptive, purely restrictive, and primarily malabsorptive, the relative distribution of procedures was 65.11%, 29.84%, and 4.85%, respectively. The number of countries performing gastric banding was 23 (95%), gastric bypass 21 (88%), vertical banded gastroplasty 19 (79%), and biliopancreatic diversion/duodenal switch 16 (67%). Purely restrictive procedures were performed in 24 (100%) of the countries, restrictive/malabsorptive in 21 (88%), and primarily malabsorptive in 18 (75%). CONCLUSIONS: Bariatric surgery is expanding exponentially to meet the global epidemic of morbid obesity. Operative procedures in bariatric surgery are in flux and specific geographic trends and shifts are evident. Yet, of the patients qualifying for surgery, only about 1% are receiving this therapy—the only effective treatment currently available.
187. Buchwald H, Kellogg T, Schneider D, Oien D, Ikrammudin S,
    Bariatric Surgery in Patients over 60,
    *Obesity Surgery*, 16, 2006, 984.
    (LAP-BAND® System Abstract)

188. Bui H., Kiroff G., Foy S.,
    Massive Pericardial Effusion Following a Laparoscopic Adjustable Gastric Banding,
    (LAP-BAND® System Article)

Laparoscopic adjustable gastric banding (LAGB) is currently the most common bariatric surgical
procedure. The most frequent complications of LAGB surgery are pouch dilatation, gastric prolapse,
band erosion, stoma obstruction and access-port problems. We report a rare life-threatening case of
massive pericardial effusion as a complication of an infected Lap-Band. The management of this
condition included subxiphoid pericardial window, removal of the band and later conversion to
gastric bypass.

189. Burhop J., Chiang M., Engstrand D., O'Driscoll M.,
    Laparoscopic Bariatric Surgery Can be Performed Safely in the Community Hospital
    Setting,
    (LAP-BAND® System Article)

BACKGROUND: Bariatric surgery is being performed commonly in various practice settings. To
evaluate safety and efficacy, we reviewed the results of our first 516 laparoscopic bariatric operations
performed in a community hospital setting. METHODS: We reviewed retrospectively the results of
our first 516 consecutive laparoscopic bariatric procedures. RESULTS: Between December 2001 and
December 2004, we performed 516 bariatric surgical procedures. Ninety-nine percent of these were
accomplished laparoscopically. Thirty-day mortality in our series of 516 patients is 0%. Of these
patients, 431 had laparoscopic gastric bypass. The mean BMI in these patients was 51. Mean percent
excess weight loss in the laparoscopic gastric bypass patients was 70% at 1 year, 79% at 2 years and
84% at 3 years. Complications in the laparoscopic bypass group requiring reoperation included 11
bowel obstructions (2.5%), 5 episodes of bleeding (1.1%), and 2 laparoscopies for benign reasons.
There were 8 anastomotic leaks (1.9%)-7 requiring reoperation, 1 managed nonoperatively. Eighty-
five patients had adjustable gastric banding. Mean BMI was 45. Mean percent excess weight loss in
the adjustable gastric banding patients was 39% at 1 year and 57% at 2 years. Complications in the
adjustable gastric band patients requiring reoperation included 3 access port malfunctions (3.5%), 3
prolapsed bands (3.5%), 1 punctured band requiring replacement (1.2%) and 1 band causing
complete obstruction requiring removal (1.2%). CONCLUSION: Laparoscopic bariatric surgery can
be performed safely in the community hospital setting with a very low operative morbidity and
mortality. This requires an experienced team of bariatric surgeons leading a multidisciplinary team of
other health care professionals. Surgeon experience and super obesity can influence the risks.
Eating pattern in the first year following adjustable silicone gastric banding (ASGB) for
morbid obesity,
(LAP-BAND® System Article)

**OBJECTIVE:** To analyse the relationships between eating pattern, vomiting frequency, weight loss
and the rate of band related complications in morbidly obese patients undergoing Adjustable Silicone
Gastric Banding (ASGB). **SUBJECTS:** 80 morbidly obese patients (57 females and 23 males)
 consecutively operated by ASGB were evaluated both before and 3, 6 and 12 months after ASGB. Ten
 patients (12.5%) had binge eating disorder and were analysed separately. **MEASUREMENTS:** (1)
weight loss expressed as percentage of overweight, (2) total daily energy intake, (3) percentage of
energy as lipids, carbohydrates and proteins, (4) percent as liquid, soft or solid foods and (5)
vomiting frequency. **RESULTS:** ASGB induced a highly significant reduction of total daily energy
intake and percent as solid foods, without significant changes in macronutrient distribution. There
was an inverse relationship between vomiting frequency and the intake of solid foods. Non-binge
eaters with more vomiting ate less solid food and lost more weight than patients without vomiting.
The frequency of neostoma stenosis was higher in patients with high vomiting frequency than in
patients with no vomiting. Patients with binge eating disorder had a significantly higher vomiting
frequency and a five-fold higher frequency of neostoma stenosis than patients without binge eating
disorder. However, the percentage of overweight lost did not differ between patients with and
without binge eating. **CONCLUSIONS:** Vomiting is a major determinant of global outcome after
ASGB. The vomiting frequency in the first months after ASGB was associated with eating pattern, the
frequency of neostoma stenosis and possibly the rate of weight loss during the first year of follow-up.
The Influence of a New Timing Strategy of Band Adjustment on the Vomiting Frequency and the Food Consumption of Obese Women Operated with Laparoscopic Adjustable Silicone Gastric Banding (LAP-BAND®),


(LAP-BAND® System Article)

OBJECTIVE: To evaluate the effects of a new timing strategy of band adjustment on the short-term outcome of obese women operated with adjustable silicone gastric banding. SUBJECTS: The outcome of 30 women without binge-eating disorder operated with laparoscopic adjustable silicone gastric banding with a wider intraoperative band calibration (LAP-BAND) was compared to that of 30 body mass index-matched women without binge-eating disorder previously operated with adjustable silicone gastric banding (ASGB) applied by laparotomy with the usual intraoperative band calibration. The patients were evaluated 3, 6 and 12 months after surgery. MEASUREMENTS: (1) weight loss; (2) total daily energy intake; (3) percent as liquid, soft or solid food; (4) vomiting frequency; (5) rate of postoperative percutaneous band adjustments; (6) rate of band-related complications. RESULTS: Both the weight loss and the daily energy intake did not differ between patients with LAP-BAND and patients with ASGB. After surgery, the patients with LAP-BAND ate more solid food and less liquid food than the patients with ASGB. Vomiting frequency was higher in patients with ASGB than in patients with LAP-BAND. The total number of percutaneous band adjustments was higher in women with LAP-BAND than in women with ASGB. Band inflation because of weight stabilization was performed in six (20.0%) women with ASGB and in 19 (63.3%) women with LAP-BAND. Neostoma stenosis occurred in one woman with ASGB, but in none of the women with LAP-BAND. One patient with LAP-BAND presented band slippage. CONCLUSIONS: The wider intraoperative band calibration performed in patients with LAP-BAND did not reduce the short-term efficacy of adjustable silicone gastric banding. This new timing strategy of band adjustment required more postoperative percutaneous band inflations, but it improved the eating pattern of the patients (low vomiting frequency and high intake of solid food).
Visceral Fat Loss Evaluated by Total Body Magnetic Resonance Imaging in Obese Women Operated with Laparoscopic Adjustable Silicone Gastric Banding, *Int’l Journal of Obesity and Related Metabolic Disorders, 2000, 24, 1, 60-69.* (LAP-BAND® System Article)

**OBJECTIVE:** To investigate the changes of visceral fat, as compared with total and subcutaneous adipose tissue (AT) in obese patients operated with laparoscopic adjustable silicone gastric banding (LAP-BAND). **SUBJECTS:** Six premenopausal morbid obese (body mass index range: 41.4-44.2 kg/m²) women, aged 38-42 y, operated with LAP-BAND, evaluated before, 8 weeks after, and 24 weeks after surgery. **MEASUREMENTS:** Fat distribution was analysed by total body multi-slices MRI. Total AT, gluteo-femoral subcutaneous AT, abdominal subcutaneous AT, and abdominal visceral AT volumes were measured. FM was calculated from MRI-determined total AT volume and AT density. **RESULTS:** A weight loss of 9.9+/−3.8 kg was observed in the first 8 weeks after LAP-BAND (0-8 weeks), and a further weight loss of 7.1+/−4.9 kg in the subsequent 16 weeks (8-24 weeks). Total AT showed a statistically significant reduction of 6.2+/−4.0 l in 0-8 weeks and a further significant reduction of 7.7+/−3.9 l in 8-24 weeks (P<0.01 from baseline). A similar trend was observed for both abdominal and gluteo-femoral subcutaneous AT. Visceral AT showed a statistically significant reduction of 1.0+/−0.9 l in the 0-8 weeks (P<0.05) and a further non-significant reduction of 0.6+/−0.7 l in 8-24 weeks (P<0.05 from baseline). In 0-8 weeks, the relative reduction of visceral AT was higher than the relative reduction of both total AT and gluteo-femoral subcutaneous AT. A highly significant correlation was observed between the reduction of total AT and the reduction of both abdominal and gluteo-femoral subcutaneous AT. By contrast, in 0-8 weeks, the reduction of total AT and the reduction of visceral AT were not correlated. In a subsequent analysis, both observations collected in the first 8 weeks after LAP-BAND and observations collected in the last 16 weeks are simultaneously considered, leading to a total of 12 time periods (two time periods for each individual patient). In order to identify factors associated with preferential visceral fat reduction, we calculated for each of the 12 time periods the difference between the percentage changes of visceral AT and the percentage changes of total AT. The relationship between this difference and several other variables were investigated by simple correlation analysis. The only variables found to be associated were the initial visceral AT volume, the absolute level of weight loss (kg) per week of observation, and the relative level of weight loss (%) per week of observation. **CONCLUSION:** In the phase of rapid weight loss following LAP-BAND, a preferential mobilization of visceral fat, as compared with total and subcutaneous AT, can occur. However, this preferential visceral fat reduction occurs only in those patients presenting higher levels of visceral fat deposition at baseline and higher levels of weight loss.
Variation in Lipid Levels in Morbidly Obese Patients Operated with LAP-BAND® Adjustable Gastric Banding System: Effects of Different Levels of Weight Loss, 
(LAP-BAND® System Article)

BACKGROUND: A moderate weight loss is known to improve the lipid levels in simple obesity. The extent of weight loss needed to achieve a clinically meaningful effect on lipid abnormalities in morbid obesity is little understood. We analyzed the effects of different levels of body weight loss on the lipid levels of morbidly obese patients operated with the LAP-BAND System. METHODS: 225 morbidly obese patients (172 F and 53 M) in which a complete lipid profile has been collected both before and 12-18 months after surgery were studied. The changes of the lipid profile were analyzed according to different levels of percent weight loss (%WL: <10%, 10-20%, 20-30%, >30%). RESULTS: Mean weight loss was 30.7±15.2 kg, corresponding to a 23.1±9.7% reduction of body weight. A large variability in the weight loss was observed. A significant difference in the change of the lipid parameters between the group with <10%WL and the group with 10-20%WL was observed for total-cholesterol (+10.0±17.2% vs -0.7±14.7%; p<0.05), for the LDL (+18.7±26.3% vs +3.1±22.9%; p<0.05), and for the triglycerides (+7.7±26.3% vs -21.9±25.4%; p<0.05). No further significant differences were found between the two groups with greater weight loss (20-30%WL and >30%WL) and the group with 10-20%WL, the only exception being the percent change in triglycerides levels, i.e. higher in the group with %WL >30 (-33.6±31.5% vs -21.9±25.4%; p<0.05). CONCLUSION: A moderate weight loss of 10-20% of initial body weight produced the maximal effects on the lipid levels in morbid obesity.

Liver Volume and Visceral Fat in Obese Women Operated with the LAP-BAND® Adjustable Gastric Banding System, 
(LAP-BAND® System Congress Presentation Abstract)

General Outcome and Outcome Predictors in Obese Patients Operated with the LAP-BAND Adjustable Gastric Banding System (LAP-BAND®)
(LAP-BAND® System Congress Presentation Abstract)

196. Busetto L.,
Reply to Letter to the Editor by Pizzocri et al,
Changes in Lipid Levels with Percent of Weight Loss in Morbid Obesity,
(LAP-BAND® System – Other)
Liver Volume and Visceral Obesity in Women with Hepatic Steatosis Undergoing Gastric Banding,
(LAP-BAND® System Article)

OBJECTIVE: To investigate the relationships between visceral obesity and hepatic steatosis in obese patients undergoing adjustable silicone gastric banding with the LAP-BAND. RESEARCH METHODS AND PROCEDURES: Six premenopausal, morbidly obese women with an ultrasonographic diagnosis of liver steatosis were evaluated before surgery and 8 and 24 weeks after surgery. Liver volume and body fat distribution were simultaneously analyzed by total-body multislices magnetic resonance imaging. RESULTS: Before surgery, the only variable found to be correlated with liver volume was visceral adipose tissue volume ($r = 0.91; p < 0.01$). Weight loss was 9.9 +/- 3.8 kg in the period from 0 to 8 weeks ($p < 0.01$) and 7.1 +/- 4.9 kg in the the period from 8 to 24 weeks ($p < 0.05$). Total fat showed a statistically significant reduction of 6.2 +/- 4.0 liters in the 0- to 8-week period and a further significant reduction of 7.7 +/- 3.9 liters in the 8- to 24-week period. Visceral adipose tissue showed a statistically significant reduction of 1.0 +/- 0.9 liters in the 0- to 8-week period ($p < 0.05$) but only a further, not significant reduction of 0.6 +/- 0.7 liters in the 8- to 24-week period. The relative reduction of visceral fat in the 0-to 8-week period was higher than the relative reduction of total fat. Liver volume also showed a statistically significant reduction of 0.24 +/- 0.26 liters in the first phase of weight loss ($p < 0.05$), corresponding to a relative reduction of 12.3 +/- 10.6%. During the 8- to 24-week period, liver volume was substantially stable. DISCUSSION: Hepatomegaly was associated with visceral obesity in morbidly obese women with liver steatosis. In the phase of rapid weight loss after gastric surgery, a preferential mobilization of visceral fat, compared with total adipose tissue, occurred. This preferential visceral fat loss was associated with a significant reduction in liver volume.
BACKGROUND: The authors investigated the outcome predictors in obese patients who underwent laparoscopic adjustable banding with the Lap-Band. METHODS: The 3-year excess weight loss (EWL) and rate of band-related complications (pouch dilatation and port leakage) were analyzed in 260 morbidly obese patients, according to several possible predictive characteristics. Success rate (EWL > 50%), failure rate (EWL < 20%) and weight regain rate (regain of > 10% EWL between 1 and 3 yrs) were considered. RESULTS: The Lap-Band produced a 43.0 +/- 22.3% EWL, corresponding to a BMI reduction from 46.6 +/- 7.0 to 36.8 +/- 6.6 kg/m². Success rate was 35.7%, failure rate was 14.1% and weight regain rate was 20.7%. Pouch dilatation occurred in 32 patients (12.3%), band erosion in 2 (0.8%), port leakage in 74 (28.5%), and port twisting in 2 (0.8%). Major band-related surgery was requested in 11 patients (4.2%) and minor port-related surgery in 62 patients (23.9%). Significant success predictors were found to be age < 40 years and BMI < 50 kg/m². Significant failure predictors were found to be male sex and non-sweet eating behavior. Significant weight regain predictors were found to be BMI < 50 kg/m² and the occurrence of a port leakage. Port leakage was significantly more frequent in women and in patients with BMI < 50 kg/m². The prevalence of pouch dilatation was threefold higher in women than in men. CONCLUSIONS: Lap-Band was associated with a good outcome and with a low rate of severe complications. The outcome was more influenced by physiological and technical reasons than by psychological or behavioural factors.
Postoperative Management of Laparoscopic Gastric Banding,
(LAP-BAND® System Article)

BACKGROUND: The authors investigated the postoperative management of morbidly obese patients
treated by laparoscopic adjustable gastric banding (LAGB) with the Lap-Band System. METHODS:
The 3-year postoperative band management is presented in 379 morbidly obese patients, divided
according to intra-operative band filling and quartiles of maximum postoperative band filling.
RESULTS: LAGB resulted in a 40.8 +/- 24.5 percent excess weight loss (%EWL). Stoma stenosis
occurred in 87 patients (23.0%), pouch dilatation in 52 (13.7%) and esophageal dilatation in 22 (5.8%).
Most band-related complications were controlled by simple band deflation. The mean number of
postoperative band adjustments was 2.3 +/- 1.7, and mean maximum band filling after surgery was
2.8 +/- 1.2 ml. Weight loss at 3 years was identical in 205 patients who had the band completely
unfilled at surgery and in 174 patients who had the band filled with 1 to 3 ml of sterile saline. The rate
of band-related complications was significantly lower in the first group. No differences in %EWL
were observed between quartiles of maximum band filling after surgery. The rate of band-related
complications increased with increasing levels of postoperative maximum band filling. In patients
with the band filled with < 3.0 ml of sterile saline at 6 months, the inflation of further saline produced
a dose-related increase in the rate of weight loss. In patients with the band filled with > 3.0 ml of
sterile saline at 6 months, the inflation of further saline was associated with a reduced %EWL.
CONCLUSION: Postoperative adjustability of the Lap-Band was useful in the treatment of band-
related complications and was able to significantly influence the rate of weight loss. On the other
hand, aggressive postoperative band filling was associated with an increased rate of complications.

Effects of Different Levels of Weight Loss on Cardiovascular Risk Factors in Morbidly
Obese Patients Treated by LAP-BAND®
(LAP-BAND® System Congress Presentation Abstract)

**BACKGROUND:** The authors investigated the usefulness of preoperative treatment with the BIB intragastric balloon in super-obese patients before undergoing laparoscopic adjustable gastric banding (LAGB). METHODS: The case-control study involved 43 case patients treated with the intragastric balloon followed by LAGB (“Case” group) and 43 sex-, age- and BMI-matched historical controls treated with LAGB alone. RESULTS: Mean length of the intragastric balloon treatment was 164.4+/-39.7 days, with a fill volume of 609+/-95 ml. Total complication rate with balloon was 7.0% and percent excess weight loss (%EWL) was 26.1 +/- SD 9.3 %. At the time of gastric band placement, both operative time and hospital stay were shorter in patients treated previously with the balloon (Case group) than in the Control group patients. No Case patients required conversion to open surgery or had intraoperative complications. In the Control group, the rate of conversion was 16.3% (P<0.05) and the rate of intraoperative complications was 7.0%. Postoperative follow-up length was 1.1+/-1.0 years in Case patients and 4.4+/-1.8 years in Control patients (P<0.001). The %EWL produced by the intragastric balloon in the Case patients was identical to the %EWL observed in the first 6 months after LAGB in the Control group (26.1+/−9.3 vs 25.3+/−12.4%). %EWL 6 months after banding was higher in the Case patients than in Controls (33.6+/−12.5 vs 25.3+/−12.4%, P<0.01). However, no significant difference in %EWL between the two groups was observed at the subsequent postoperative evaluations. CONCLUSION: Preoperative treatment with the intragastric balloon reduced the risk of conversion to open surgery and the risk of intraoperative complications in super-obese patients treated with LAGB. Preoperative treatment with the intragastric balloon did not change the total weight loss after LAGB.
BACKGROUND: The authors investigated the outcome of morbidly obese patients with binge eating disorder (BED) treated surgically with laparoscopic adjustable gastric banding. METHODS: The 5-year outcomes of 130 patients with BED and 249 patients without BED are described. The diagnosis of BED was made preoperatively and all patients with BED were supported with psychological therapy. RESULTS: Patients with and without BED had similar BMI levels before surgery. More patients with than without BED had depressive symptoms and associated minor disturbances of eating behavior (night eating and grazing). Percent excess weight loss (%EWL) in the first 5 years after surgery was similar in patients with and without BED. The percentage of BED patients showing %EWL >50% at the 5-year evaluation was 23.1, and 25.7% in non-BED patients. The percentage of patients showing weight regain in the last 4 years of follow-up was similar in binge eaters (20.8%) and in non-binge eaters (22.5%). The 5-year frequency of gastric pouch and esophageal dilatation was significantly higher in binge eaters than in non-binge eaters (25.4 vs 17.7 %, P<0.05 and 10.0 vs 4.8%, P<0.05, respectively). Binge eaters underwent a higher number of postoperative band adjustments than non-binge eaters (3.0+/-2.1 vs 2.6+/-1.9, P<0.05) and the maximum band fill after surgery was higher in the BED patients than in non-BED patients (3.2+/-1.2 vs 2.8+/-1.3 ml, P<0.01).

CONCLUSION: Morbidly obese patients with BED supported by adequate psychological treatment can have good outcomes after gastric banding.
High Ghrelin Concentration is Not a Predictor of Less Weight Loss in Morbidly Obese
Women Treated with Laparoscopic Adjustable Gastric Banding,
*Obesity Surgery, 16*, 2006, 1068-1074
(LAP-BAND® System Article)

**BACKGROUND:** We analyzed the role of high plasma ghrelin concentrations at surgery as a negative
predictor of weight loss in morbidly obese patients treated with laparoscopic gastric banding (LAGB).
**METHODS:** Fasting plasma ghrelin concentrations were measured in 113 women before LAGB, and 16 of them were identified as having ghrelin concentrations clearly higher than expected according to the BMI levels. The 2-year postoperative outcome of these 16 patients was compared to the outcome of the remaining subjects. **RESULTS:** Mean fasting plasma ghrelin concentration in the group with hyperghrelinemia was 82.3+/−23.1 pg/ml and in women with normal ghrelin was 27.1+/−11.3 pg/ml (P<0.001). No differences in age, age at onset of obesity or degree of obesity were observed between the two groups. Women with hyperghrelinemia had a weight gain during the waiting time similar to women with normal ghrelin. The prevalence of comorbidities and eating behavior disturbances was similar in the two groups, but depression was 2.5 fold more prevalent in the hyperghrelinemic women than in the women with normal ghrelin. The %EWL after LAGB surgery was similar in women with high and normal ghrelin concentrations, with no differences in levels of postoperative band filling. No differences in band-related complications or revisional surgery rate were observed between the two groups. **CONCLUSION:** A high fasting ghrelin concentration at baseline did not significantly affect the outcome after LAGB in morbidly obese women, in terms of weight loss and complications rate.

204. Caballero M.A. Carbajo, Del Olmo J.C. Martin, Alvarez J.I. Blanco, De La Cuesta C., Polo J.A. Guerro, Sanchez R. Atienza,
Intragastric Migration of Laparoscopic Adjustable Gastric Band (LAP-BAND®) for
Morbid Obesity,
(LAP-BAND® System Article)

**No abstract available**

205. Cadière G.B., Favretti F., Bruyns J., Himpens J., Lise M.,
Gastroplastie par Coelio-Videoscopie: Technique,
(LAP-BAND® System Article)

**No abstract available**
Until now, for treatment of morbid obesity in the long term, surgery remained as the final option. For 40 years, surgeons looked at the best procedure. Among the restrictive procedures (gastroplasty), the laparoscopic adjustable silicone banding is the least invasive surgical treatment of morbid obesity. Between October 1992 and January 1998, we performed this procedure on 652 patients. Median body mass index was 45 (range, 35-65). Median hospital stay was 3 days (range, 2-10 days). The mean operative time was 80 minutes (range, 40-240 minutes). Four patients (0.6%) presented early complications: bleeding (1 patient), gastric perforation (2 patients), and pneumonia (1 patient). Forty-seven (7.2%) patients presented late complications and needed to be reoperated. There is one case of mortality. Loss of mass body weight was 62% in 2 years. According to these results, laparoscopic adjustable silicone gastric banding seems to be a safe and efficient technique.
209. Cadière G.B., Himpens J., Hainaux B., Gaudissart Q.,
Laparoscopic Adjustable Gastric Banding,
(LAP-BAND® System Article)

The introduction of laparoscopic adjustable silicone gastric banding (LASGB) has recently revolutionized gastric restrictive procedures in the treatment of morbid obesity. We analysed the short and long term results of this minimally invasive bariatric procedure. A total of 652 patients with a body mass of (median) 45 kg/m² were treated. There were only minor preoperative incidents. One patient died more than one month after the procedure. Early postoperative complications included 2 gastric perforations caused by a nasogastric tube and one early slipping of the band. Late complications occurred in 7% of the patients: 25 patients suffered a pouch dilation, 2 patients had gastric erosion by the band; 18 patients had port complications requiring reoperation. Loss of excess weight was 62% at 2 years. Laparoscopic adjustable gastric banding is a safe and effective treatment for morbid obesity. The most frequent complication is pouch dilation. Further study is warranted for the evaluation of long term results.

210. Calmes JM, Paroz A., Giusti V., Suter M.,
Gastric banding compared to long-limb roux-en-y gastric bypass for super-obesity: high device-related complication rate and global insufficient weight loss,
Obesity Surgery, 15, 2005, 951.
(LAP-BAND® System Abstract)
211. Camerini G., Adami G., Marinari G., Gianetta E., Pretolesi F., Papadia F., Marini P., Murelli F., Carlini F., Stabilini C., Sormani M., Scopinaro N.,
Thirteen Years of Follow-up in Patients with Adjustable Silicone Gastric Banding for
Obesity: Weight Loss and Constant Rate of Late Specific Complications,
(LAP-BAND® System Article)

BACKGROUND: Despite its simplicity, safety and good short-term results, progressive weight regain
and a high incidence of complications have been reported after the adjustable silicone gastric banding
(ASGB). The aim of this study is to evaluate the long-term results of this operation in our patient
population. METHODS: Between 1990 and 1996, 45 morbidly obese patients underwent insertion of
an ASGB. The trend of the patients' BMI over time was studied using a linear mixed effect model
adjusted for the preoperative BMI. So as to estimate the cumulative probability of band removal and
the cumulative hazard function, Lambda(t) Kaplan-Meier analysis was used. RESULTS: 1 year after
the operation, the average BMI was 79% of its preoperative value, which then increased linearly over
time. The slope of the regression line was estimated at beta =0.42, indicating an average increase of
0.42 BMI units per year. 27 bands (60%) were removed because of specific late complications. The
cumulative risk of band removal increased linearly with time. The hazard rate was estimated to be
lambda =0.008 events/patient/month, corresponding to 0.1 events/patient/year. CONCLUSIONS:
ASGB yielded good short-term results, but the progressive weight regain and constant risk of
complications in the long term tend to nullify the optimism.

212. Caniato D., Skorjanec B.,
The Role of Brief Strategic Therapy in the Outcome of LAP-BAND® Patients,
(LAP-BAND® System Congress Presentation Abstract)
213. Caniato D., Skorjanec B.,
   The Role of Brief Strategic Therapy on the Outcome of Gastric Banding,
   *Obesity Surgery, 12, 2002, 666-671.*
   (LAP-BAND® System Article)

BACKGROUND: The success of bariatric surgery can be measured in different ways and depends on many factors. The aim of this study was to assess if preoperative Brief Strategic Therapy (BST), a specific psychological support, can positively influence the results (weight loss, improvement in health status and quality of life, QOL) in the short- and long-term. METHODS: 500 patients who underwent laparoscopic adjustable gastric banding from 1996 to 1999 were evaluated both objectively (weight loss, health status) and subjectively (improvement in QOL and self-perception). We compared these results with those of a group of 145 patients treated with preoperative BST (6 sessions average). Patients were divided into 3 groups according to the percent of excess weight loss (< 40%, 40-60%, > 60%). The Moorehead-Ardelt QOL Questionnaire scoring was used. Individual interviews were conducted to understand emotional feelings and to evaluate the actual changes in the QOL and eating habits. RESULTS: Patients treated preoperatively with BST had 46% excess weight loss (EWL) at 1 year which was significantly different from patients non-treated (40% EWL). In the following years, treated patients showed better results, although not statistically significant. QOL improved objectively and subjectively CONCLUSION: Preoperative BST gives a satisfactory result. In addition, good compliance preoperatively corrected eating habits that has been maintained through the years and is a good predictor of long-term success.
214. Capizzi F., Boschi S., Brulatti M., Cuppini A., Di Dominico M., Fogli L., Papa V., Patrizi P.,
Laparoscopic Adjustable Esophagogastric Banding: Preliminary Results,
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic gastric banding is effective in surgical treatment of morbid obesity, but has had the drawback of specific complications, like slippage and gastric erosion. To prevent such complications, modifications have been used, including high retrogastric positioning above the bursa omentalis, complete anterior fixation by gastro-gastric stitches over the band, and reduction of the pouch volume to $< 15 \text{ ml}$. These technical variants may induce dysphagia. METHODS: We adopted a different technique, consisting of placement of the band (9.75 cm BioEnterics Lap-Band) around the esophagus just above the cardia, to induce an amplification of the dysphagic mechanism. No fixation stitches were used. RESULTS: From January 1999 to March 2001, 80 consecutive patients (16 males, 64 females, mean age 41 years, average BMI 45) were operated this way. All operations were completed laparoscopically. However, in 1 patient the procedure had to be interrupted for bleeding from a large fatty liver injury by the retractor. Complications included 2 cases of slippage: an early one after 24 h, requiring surgical removal, and a late one after 9 months, treated by laparoscopic repositioning. The third complication, a reactive esophageal stenosis, occurred in a transsexual male on estrogen treatment, that needed replacement with a wider Swedish band. Band adjustment was required in 28 patients, one time in 22 cases and twice in the other 6. Mean BMI decreased from 45 to 38 after 6 months, remaining at 37 after 24 months, while excess weight was reduced by 50% at 24 months. CONCLUSIONS: The technique has a re-educational function, in that patients are induced to chew thoroughly, to introduce small morsels of food and to prolong the mastication time, in order to avoid dysphagia. Laparoscopic adjustable esophagogastric banding gave no problem if well positioned, and promoted new alimentary habits through a dysphagic mechanisms, inducing significant excess weight loss.

215. Carim J., Naegele A., Rocha A., Peralva S., Moura J.,
LAP-BAND® in a Private Hospital: Results of 80 Patients in Three Years,
(LAP-BAND® System Congress Presentation Abstract)

216. Carim J., Naegele A., Rocha A., Peralva S., Moura J.,
Bleeding During the Laparoscopic Surgery with LAP-BAND®,
(LAP-BAND® System Congress Presentation Abstract)

217. Carim J., Chaves M., Oliveira A., Carim F.,
Laparoscopic adjustable gastric band – 358 patients,
*Obesity Surgery, 15*, 2005, 739.
(LAP-BAND® System Abstract)
218. Carim J., Oliveira A., Carim F., Peralva S.,
Removal of pre-gastroesophageal fat during placement of laparoscopic adjustable band,
(LAP-BAND® System Abstract)

219. Carim J., Miguel P., Carim F., Maegele A.,
Laparoscopic adjustable gastric band in 358 patients,
(LAP-BAND® System Abstract)

220. Carim J, Carim F, Oliveira A, Balbi J, Quintanilha C, Peralva S,
Analysis of Different Size of LAP-BAND in Gastric Slippage,
*Obesity Surgery*, 16, 2006, 995.
(LAP-BAND® System Abstract)

221. Carim J, Carim F, Oliveira A,
Surgical Treatment after Gastric Slippage in the LAP-BAND Procedure,
*Obesity Surgery*, 16, 2006, 1013.
(LAP-BAND® System Abstract)

222. Carlo A., Galvao M., Canseco E., Hiroshi A., Galvao M., Ramos A.,
Lap omenectomy and adjustable gastric band (AGB): technical issues,
*Obesity Surgery*, 15, 2005, 739.
(LAP-BAND® System Abstract)
223. Carrodeguas L, Kaidar-Person O, Szomstein S, Antozzi P, Rosenthal R,
Preoperative thiamine deficiency in obese population undergoing laparoscopic bariatric surgery,
Surgery for Obesity and Related Diseases, 1, 2005, 517-522; discussion 522.
(LAP-BAND® System Article)

BACKGROUND: Nutritional deficiencies are a recognized complication of bariatric surgery. Thiamine deficiency has been reported as a possible consequence of both restrictive and malabsorptive bariatric procedures. Most of the reported cases occurred after Roux-en-Y gastric bypass (RYGB) surgery; fewer were described after biliopancreatic diversion, vertical banded gastroplasty, or duodenal switch. Adults who have a high carbohydrate intake derived mainly from refined sugars and milled rice are at greater risk of developing thiamine deficiency, because thiamine is absent from fats, oils, and refined sugars. Currently, no reports have evaluated the preoperative thiamine status of bariatric patients. The aim of this study was to evaluate the degree of thiamine deficiency in obese patients before bariatric surgery at our institution. METHODS: The medical records of consecutive patients who underwent laparoscopic RYGB or laparoscopic adjustable gastric banding at our institution between March 2003 and February 2004 were retrospectively reviewed. Patients were selected for this study on the basis of predetermined criteria. Preoperative thiamine levels were retrospectively recorded. Excluded from this study were patients who had been taking multivitamins or other nutritional supplements before surgical intervention, had a history of frequent alcohol consumption, any malabsorptive diseases, or previous restrictive-malabsorptive surgical interventions, such as RYGB, biliopancreatic diversion, or adjustable gastric banding, according to the initial evaluation and questionnaire. RESULTS: Of 437 consecutive patients who underwent laparoscopic RYGB or laparoscopic adjustable gastric banding, 303 were included in the study. Forty-seven patients (15.5%) presented with low preoperative thiamine levels. The mean age and body mass index of these patients was 46 years and 60 kg/m(2), respectively. Male patients presented with greater mean preoperative thiamine levels (3.2 microg/dL) than female patients (2.4 microg/dL). CONCLUSION: Obese patients undergoing bariatric surgery may have significant thiamine deficiency before surgery.

224. Casalnuovo C., Ochoa E., Brites G., Saenz S., Braguinsky J.,
Experience with Nonadjustable and Adjustable Gastric Banding in Morbid and Super Obese Patients. First Argentine Bariatric Surgical Program,
(LAP-BAND® System Congress Presentation Abstract)

225. Casalnuovo C., Ochoa E., Brites G., Sol S.,
Laparoscopic Surgery in Morbid and Super Obese Patients. Adjustable Gastric Banding System,
Obesity Surgery, 9, 1999, 354.
(LAP-BAND® System Congress Presentation Abstract)
226. Casalnuovo C., de Eguileor E.O., Parrilla G., More M., Saenz S.,
Relaparoscopy in Two Types of LAP-BAND® Complications,
*Obesity Surgery*, 10, 2000, 335.
(LAP-BAND® System Congress Presentation Abstract)

227. Casalnuovo C., de Eguileor E. O., Parrilla G., More M.,
Technical Modification in LAP-BAND® Implant,
(LAP-BAND® System Congress Presentation Abstract)

228. Casalnuovo C., Ochoa E., Horacio R., María P.,
Evaluation of 150 Patients with Laparoscopic Adjustable Gastric Banding,
(LAP-BAND® System Congress Presentation Abstract)

229. Casalnuovo C., de Eguileor E. O., Parrilla G., Liljesthröm E.,
Bariatric Surgery Complications with Adjustable Laparoscopic Gastric System
(LAP-BAND®). Prevention and Treatment,
(LAP-BAND® System Congress Presentation Abstract)

230. Casalnuovo C., de Equileor E., Rozas H.,
Weight Loss after LAGB System (LAP-BAND®) – Pre-Operative Predictors,
(LAP-BAND® System Congress Presentation Abstract)

231. Casalnuovo C., de Equileor E., Refi H., Rozas C.,
Results after LAGB in Patients with BMI ≥60 (SuperSuperObese and Triple Obese Patients),
*Obesity Surgery*, 13, 2003, 547.
(LAP-BAND® System Congress Presentation Abstract)

232. Casalnuovo C., Refi C., Equeuil O, Horacio R., Maria P., Marco M.,
Is the LAGB Effective in Patients with BMI ≥ 60?
*ASBS Presentation*, 2004, 17.
(LAP-BAND® System Congress Presentation Abstract)

233. Casalnuovo C., Refi C., More M.,
Bariatric Surgery Complications with Laparoscopic Adjustable Gastric Banding (LAGB):
Prevention and Treatment,
(LAP-BAND® System Congress Presentation Abstract)


*No abstract available*


*No abstract available*


*No abstract available*
241. Castillo A., Ramirez-Wiella G., Alvarez Cordero R.,
   Initial Experience with Laparoscopic Adjustable Gastric Banding (LAGB)
   (LAP-BAND®) in Mexico: Report of 50 Cases,
   (LAP-BAND® System Congress Presentation Abstract)

242. Catheline JMC, Perez M., Cohen R., Reach G., Benichou J.,
   The cost of the placement of perigastric band in a French university hospital,
   (LAP-BAND® System Abstract)

243. Catona A.,
   Letter to the Editor,
   A Method for Treatment of Gastric Slippage after Adjustable Gastric Banding,
   (LAP-BAND® System - Other)

244. Catona A, Morone G, Ruggiero R, La Manna L, Sampiero C,
   Could a Mesh above the Band be the Solution to the Enlargement of Proximal Gastric
   Pouch? A Preliminary Series of Patients Treated with a Basket Band,
   *Obesity Surgery*, 16, 2006, 981.
   (LAP-BAND® System Abstract)

245. Cerny S, Chaloup F,
   Laparoscopic Non-Adjustable Gastric Banding vs. Laparoscopic Adjustable Gastric
   Banding in Patients with a Similar Degree of Obesity,
   *Obesity Surgery*, 16, 2006, 1003.
   (LAP-BAND® System Abstract)

246. Cha K-H, Fredericks D., Fielding G., Ren C.,
   Simultaneous hiatal hernia repair with laparoscopic adjustable gastric banding does not
   increase gastric prolapse: report of 100 consecutive cases,
   *Surgery for Obesity and Related Diseases* 1, 2005, 277.
   (LAP-BAND® System Abstract)

247. Chae F., McIntyre R.,
   Laparoscopic Bariatric Surgery,
   *Surgical Endoscopy*, 13, 1999, 547-549.
   (LAP-BAND® System Article)

   No abstract available
The Bariatric Surgery Explosion: A Discussion of Clinical and Professional Issues
(Editorial Roundtable),
(LAP-BAND® System Article)

No abstract available

249. Chapman W., MacDonald K.,
Early Experience with the Laparoscopic Adjustable Silicone Gastric Banding Procedure for Morbid Obesity,
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: We attempted to compare the safety and efficacy of laparoscopic adjustable gastric banding with vertical-banded gastroplasty and gastric bypass. Morbid obesity presents a serious health issue for Western countries, with a rising incidence and a strong association with increased mortality and serious comorbidities, such as diabetes, hyperlipidemia, and cardiovascular disease. Unfortunately, conservative treatment options have proven ineffective. Surgical interventions, such as vertical-banded gastroplasty (stomach stapling), Roux-en-Y gastric bypass, and, more recently, laparoscopic gastric banding have been developed with the aim of providing a laparoscopically placed device that is safe and effective in generating substantial weight loss.

METHODS: Electronic databases were systematically searched for references relating to obesity surgery by (1) laparoscopic adjustable gastric banding (LAGB), (2) vertical banded gastroplasty (VBG), and (3) Roux-en-Y gastric bypass (RYGB).

RESULTS: Only 6 studies reported comparative results for laparoscopic gastric banding and other surgical procedures. One study reported comparative results for all 3 surgical procedures, and this study was only of moderate quality. In total, 64 studies were found that reported results for LAGB and 57 studies reported results on the comparative procedures. LAGB was associated with a mean short-term mortality rate of approximately 0.05% and an overall median morbidity rate of approximately 11.3%, compared with 0.50% and 23.6% for RYGB, and 0.31% and 25.7% for VBG. Overall, all 3 procedures produced considerable weight loss in patients up to 4 years in the case of LAGB (the maximum follow-up available at the time of the review), and more than 10 years in the case of the comparator procedures.

CONCLUSIONS: The Australian Safety and Efficacy Register of New Intervventional Procedures-Surgical Review Group concluded that the evidence base was of average quality up to 4 years for LAGB. Laparoscopic gastric banding is safer than VBG and RYGB, in terms of short-term mortality rates. LAGB is effective, at least up to 4 years, as are the comparator procedures. Up to 2 years, LAGB results in less weight loss than RYGB; from 2 to 4 years there is no significant difference between LAGB and RYGB, but the quality of data is only moderate. The long-term efficacy of LAGB remains unproven, and evaluation by randomized controlled trials is recommended to define its merits relative to the comparator procedures.

Laparoscopic adjustable gastric banding in the treatment of obesity: A systematic
literature review,
SURGERY, Volume 135, Number 3, 2004, 326-351.
(LAP-BAND® System Article)

251. Chaston T, Dixon J, O’Brien P,
Systematic Review of the Loss of Fat-Free Mass after Weight Loss Following Bariatric
Surgery,
Obesity Surgery, 16, 2006, 990.
(LAP-BAND® System Abstract)
BACKGROUND: Weight loss is more variable after laparoscopic adjustable gastric banding (LAGB) than after gastric bypass. Subgroup analysis of patients may offer insight into this variability. The aim of our study was to identify preoperative factors that predict outcome. METHODS: Demographics, co-morbid conditions and follow-up weight were collected for our first 200 LapBand patients. Linear regression determined average %EWL. Logistic regression analysis identified factors that impacted %EWL. RESULT: 200 patients returned for 778 follow-up visits. Median age was 44 years (21-72) and median BMI 45 kg/m² (31-76). 140 (80%) were women. Average %EWL was \( y \% = 0.007 \% / \text{day} \times \text{days since surgery} + 0.12 \% \) (correlation coef. 0.4823; P<0.001). %EWL at 1 year was 37%. The best-fit logistic regression model found 7 factors that significantly changed the odds of achieving average %EWL. Older patients, diabetic patients and patients with COPD had greater odds of above average %EWL. Female patients, patients with larger BMIs, asthmatic patients and patients with hypertension had increased odds of below average %EWL. CONCLUSION: Specific patient characteristics and comorbid conditions significantly altered the odds of achieving satisfactory %EWL following gastric banding.

BACKGROUND: Kuzmak’s gastric silicone banding technique is the least invasive operation for morbid obesity. The purpose of this study was to analyze the complications of this approach.

METHODS: Between September 1992 and March 1996, 185 patients underwent laparoscopic gastroplasty by the adjustable silicone band technique. A minimally invasive procedure using five trocars was performed.

RESULTS: In 11 patients exposure of the hiatus was impeded because of hypertrophy of the left liver lobe which led to conversion in eight patients and abortion of the procedure in three other patients. Anatomical complications: We observed two gastric perforations and one band slippage at the early stage, one infection and three rotations of the access port.

Functional complications: There were eight (4%) cases of irreversible total food intolerance resulting in pouch dilation and eight cases (4%) of esophagitis. One fatality on the 45th day in a patient with a Prader-Willi syndrome.

CONCLUSION: The most disturbing complications of gastric banding technique are gastric perforation and pouch dilation. Their incidence may be reduced by improving the technique and by considering pitfalls of the procedure.

256. Cherrak A., Chevallier J.M., Zinzindohoué F., Blanche J.P., Cugnenc P.,
Combined Cholecystectomy with Laparoscopic Gastric Banding is Safe and Feasible,
(LAP-BAND® System Congress Presentation Abstract)

257. Chevallier J.M., Zinzindohoué F., Blanche J., Pardies P., Tourtier Y.,
Ehrhard M., Cugnenc P.,
150 LAP-BAND® Since 2 Years: Selection, Learning Curve, and First Results,
(LAP-BAND® System Congress Presentation Abstract)

258. Chevallier J.M., Zinzindohoué F., Blanche J.P., Cherrak A., Berta J.L., Altman J., Cugnenc P.H.,
Laparoscopic Gastric Banding in a Public University Hospital: Success and Pitfalls with 400 Patients in Four Years,
(LAP-BAND® System Congress Presentation Abstract)
259. Chevallier J.M., Zinzindohoué F., Blanche J. P., Douard R., Berta J.L., Altman J., Cugnenc P.H.,
LAP-BAND® Gastric Banding in a Public University Hospital: Success and Pitfalls with 450 Patients in Four Years,
(LAP-BAND® System Congress Presentation Abstract)

Adjustable Gastric Banding in a Public University Hospital: Prospective Analysis of 400 Patients,
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic application of an adjustable gastric band (LAGB) is considered the least invasive surgical option for morbid obesity. It has the advantage of being potentially reversible and can improve quality of life. METHOD: Between April 1997 and January 2001, 400 patients underwent LAGB. There were 352 women and 48 men with mean age 40.2 years (16-66). Preoperative mean body weight was 119 kg (85-195) and mean body mass index (BMI) was 43.8 kg/m2 (35.1-65.8).
RESULTS: Mean operative time was 116 minutes (30-380), and mean hospital stay was 4.55 days (3-42). There was no death. There were 12 conversions (3%). 40 complications required an abdominal reoperation (10%), for perforation (n = 2), gastric necrosis (n = 1), slippage (n = 31), incisional hernia (n = 2) and reconnection of the tube (n = 4). We noticed 7 pulmonary complications (2 ARDS, 5 atelectasis) and 30 minor problems related to the access port. At 2 years, mean BMI had fallen from 43.8 to 32.7 kg/m2 and mean excess weight loss (EWL) was 52.7% (12-94). CONCLUSION: LAGB is a very beneficial operation with an acceptable complication rate. EWL is 50% at 2 years if multidisciplinary follow-up remains assiduous. Surveillance for late anterior stomach slippage within the band is essential.

261. Chevallier J.M., Zinzindohoue F., Douard R., Cugnenc P.H.,
Laparoscopic Gastric Bandings: Function after Four Years: 80% Are Still Efficient. Who Failed?
(LAP-BAND® System Congress Presentation Abstract)
Complications after Laparoscopic Adjustable Gastric Banding for Morbid Obesity:
Experience with 1,000 Patients over 7 Years,
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) is considered the least invasive
surgical option for morbid obesity. It is less efficient than gastric bypass in weight loss, but has the
advantage of being potentially reversible and can improve the quality of life if mortality and
morbidity are low. METHODS: Between 1996 and 2003, 1,000 patients underwent LAGB. There were
896 women and 104 men with mean age 40.4 years (16.3-66.3). Preoperative mean BMI was 44.3
kg/m(2). RESULTS: There were no deaths. Cumulative rate of complications was 192 (19.2%). 12 were
life-threatening (1.2%): gastric perforation (n=4), acute respiratory distress (n=2), pulmonary
embolism (n=2), migration (n=3), and gastric necrosis (n=1). 111 patients required an abdominal
reoperation (11.1%) for perforation (n=2), slippage (n=78), migration (n=3), necrosis (n=1), esophageal
dilatation (n=2), incisional hernias (n=4) and port problems (n=21). Before October 2000, we used the
perigastric technique, and the slippage rate was 24% (91 / 378 ). Then, we changed to the pars flaccida
approach and the slippage rate fell to 2% (13 / 622). The pars flaccida approach demonstrated safety
in relation to both risks of perforation and slippage. CONCLUSION: The cumulative complication
rate increased to 3-4 years, and then decreased with experience and technical improvement. Concerns
of long-term follow-up should be migration and esophageal dilatation, which seem to be rare at 3
years.

263. Chevallier JM, Zinzindohoue F., Richard D., Altman JJ, Cugnenc PH,
A prospective analysis of 1000 laparoscopic gastric bandings since 7 years: 90% are still
efficient,
(LAP-BAND® System Abstract)

264. Chevallier JM, Zinzindohoue F., Douard R., Ferraz JM, Cugnenc PH,
Reoperation rte is decreasing with experience after laparoscopic gastric banding for
morbid obesity: 172 cases in 1,000 patients in 7 years,
*Obesity Surgery, 15, 2005, 935.*

265. (LAP-BAND® System Abstract)Chevallier JM, Zinzindohoue F, Douard R, Fernaz JM,
Ghanem Y, Chakthoura G, Dutranoy JC, Blanch JP, Cugnenc PM,
Complete Long-Term Follow-Up after LAP-BAND Placement
*Obesity Surgery, 16, 2006, 975.*
(LAP-BAND® System Abstract)
Laparoscopic removal of gastric band after early gastric erosion: case report and review of the literature,
(LAP-BAND® System Article)

Laparoscopic gastric banding is a popular method for treating morbid obesity. One of the most serious complications is band erosion into the gastric lumen. We present the case of a patient who underwent gastric banding and presented with symptoms of gastrointestinal reflux and mild-to-moderate hypertension, fever, and pain. UGI revealed stomach wall erosion and partial migration of the band into the gastric lumen. The band was laparoscopically removed without any further complications. Migration after laparoscopic gastric banding must be immediately addressed to prevent infection. Close monitoring of the band location during adjustments as well as a high index of suspicion is necessary.

Conversion of Adjustable Gastric Banding into Gastric Bypass: A Challenging Operation Done Laparoscopically,
Obesity Surgery, 12, 2002, 489.
(LAP-BAND® System Congress Presentation Abstract)

Laparoscopic Adjustable Gastric Banding Results after 2 Years with Two Different Band Types,
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic gastric banding is the most common operation in Europe for morbid obesity. Many devices from different companies are now available. The aim of this study was to compare the results over a 2-year period of 2 types of band: the Lap-Band and the Minimizer band. METHODS: In a non-randomized study, 2 consecutive groups were prospectively analyzed. Group A consisted of 120 patients who received the Lap-Band, and group B consisted of 68 patients who received the Minimizer band which contains eyelets. All the bands were placed above the lesser sac by the perigastric approach. RESULTS: 4 early complications were observed in group A (1 phlebitis, 1 pneumopathy and 2 early displacements of the band); and 1 in group B (1 retention of urine). After a follow-up of 2 years, the displacement rate of the band was 10.8% in group A and 0% in group B. One gastric erosion was observed in group B, but not in group A. After 2 years, the average loss of excess weight was 50% in both groups. CONCLUSION: With the Minimizer band, we did not observe any slipping, and the efficacy with respect to weight loss was equivalent to the Lap-Band.
Comparison of changes in lipid profile after bilio-intestinal bypass and gastric banding n patients with morbid obesity,
(LAP-BAND® System Article)

BACKGROUND: The presence of hypercholesterolemia is currently not considered a selection criteria for performing gastric restrictive or diversionary bariatric surgery. METHODS: We prospectively investigated the effects of the bilio-intestinal bypass (BI-bypass) with a wide cholecysto-jejunal anastomosis and of adjustable gastric banding (AGB) on blood lipid concentrations in obese patients. To clarify the mechanism of the hypocholesterolemic effect of the BI-bypass, daily fecal sterol excretion was measured by gas-liquid chromatography (GLC). RESULTS: At 1 year after BI-bypass compared to baseline, the hypercholesterolemic (n=18) and the normocholesterolemic (n=19) patients significantly reduced total (-38% and -27%, respectively), LDL (-47% and -24%, respectively) and HDL (-11% and -13%, respectively) cholesterol and total / HDL cholesterol ratio (-25% and -13%, respectively). At 1 year after AGB, the total / HDL cholesterol ratio was significantly decreased (-11%) compared to baseline in hypercholesterolemic (n=12) but not in normocholesterolemic (n=6) patients, while total and LDL cholesterol were not affected in both groups. At 3 years after BI-bypass compared to baseline, the hypercholesterolemic (n=9) and the normocholesterolemic (n=11) patients significantly reduced total (-43% and -28%, respectively) and LDL (-53% and -29%, respectively) cholesterol and total / HDL cholesterol ratio (-38% and -21%, respectively). The BI-bypass induced a significant (P <0.005; n=7) 6-fold increase in mean fecal cholesterol output. CONCLUSIONS: The BI-bypass but not the AGB leads to a persistent and marked beneficial effect on blood LDL cholesterol associated with an increased cholesterol fecal output. BI-bypass but not AGB is indicated in morbidly obese patients with hypercholesterolemia.

270. Corkarin N, Pilgrim C,
Laparoscopic Gastric Banding in the Public Hospital System
*Obesity Surgery, 16, 2006, 985.*
(LAP-BAND® System Abstract)
Background: Adjustable gastric banding (AGB) is a minimally-invasive approach which allows adjustment of gastric restriction. Methods: The AGB was evaluated retrospectively in a consecutive series at 3 centers. From October 1998 to October 2001, 70 patients (49 women), mean age 34.3 years (18-59) with morbid obesity (preoperative mean BMI 45.2 kg/m(2)) underwent AGB. The open approach was employed in the first 35 patients. Laparoscopic placement was used in the second 35 patients. Complete follow-up has been obtained in all patients. Results: Mean postoperative follow-up has been 18 months (12-39). Mean operative time was 120 minutes in the open approach and 150 minutes in the laparoscopic AGB. Mean hospital stay was 5 days after the open approach and 1.7 days after the laparoscopic surgery. The excess weight loss after 18 months was 59%. Incidence of early postoperative complications was 27.1%, including nausea and vomiting in 8 patients (5 in open approach, 3 in laparoscopic placement), wound infection in 10 patients (all 10 in open approach), and Wernicke’s encephalopathy in 1 patient (open approach). Incidence of late complications was 28.5%, and included band migration in 2 patients (both by laparoscopic placement), pouch dilatation in 10 patients (6 in open approach, 4 in laparoscopic placement), incisional hernias in 4 patients (all by open approach), and port infections in 4 patients (all 4 in open approach). Conclusion: AGB has been effective in achieving good weight loss to 3 years follow-up. The ability to adjust the degree of gastric restriction has enabled progressive weight loss.


No abstract available

BACKGROUND: Open or laparoscopic Roux-en-Y gastric bypass (RYGBP) is the most common operation for treatment of morbid obesity in USA. The laparoscopic adjustable gastric band (LAGB) has been the most common bariatric operation performed worldwide. The LapBand was approved for use in USA in July 2001. Since then, several US surgeons have adopted one procedure preferentially over the other, and several have reported patient outcomes. We added the option of the LAGB to the RYGBP in our practice in July 2001. We hypothesized that both procedures will provide similar weight loss and co-morbidity reduction if followed for a sufficient length of time. To enhance weight loss, we adopted a patient behavioral program that is easy to remember, in an attempt to ensure a reduction in caloric intake and reduce hunger regardless of the operation performed.

METHODS: A case-controlled matched-pair cohort study was conducted. All patients who presented to the Surgical Weight Control Center of Las Vegas between Aug 2001 and Aug 2004 for LAGB were placed into one group, and a matched-pair RYGBP cohort group was created. Patients in the RYGBP cohort were matched for age, sex, date of surgery, and BMI. All patients were evaluated on an intention to treat basis. Data were collected prospectively and analyzed retrospectively. All patients were subjected to the same preoperative education regarding calorie reduction behaviors and diet change, and received the same postoperative counseling regarding long-term eating behavior and food choices. RESULTS: During this period, 208 patients underwent LAGB and 600 underwent RYGBP. Of the 208 LAGB patients, 181 had suitable open or laparoscopic RYGBP matches. The two groups were similar in terms of age, sex, BMI, and co-morbidities. There were no deaths in either group. Resolution of co-morbidities statistically favored RYGBP as did the weight loss, over the study period. CONCLUSION: When patients are matched with 3-year follow-up according to time of surgery, age, sex and BMI, LRYGBP provides superior weight and co-morbidity reduction and can be done without severe complications. However, the LAGB is an effective weight loss tool and not every patient wishes to have the LRYGBP.

275. Dandrifosse AC,
Laparoscopic adjustable gastric banding: 11-year retrospective study,
(LAP-BAND® System Abstract)

276. Dapri G, Himpens J, Cadire GB,
A Prospective Trial between Laparoscopic Gastric Banding and Laparoscopic Gastric Sleeve: Results after 1 and 3 Years,
*Obesity Surgery*, 16, 2006, 975.
(LAP-BAND® System Abstract)
277. Dapri G, Rqibate O, Himpens J, Cadiere GB, Laparoscopic Gastric Bypass versus Gastric Bypass after Gastric Banding: Results of a Retrospective Study, *Obesity Surgery, 16, 2006, 1012.* (LAP-BAND® System Abstract)


**No abstract available**


284. Dargent J.,
Laparoscopic Adjustable Gastric Banding: Lessons from the First 500 Patients in A Single Institution,
Obesity Surgery, 9, 1999, 446-452.
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) has been adopted by many bariatric surgeons. It remains under scrutiny, although it represents a major innovation in the treatment of morbid obesity. We present the lessons from the first 500 patients treated in our institution. METHODS: From April 1995 to November 1998, 500 patients (421 females, 79 males) underwent an LAGB in our institution: 432 were morbidly obese and 68 were superobese. Mean body mass index (BMI) was 43, and mean excess weight was 51 kg. RESULTS: There have been no deaths. There was one case of gastric perforation reoperated on and three cases of pulmonary and/or abdominal collections treated by drains. Two rings were changed for leakage. One ring was removed for a postoperative sigmoiditis. Three late gastric erosions occurred, requiring removal of the ring. Five access- ports have been removed for infection. 25 cases (5%) of pouch dilatation have been observed of which 18 (3.6%) led to reoperation. Mean follow-up was 21 months. Mean excess weight loss was 56% at 1 year, 65% at 2 years, and 64% at 3 years. CONCLUSION: This favorable outcome led us to propose laparoscopic banding to all our patients instead of stapling gastroplasty. Short-term data should be confirmed by a longer follow-up, but indicate that LAGB should provide good results in terms of weight loss and that there are a limited number of failures. We believe that it should not be regarded just as a first-step procedure but as a final therapy, even for superobese patients.

285. Dargent J.,
A 4-Year Experience of Conversions of Failed Vertical Ring Gastroplasty into Adjustable Banding,
Obesity Surgery, 10, 2000, 335.
(LAP-BAND® System Congress Presentation Abstract)

286. Dargent J.,
Pouch Dilatation and Slippage after Adjustable Gastric Banding: Is It Still an Issue? (A Six Years Experience),
Obesity Surgery, 12, 2002, 199.
(LAP-BAND® System Congress Presentation Abstract)

287. Dargent J.,
Super Obese Treated by Adjustable Gastric Banding: Is it Worthwhile? A 7 Year Experience,
Obesity Surgery, 12, 2002, 475.
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) in France is currently the most common bariatric surgical procedure for the treatment of severe obesity; its most reported complication is band slippage and/or pouch dilatation, which usually requires reoperation. It is highly important to assess whether a change in the operation could improve these results.

METHODS: From April 1995 to October 2001, 973 patients underwent LAGB in our institution. Since January 1999, our technique changed: the band was positioned according to the so-called "pars flaccida technique", i.e. around the gastric vessel instead of close to the gastric wall. 511 patients had been operated before this period, and 462 after. Other details in the technique did not change (dissection above the lesser sac, no posterior stitch, three anterior stitches), meaning that potential differences could not be related to a learning curve. RESULTS: Band slippage occurred in 27 patients of the first group during the first period of 34 months (5.2%), and 5 more afterwards (total 6.2%). Only 3 patients of the second group (0.6%) had a slippage during the same period of time.

CONCLUSION: Although the problem of band slippage is not likely to be completely solved, changing the technique has made it possible to decrease the rate of this complication. The height or the shape of different types of band also remain under scrutiny.
289. Dargent J.,
Surgical Treatment of Morbid Obesity by Adjustable Gastric Band: the Case for a Conservative Strategy in the Case of Failure – a 9-Year Series, 
*Obesity Surgery, 14, 2004, 986-990.*
(LAP-BAND® System Article)

BACKGROUND: Lapaparoscopic adjustable gastric banding (LAGB) has become a widespread method to treat morbid obesity. Long-term complications and failures require a strategy for reoperation. METHODS: 1,180 patients have been operated on from April 1995 to December 2003. 151 had reoperation for complications (12.7%) excluding access-port problems: slippage (105), erosion (22), intolerance (24). 67 patients (5.6%) had their band removed; only 5 had a switch to another procedure. Esophageal dilatation and insufficient excess weight loss (<25%) after 5 years (13.7%) should also be addressed. Two situations are described: 1) Band in place: anterior slip, dilatation, isolated insufficient weight loss. 2) Band to be removed: posterior slip, severe anterior slip (acute, with necrosis or perforation), erosion, intolerance. Four options are recognized: 1) Conservation (adjustment management) or surgical correction (anterior slip). 2) Placement of a new band: for failure of the device, accidental removal (slippage in difficult conditions), and erosion after a delay. 3) RYGBP or BPD in selected cases only. 4) Other procedures. CONCLUSION: 1) A new band can be placed if there has been a technical problem. 2) Weight control is possible, including in the case of esophageal dilatation. Reoperation for insufficient weight loss without a technical problem is not an option. Failures of VBG cannot be fairly compared with Lap-Band (R) failures because of adjustability. 3) Reoperation is not often demanded. For failure after LAGB, the future should involve less invasive bariatric procedures and nonsurgical approaches.

290. Dargent J.,
Failures of LAP-BANDing: The Case for a Conservative Strategy,
(LAP-BAND® System Congress Presentation Abstract)
291. Dargent J.,
Esophageal Dilatation after Laparoscopic Adjustable Gastric Banding: Definition and Strategy,
Obesity Surgery, 15, 2005, 843-848.
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) has become a method of choice worldwide to treat morbid obesity. Long-term complications such as esophageal dilatation require that a relevant strategy for treatment be defined. Esophageal dysmotility is commonly described in morbidly obese patients. METHODS: 1,232 patients have undergone LAGB over 9 years (1995-2004), and 162 (13.1%) have had a reoperation for complications (excluding access-port problems): slippage (109), erosion (28), intolerance (25). 80 patients (6.4%) had their band removed, and 10 had a switch to another procedure. Esophageal dilatation has been an isolated cause for removal in 2 patients and an associated cause in 6 patients. RESULTS: There was no significant correlation between esophageal dilatation and insufficient excess weight loss (<25%) after 5 years (37/257:14.3%). 4 stages of dilatation were identified, with the relevant treatment for each, the ultimate alternative being conversion to a laparoscopic gastric bypass. We suggest that esophageal dilatation be a separate issue from pouch dilatation and gastric erosion, and that it be classified as a complication only in severe cases requiring band removal. Most cases can be handled through deflation of the band under radiological control. CONCLUSION: LAGB can lead to significant esophageal troubles which must remain under scrutiny but generally respond to "radiological management", which also makes LAGB more demanding than other operations in terms of follow-up.

292. Dargent J.,
Triple obese patients (BMI >60) and LAP-BANDing: Why Not?
Obesity Surgery, 15, 2005, 950.
(LAP-BAND® System Abstract)

293. Daud A., Inabnet W., Digiorgi M., Olilvero-Rivera L., Schrope B., Davis D., Bessler M.,
Effect of bariatric surgery in elderly patients,
Surgery for Obesity and Related Diseases 1, 2005, 256.
(LAP-BAND® System Abstract)
BACKGROUND: Morbid obesity (MO) causes several degrees of respiratory impairment that may resolve after weight reduction. The aims of the present study were to investigate the frequency of respiratory impairment in a selected cohort of morbidly obese patients with BMI 40-50 kg/m² with no respiratory symptoms and to evaluate the impact of surgically-induced weight loss on respiratory function. METHODS: Prospective analysis of respiratory impairment was conducted before surgery and 1 year after surgery in a cohort of patients with MO who underwent vertical banded gastroplasty (VBG). 30 consecutive patients with MO who underwent VBG (14 open and 16 laparoscopic) in a 1-year period were studied. Respiratory function tests, arterial blood gases and hemoglobin were obtained in all patients before and 1 year after VBG. RESULTS: Results were analyzed using the Wilcoxon signed-rank test and Spearman for variables without normal distribution. Mean age was 35±8 years; there were 3 males and 27 females. BMI was 44±4 kg/m² before surgery and 32±4 kg/m² at 1-year follow-up. By respiratory function tests, the diagnosis of obstructive disease was made before surgery in 4 patients and a restrictive disorder was identified in 4 additional patients. Evidence of pulmonary disease was absent in all patients 1 year after surgery. Forced vital capacity, inspiratory and expiratory forces, tidal volume, SaO₂, and PaCO₂ significantly improved after weight reduction. CONCLUSION: Surgically-induced weight loss significantly improves pulmonary function.

295. Davtyan C., Davtyan D.,
Treatment of Obesity in the Female Patient, the Role of Laparoscopic Adjustable Gastric Banding,
(LAP-BAND® System Article)

No abstract available

296. De Arruda P., Ferraz A., Bacelar T., de Albuquerque C., Ferraz E.,
Laparoscopic Adjustable Gastric Banding: Preliminary Results in Northeast Brazil,
Obesity Surgery, 12, 2002, 522.
(LAP-BAND® System Congress Presentation Abstract)

297. De Blanc, C., Finigan K., Taylor K., Robinson A., Martin L.,
Three Case Studies of Patients, Who Required Conversion from Adjustable Gastric Banding to Gastric Bypass to Lose Weight,
(LAP-BAND® System Congress Presentation Abstract)
298. De Csepel, J., Quinn T., Pomp A., Gagner M.,
Conversion to a Laparoscopic Biliopancreatic Diversion with a Duodenal Switch for
Failed Laparoscopic Adjustable Silicone Gastric Banding,
(LAP-BAND® System Article)

BACKGROUND: Initial data indicate that long-term weight loss for patients who have undergone
laparoscopic adjustable silicone gastric banding (LASGB) may be inadequate. It is anticipated that
many of these patients will require revision in the next few years. The procedure of choice for such a
revision is unknown. PATIENTS AND METHODS: Two LASGB patients, who underwent a
laparoscopic gastric band removal with a conversion to a biliopancreatic diversion with a duodenal
switch (BPD/DS), are presented. RESULTS: Their procedures were completed without intraoperative
complications. Significant weight loss over 12 and 13 months was achieved. CONCLUSION: The
BPD/DS, as opposed to the Roux-en-Y gastric bypass (RGB), is well suited for LASGB revision, as its
proximal anastomosis is at the duodenum, away from the gastric band scar tissue. Our experience
performing laparoscopic BPD/DS has yielded satisfactory weight loss results without the need for
revision.

299. Deitel M.,
Editorial,
How Much Weight Loss is Sufficient to Overcome Major Co-Morbidities?
(LAP-BAND® System - Other)

300. Deitel M.,
Letter to the Editor,
Editorial on Laparoscopic Adjustable Gastric Banding One-Sided,
(LAP-BAND® System - Other)
Morbid obesity is defined as obesity with a body mass index $\geq 40$, or $\geq 35$ with secondary serious diseases. Conservative medical therapies in these individuals generally fail to sustain weight loss. Thus, surgical operations have evolved which are based on gastric restriction and/or malabsorption. Historically, the intestinal bypass operation was followed by the gastric bypass operation (in some instances combined with intestinal bypass) or by the gastric restriction operations (gastroplasty or gastric banding). Laparoscopic techniques are now being used for these operations, but require surgical expertise in both the bariatric operations and advanced laparoscopic skills. All operations may have complications, but these occur in a very small percent. Postoperative follow-up and nutritional surveillance are mandatory. The operations result in significant weight loss, and the current operations have a mean lasting weight loss of about 50 percent of excess body weight, with improvement or resolution of most obesity-associated conditions. There is evidence that even modest to moderate weight loss in these individuals has significant medical benefit.
306. de Jong J., Tiethof C., Timmer R., Smout A., van Ramshorst B.,
Esophageal Dilation After Laparoscopic Adjustable Gastric Banding: Myth or Reality?
*Obesity Surgery, 11, 2001, 388.*
(LAP-BAND® System Congress Presentation Abstract)

307. de Jong J., van Ramshorst B., Timmer R., Gooszen H., Smout A.,
The Influence of Laparoscopic Adjustable Gastric Banding on Gastroesophageal Reflux,
*Obesity Surgery, 14, 2004, 399-406.*
(LAP-BAND® System Article)

**BACKGROUND:** Laparoscopic adjustable gastric banding (LAGB) influences gastroesophageal reflux. **METHODS:** 26 patients undergoing gastric banding were assessed by a questionnaire for symptom analysis, 24-hour pH monitoring, endoscopy and barium swallows, preoperatively, at 6 weeks and at 6 months after operation. **RESULTS:** Gastric banding had minimal effect on heartburn scores, but regurgitation and belching scores increased significantly during follow-up. Use of acid-reducing drugs decreased significantly at 6 weeks and increased significantly at 6 months. Pathological reflux was present in 13 of the 26 patients preoperatively. At 6 months pathological reflux was found in only 6 of these 13 patients, but 4 of the 13 patients with preoperative normal reflux patterns had developed pathological reflux. 6 months after the operation esophagitis had disappeared in 6 patients and was increased in 9 patients. In 9 patients, a pouch was found at 6 months. Pouch formation was significantly correlated with the presence of pathological reflux, esophagitis and the use of acid-reducing medication. Preoperative presence of a hiatal hernia did not influence pouch formation or pathological reflux. **CONCLUSION:** LAGB decreases gastroesophageal reflux if there is no pouch formation during follow-up.

308. de Jong JR, van Ramshorst B., Timmer R., Gooszen HG, Smout AJMP,
Effects of laparoscopic adjustable gastric banding on esophageal motility,
*Obesity Surgery, 15, 2005, 934.*
(LAP-BAND® System Abstract)

309. de Jong JR, van Ramshorst B., Gooszen HG, Smout jAJMP, Tiel-Van Buul, MMC,
Weight loss after laparoscopic adjustable gastric banding is not caused by altered gastric emptying,
*Obesity Surgery, 15, 2005, 935.*
(LAP-BAND® System Abstract)
BACKGROUND: Alterations in esophageal motility may occur after placement of an adjustable gastric band as treatment for morbid obesity, near the gastro-esophageal junction. It causes an outlet obstruction, especially during follow-up after the band is filled. METHODS: 29 morbidly obese patients underwent conventional manometry preoperatively, 6 weeks postoperatively before and after filling the band and at 6 months postoperatively. A questionnaire was used to assess upper gastrointestinal symptoms during follow-up. RESULTS: After band placement, there was a significant increase in lower esophageal sphincter (LES) end-expiratory pressure at 6 weeks with an empty band: 1.3 (0.9-1.9) kPa (median (interquartile range) (P=0.003), 6 weeks with a filled band: 2.1 (1.5-2.8) kPa (P=0.0001), and at 6 months: 1.5 (1.3-1.9) kPa (P=0.001), compared to the preoperative pressure: 0.8 (0.6-1.3) kPa. Also after band placement, the high pressure zone length increased (preop 5.0 (4.3-6.0) cm vs 6 weeks 6.0 (5.0-6.5) cm (P=0.003). The propagation of peristaltic contractions was not significantly altered after band placement. Heartburn decreased 6 weeks postoperatively (P=0.04) but increased at 6 months. Heartburn at 6 months was correlated with pouch formation (0.667; P<0.01). CONCLUSION: Adjustable gastric band placement causes an increase in LES pressure and length of the high pressure zone. It decreases reflux symptoms in the short-term, but this effect appears not to be related to an effect on LES pressure or length. Pouch formation increases reflux symptoms without having any relationship to LES pressure and length. Band placement in the short-term does not disturb propagation of esophageal contractions.

(LAP-BAND® System Congress Presentation Abstract)
312. de Jonge I. C.D.Y.M., Gie Tan K., Oostenbroek R.,
Adjustable Silicone Gastric Banding: A Series with Three Cases of Band Erosion,
*Obesity Surgery*, 10, 2000, 26-32.
(LAP-BAND® System Article)

BACKGROUND: Among the various operations used for surgical treatment of morbid obesity, adjustable silicone gastric banding (ASGB) is the least invasive. Many good results have been described. During extended follow-up, however, serious complications may occur. We briefly describe our results with ASGB and will focus on three cases of band erosion. METHODS: From January 1996 to December 1998, 91 patients underwent laparoscopic adjustable gastric banding in our clinic. Follow-up until now is 100%. RESULTS: Body Mass Index (BMI) in this series decreased from 44.7 at time of operation to 34.8 at 18 months of follow-up (42 patients). Complications, minor and major, occurred in 27.5%. Three patients are described in which the gastric band migrated and had to be removed operatively. CONCLUSIONS: Satisfactory weight loss can be established by ASGB. However, serious and potentially lethal complications can occur. In view of the former Angelchik esophageal antireflux prosthesis, abandoned because of its notorious migration, we must be aggressive in evaluating band migration. Thus, we plead for international registration of adjustable silicone gastric banding.

313. De La Garza J., De La Garza R., Trecino H.,
Laparoscopic Conversion in Obesity Surgery: From Vertical Banded Gastroplasty to Adjustable Gastric Band. One Case Report,
(LAP-BAND® System Congress Presentation Abstract)

314. De La Garza J., Vazquez J., Saucedo P.,
Laparoscopic Replacement in Gastric Banding: LAP-BAND® to Swedish Band: One Case Report,
(LAP-BAND® System Congress Presentation Abstract)

315. De La Garza J., Leal B., Saucedo P.,
Laparoscopic Gastric Banding: First 243 Cases, Results and Complications,
(LAP-BAND® System Congress Presentation Abstract)

316. Del Castillo D, Blanco S, Hernandez M, Perez JS, Domenech J, Buils F,
Duodenal Switch by Laparoscopy for Patients with Failed LAP-BAND Surgery: Two-Step Procedure,
*Obesity Surgery*, 16, 2006, 993.
(LAP-BAND® System Abstract)
317. De Laere S., Pattyn P., Pevernagie D., Hesse U., de Hemptinne B.,
The Value of Laparoscopic Gastric Banding in the Treatment of Obesity-Related
Obstructive Sleep Apnea Syndrome,
(LAP-BAND® System Congress Presentation Abstract)

A US Institutional Experience with 300 LAP-BANDs for the Treatment of Morbid Obesity
in a Laparoscopic Center,
(LAP-BAND® System Congress Presentation Abstract)

319. Delin C., Anderson P.,
A Preliminary Comparison of the Psychological Impact of Laparoscopic Gastric Banding
and Gastric Bypass Surgery for Morbid Obesity,
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic gastric banding has introduced a new element into weight reduction
surgery. The authors compared subjects who had undergone a laparoscopic gastric banding (lap-
band) procedure with those who had undergone a gastric bypass operation on relevant psychological
and behavioral parameters. METHODS: A self-report questionnaire developed by the researchers
was used. It included questions about aspects of food and eating as well as attitudinal items relating
to the outcome of the surgery. RESULTS: There were significant differences between the lap-band
group and the gastric bypass group in their distance from their desired weight, their eating, and their
attitudes. CONCLUSION: 9 months after surgery, gastric bypass surgery appears to be the superior
procedure on several parameters. The surgery induction process may be critical. Evaluation at later
stages is vital.

320. De Luca M., de Werra C., Loffredo A., Marra P., Amalfitano F., Genovese E., Forestieri P.,
Relationship between Weight Loss Induced by LASGB and Cholelithiasis,
(LAP-BAND® System Congress Presentation Abstract)

**BACKGROUND:** Adjustable banding is safe, low invasive, and effective for losing weight. **METHODS:** 69 patients underwent this procedure by laparotomy or laparoscopy. **RESULTS:** Patients operated by laparotomy lost more weight than those operated by laparoscopy, but in 4 patients we were forced to re-operate in order to remove the band (3 pouch dilatations and 1 stomach slippage), and in 9 patients a ventral hernia appeared (5 patients repaired). In the laparoscopic cases there were 4 intra-operative gastric perforations, but all were repaired and the band placed at the same time (3 conversions to open), causing an increased post-operative hospital stay. There was a lower limb deep venous thromboembolism, which was followed by fatal pulmonary embolism (although the patient had been given heparin and had been treated with elastocompression and mobilization 2 hours after surgery). The band eroded in one patient. Weight losses in these morbidly obese patients were satisfactory at 2 years and maintained beyond 3 years. **CONCLUSION:** Laparoscopic adjustable banding is an efficient, generally safe procedure.


323. De Maria E., Laparoscopic Placement of an Adjustable Gastric Band, Syllabus presented at the Laparoscopic Bariatric Surgery Workshop, 10/9-10/10/98, Pittsburgh, Pennsylvania. (LAP-BAND® System Congress Presentation Abstract – Presentation Text)


325. De Maria E., Kothari S., Meador J., Sugerman H., Laparoscopic Conversion of LAP-BAND® to Gastric Bypass, Obesity Surgery, 11, 2001, 167. (LAP-BAND® System Congress Presentation Abstract)
OBJECTIVE: To report the results from one of the eight original U.S. centers performing laparoscopic adjustable silicone gastric banding (LASGB), a new minimally invasive surgical technique for treatment of morbid obesity. SUMMARY BACKGROUND DATA: Laparoscopic adjustable silicone gastric banding is under evaluation by the Food & Drug Administration in the United States in an initial cohort of 300 patients. METHODS: Of 37 patients undergoing laparoscopic placement of the LASGB device, successful placement occurred in 36 from March 1996 to May 1998. Patients have been followed up for up to 4 years. RESULTS: Five patients (14%) have been lost to follow-up for more than 2 years but at last available follow-up (3-18 months after surgery) had achieved only 18% (range 5-38%) excess weight loss. African American patients had poor weight loss after LASGB compared with whites. The LASGB devices were removed in 15 (41%) patients 10 days to 42 months after surgery. Four patients underwent simple removal; 11 were converted to gastric bypass. The most common reason for removal was inadequate weight loss in the presence of a functioning band. The primary reasons for removal in others were infection, leakage from the inflatable silicone ring causing inadequate weight loss, or band slippage. The patients with band slippage had concomitant poor weight loss. Bands were removed in two others as a result of symptoms related to esophageal dilatation. In 18 of 25 patients (71%) who underwent preoperative and long-term postoperative contrast evaluation, a significantly increased esophageal diameter developed; of these, 13 (72%) had prominent dysphagia, vomiting, or reflux symptoms. Of the remaining 21 patients with bands, 8 currently desire removal and conversion to GBP for inadequate weight loss. Six of the remaining patients have persistent morbid obesity at least 2 years after surgery but refuse to undergo further surgery or claim to be satisfied with the results. Overall, only four patients achieved a body-mass index of less than 35 and/or at least a 50% reduction in excess weight. Thus, the overall need for band removal and conversion to GBP in this series will ultimately exceed 50%. CONCLUSIONS: The authors did not find LASGB to be an effective procedure for the surgical treatment of morbid obesity. Complications after LASGB include esophageal dilatation, band leakage, infection, erosion, and slippage. Inadequate weight loss is common, particularly in African American patients. More study is required to determine the long-term efficacy of the LASGB.
327. De Maria E.,
   Laparoscopic Adjustable Silicone Gastric Banding,
   (LAP-BAND® System Article)

Laparoscopic adjustable silicone gastric banding (LASGB) is a relatively new surgical procedure for
the treatment of morbid obesity. The most popular banding procedure is the vertical banded
gastroplasty, however, there are risks involved in this procedure, including staple-line disruption and
postoperative intractable vomiting. This article presents the advantages of using the LASGB device
over former types of gastric banding.

328. De Maria E.
   Laparoscopic Adjustable Silicone Gastric Banding: Complications,
   *Journal of Laparoendoscopic & Advanced Surgical Techniques*, Volume 13, Number 4, 2003,
   271-277.
   (LAP-BAND® System Article)

Laparoscopic adjustable gastric banding is a procedure that is now approved by the Federal Drug
Administration for use in the United States to treat morbid obesity. Numerous complications can
occur as a result of the device. These include both early technical complications as well as long-term
problems such as esophageal dilatation and failed weight loss. While improvements in surgical
technique may decrease early technical complications such as gastric prolapse, long-term follow-up
studies will be required to determine the ultimate success of this device in controlling severe obesity.
Optimal management of the super-obese patient (body mass index > 50 kg/m²) undergoing weight loss surgery in the new era of laparoscopic treatment is more controversial than ever before. Newer laparoscopic options for treatment of the super obese, including laparoscopic adjustable gastric banding, sleeve gastrectomy, and staging of gastric bypass, are technically easier and may be safer. Concerns that weight loss may be suboptimal or that the procedures will require revision, or both, make these choices controversial. Open access/conversion for established procedures such as long-limb gastric bypass and biliopancreatic diversion with or without duodenal switch are the traditional alternatives when laparoscopic access fails or is deemed too difficult to undertake. The following debate was presented by invited experts in laparoscopic and open bariatric surgery at the 2005 Annual Meeting of the Society of American Gastrointestinal and Endoscopic Surgeons in Florida. The presenters put forth arguments for the various modern options for treatment of the super obese, which are presented in written form. Interactive audience response technology provided a mechanism for polling the audience before and after the presentations. A review of the audience’s responses provides insight into the decision-making considerations of a population of laparoscopically oriented bariatric surgeons.

Laparoscopic adjustable gastric banding (LAGB) was first introduced in the early 1990s as a potentially safe, controllable, and reversible method for achieving significant weight loss in the severely obese. It is timely to review the existing data on this procedure derived from European, Australian, and American studies and compare and contrast their results. Special emphasis is placed on clinical outcomes and reported complications of LAGB. In general, international studies support use of the LAGB procedure, while American studies are generally better designed but more equivocal in their results.
331. de Menezes Ettinger JEMT, Santos Filho P, Oliveira P, Azaro E, Mello C, do Amaral P, Fahel E, Laparoscopic Gastric Banding in the Rat Model as a Means of Videolaparoscopic Training, 
Obesity Surgery, 16, 2006, 903-907
(LAP-BAND® System Article)

BACKGROUND: The development of laparoscopy in bariatric surgery has attracted a large number of surgeons. Learning this method for future clinical practice requires intensive training with inert tissues, simulators and experimental surgery in animals. Performing these procedures in small animals, with the same equipment used in humans, is feasible, allowing familiarization with and comprehension of the basic techniques. Wistar rats weighing 300-600 g were used. The animals were kept in standard laboratory conditions. A laparoscopic video-system, Veress needle, three ports, a 0 degree optic, a laparoscopic needle-holder, two 5-mm graspers, a 5-mm dissection clamp and a 5-mm scissors were used. An orogastric catheter with three 4-0 nylon sutures and one 6-0 nylon suture were also utilized. For the gastric band, we used a plastic device similar to the human gastric band. The present study describes a simple, inexpensive and reproducible technique for laparoscopic gastric banding in a rat model utilizing the same instruments developed for humans. The experimental rat model is more motivating than simulators, requires less space, and has easier maintenance compared with bigger animals, and consequently allows the use of more animals for teaching, training and application in many scientific studies.

332. Demiroluk S., Salihoglu Z., Zengin K., Kose Y., Taskin M.,
The Effects of Pneumoperitoneum on Respiratory Mechanics during Bariatric Surgery, 
(LAP-BAND® System Article)

BACKGROUND: The aim of this study was to investigate the influence of laparoscopic and conventional open surgery on respiratory mechanics, and blood gases, and to determine convenient techniques from the point of view of intraoperative respiratory mechanics, for bariatric surgery. METHOD: 40 morbidly obese patients were divided into 2 groups, patients undergoing laparoscopy Group 1, and patients undergoing conventional open surgery Group 2. Resistance of airway, dynamic compliance, and peak inspiratory pressure were measured. Measurement was performed in 4 periods: a) after anesthesia induction, b) after pneumoperitoneum in the Group 1 and after incision in the Group 2, c) after gastric band placement, d) and 5 min before extubation. Blood gases were recorded concomitantly. RESULTS: There was no significant difference between the 2 groups in values of blood gases and respiratory mechanics. CONCLUSION: In the morbidly obese, laparoscopic and open surgery did not cause a significant difference for respiratory mechanics when compared with each other.

333. Denoël A., Dandrifosse A-C, Goire B.,
Study of 53 Laparoscopic Re-Interventions for Complicated LAGB, 
Obesity Surgery, 8, 1998, 386.
(LAP-BAND® System Congress Presentation Abstract)
334. Denoël A., Dandrifosse A-C, Goire B.,
A Technique of Repositioning Gastric Banding by Laparoscopy,
(LAP-BAND® System Congress Presentation Abstract)

335. Denoël A., Dandrifosse A-C, Goire B.,
Laparoscopic Adjustable Gastric Banding (LAGB) – 215 Operations. Results,
Complications and Evolution of the Technique,
(LAP-BAND® System Congress Presentation Abstract)

336. Denoël A., Dandrifosse A-C,
Laparoscopic Adjustable Gastric Banding: Evolution of a Technique: A Retrospective
Evaluation of 300 Cases,
*Obesity Surgery*, 9, 1999, 328.
(LAP-BAND® System Congress Presentation Abstract)

337. Denoël A., Coimbra-Marques C., Lo Bue S.,
Treatment of Complications of Laparoscopic Adjustable Gastric Banding,
*Obesity Surgery*, 10, 2000, 329.
(LAP-BAND® System Congress Presentation Abstract)

338. Denoël A., Dandrifosse A-C, Dresse D.,
Ten Years Follow-Up of Adjustable Gastric Banding,
*Obesity Surgery*, 13, 2003, 553.
(LAP-BAND® System Congress Presentation Abstract)
Background: Research about personality factors involved in successful outcome after bariatric surgery has led to contrasting results. The reasons for such discrepancies may include the lack of assessment of adaptive personality traits and of psychiatric co-morbidity, which may limit the reliability of personality findings. This study aimed to provide exploratory data regarding preoperative personality dimensions and weight loss prediction 1 year after laparoscopic adjustable gastric banding (LAGB). Both normal and deviant personality patterns were assessed by means of the Temperament and Character Inventory (TCI). Moreover, co-morbid psychiatric disturbances were evaluated both categorically and dimensionally.

Methods: 65 morbidly obese subjects applying for LAGB were evaluated preoperatively by means of the TCI, standardized diagnostic interview, rating scales and questionnaires to assess co-morbid psychopathology. After intake screening, 35 subjects (mean age 41.2, mean BMI 45.5) were accepted for and underwent LAGB. BMI reduction 1 year following LAGB was used as an outcome measure and entered as a dependent variable in a stepwise multiple regression analysis. TCI scores, presence and severity of eating, depressive and anxiety disorders, sex, age, level of education and BMI at baseline were tested as independent variables.

Results: Preoperative TCI 'Persistence' scores explained >40% of variance of BMI reduction 1 year following LAGB, irrespective of preoperative BMI, age, gender, educational level, psychiatric co-morbidity, psychopathology severity and other temperament and character features.

Conclusions: Some personality dimensions, as measured by the TCI, may be involved in successful weight control after LAGB.

Pylephlebitis, or septic thrombophlebitis of the portal vein, is an infrequent but life-threatening complication of abdominal septic events. The authors report the occurrence of pylephlebitis and multiple liver abscesses induced by a neglected intra-gastric migration of an adjustable silicone gastric band. The patient was successfully treated by broad-spectrum antibiotics and total gastrectomy with Roux-en-Y esophago-jejunostomy. Postoperative recovery was marked by acute liver failure that was managed conservatively. The patient is alive and well at 1-year follow-up. This case emphasizes the interest in early removal of the band when intra-gastric migration is diagnosed.
Background: Laparoscopic adjustable gastric banding (LAGB) has usually been performed as an inpatient procedure with an average hospital stay of 2-4 days. The aim of this study was to assess the feasibility of LAGB as an ambulatory procedure in selected patients. Methods: Potential candidates for ambulatory LAGB were recruited from patients consulting for obesity surgery. The main inclusion criteria were BMI >35 kg/m² with co-morbid conditions, living within a reasonable distance from the hospital, and adult company at home. The patients were admitted at 0700 hours on the day of surgery, underwent laparoscopic placement of a Lap-Band® system and were discharged home that evening. Results: 9 women and 1 man underwent outpatient LAGB. Mean age was 36 (range 18-52) years and mean BMI was 38.4 kg/m² (range 35.1-43.3). Co-morbidities included functional dyspnea (6), osteoarthritis (4), arterial hypertension (4), type 2 diabetes (2) and dyslipidemia (1). 7 patients had undergone previous abdominal surgery: cesarian section (4), appendectomy (3), cholecystectomy (1) and hysterectomy (1). All patients had an American Society of Anesthesiologists (ASA) classification of II. The average operating time was 87 minutes (range 65-115). The mean time lapse between the end of the operation and discharge from hospital was 9.6 hours. There were no readmissions, and no complications were noticed at 1 month postoperatively. The patients' satisfaction with the ambulatory LAGB procedure was high. Conclusion: The present study demonstrates that LAGB for obesity may be performed on an ambulatory basis without complications.
OBJECTIVE: To perform the first prospective trial of laparoscopic versus open adjustable silicone gastric banding (ASGB) in patients with morbid obesity. SUMMARY BACKGROUND DATA: Vertical banded gastroplasty has been used for many years to treat morbid obesity, but the size of the stoma has remained a source of failure after the procedure. ASGB has the advantages of maintaining gastric integrity and the potential for readjustment of the band, if needed. It has been suggested that laparoscopic ASGB, recently introduced to reduce postoperative complications and hospital stay, has a negative impact on outcome. METHODS: Fifty patients with morbid obesity of >5 years' duration and a body-mass index (BMI) > 40 kg/m2 were randomized to undergo laparoscopic or open ASGB. The difficulty of the procedure, surgical time, postoperative complications, and hospital stay were assessed. Stoma adjustments, long-term complications, readmissions, weight loss, and BMI were determined. RESULTS: All procedures were successfully carried out. Of 25 patients assigned to laparoscopic ASGB, 2 were converted to an open procedure. Surgical time was significantly longer for laparoscopic ASGB (150 minutes vs. 76 minutes for open ASGB). There was no difference in complications. Mean hospital stay was 5.9 days for the laparoscopic procedure versus 7.2 days for open ASGB (p < 0.05). The total number of readmissions (6 vs. 15) and overall hospital stay in the first year (7.8 vs. 11.8 days) were lower after laparoscopic ASGB (p < 0.05). Weight and BMI were reduced significantly in both groups, but there was no difference between the groups. CONCLUSION: Laparoscopic and open ASGB were equally effective in terms of early (first-year) weight loss, reduction of BMI, and postoperative complications. The laparoscopic procedure was associated with a shorter initial hospital stay and fewer readmissions during follow-up and is therefore the preferred treatment in morbidly obese patients undergoing ASGB.
BACKGROUND: Bariatric surgery depends on complete preoperative study of morbid obesity, in order to obtain the treatment of choice. A multidisciplinary group was founded in 1998 at the University of Siena. METHODS: During 1998, 16 patients, with median weight 121.8 +/- 31 kg and median body mass index (BMI) 43 +/- 6, underwent bariatric surgery. A multidisciplinary assessment was used in order to evaluate psychological status, food intake problems and patient compliance, and hemodynamic, respiratory, metabolic and arthritic functions. 13 patients were submitted to laparoscopic surgery: in 11 adjustable gastric banding was performed and 2 were submitted to a vertical gastroplasty plus adjustable gastric banding. Three patients were operated via traditional laparotomy, due to previous abdominal surgery in 2 cases (submitted to an adjustable gastric banding) and one woman was submitted to a bilio-intestinal bypass according to the Hallberg technique, for her psychiatric troubles and coexisting systolic hypertension and uncontrolled diabetes. Monthly follow-up for each patient continues after 6 months. RESULTS: No morbidity or mortality has occurred. The median weight loss at three months, was 19.5 kg. Two cases required injection of 1 ml more of fluid into the port, respectively at 4 and 9 months. Fifteen days after surgery, seven patients (46%) had vomiting episodes, due to rapid food intake. All patients have shown an improvement of their co-morbidities after surgery. CONCLUSION: Early results via the multidisciplinary team and laparoscopic banding have been satisfactory thus far.
BACKGROUND: Several endocrine abnormalities are reported in obesity. In an earlier study, we found that the changes in BMI following laparoscopic adjustable gastric banding (LAGB) were associated with changes in hormone profiles such as insulin and proinsulin. In the current study, we explored the changes in plasma adiponectin levels in morbidly obese subjects who lost abundant weight following LAGB.

METHODS: 23 adult morbidly obese patients (15 females), aged 21-56 years, were studied. Blood samples were collected before, and 6 and 14 months after LAGB. The plasma adiponectin levels were determined by commercial kit (B-Bridge International, Inc). Statistical analysis was based on one-way repeated measures ANOVA, followed by Student-Newman-Keuls post-hoc test. Regression model was used to look for predictors of adiponectin change after LAGB.

RESULTS: Mean BMI before surgery was 46.04+/−4.44 kg/m2, and decreased significantly by 18% 6 months after surgery to 37.67+/−4.47 kg/m2. BMI further decreased by 32% 14 months after surgery to a mean of 31.30+/−4.65 kg/m2 (P=.000). The mean adiponectin level before surgery was 3997+/−1766 microg/ml, and increased significantly by 16% to 4763+/−1776 microg/ml 6 months after surgery, and to 6336+/−3292 microg/ml (37%) 14 months after surgery. Although BMI persistently decreased, while adiponectin persistently increased, BMI did not correlate with adiponectin.

CONCLUSION: In morbidly obese patients who underwent LAGB, adiponectin levels persistently increased, probably due to the reduction of visceral fat mass. Adiponectin plasma increase was correlated with proinsulin levels prior to the surgery. The interaction between adiponectin, proinsulin and BMI change in morbid obesity merits further investigation.
Obesity is considered a primary risk factor for cardiovascular disease and related mortality. The current study aimed to investigate the efficacy of minimal invasive gastric banding (GB) surgery for reducing caloric intake in morbid obesity, and to analyze the effects of weight loss on body composition and metabolic and psychosocial outcomes. Twenty-six adult severely obese patients (mean body mass index [BMI], 48.1 kg/m²; range, 42 to 56) underwent adjustable silicone laparoscopic GB. Nine additional obese patients who declined surgery were treated with metformin (2 g daily) and served as a small additional group (BMI, 50.5 kg/m²; range, 41 to 68). Presurgery and 17 +/- 2.2 months postoperatively, body composition (fat mass [FM], lean body mass [LBM], body water) and serum parameters (lipids, glucose, thyrotropin-stimulating hormone [TSH]) were determined. Quality of life (QoL) was evaluated by a standardized self-rating questionnaire (Short Form-36 [SF-36]), and supplemented by measures of physical complaints and psychological distress. After GB, weight loss was 21 +/- 14.9 kg (14%, P <.001). It was associated with a decrease in FM by 14 +/- 8.6 kg (18%, P <.001), LBM by 4 +/- 2.7 kg (5%, P <.001), body water by 4 +/- 3.4 L (7%, P <.01), systolic blood pressure by 16 +/- 26.3 mm Hg (10%, P <.05), total cholesterol by 0.69 +/- 1.29 mmol/L (12%, P <.05), and low-density lipoprotein cholesterol (LDL-C) by 0.38 +/- 0.39 mmol/L (10%, P <.05). Highly significant interactions between surgery and time were noted for weight (P <.005), BMI (P <.005), and FM (P <.005, analysis of variance [ANOVA]). Preoperatively, 14 of 26 patients (54%) had high fasting blood sugar levels (type 2 diabetics) and 11 (42%) had impaired glucose tolerance, whereas postoperatively, for baseline glucose levels a trend to decrease was noted. Neither malabsorption nor anemia was observed. QoL improved after GB; in particular, physical functioning and well being increased (P <.01), and somatic complaints (eg, dyspnea and heart complaints, pain in legs and arms) markedly decreased (P =.008). In the metformin group, neither relevant weight loss nor a significant decrease of biochemical values was observed. Minimal invasive GB is a successful therapeutic tool for reducing FM in morbidly obese patients. Weight loss resulted in improved metabolic parameters, suggesting a lowered atherogenic risk.
BACKGROUND: Asthma and morbid obesity are common chronic conditions that may be related. Laparoscopic banding provides effective weight control of morbid obesity. The aim of this study was to evaluate the prevalence of asthma in the morbidly obese and the changes in asthma after laparoscopic adjustable gastric banding (LAGB) (Lap-Band) surgery for morbid obesity. METHODS: Asthma was assessed preoperatively in all patients presenting for LAGB. 32 consecutive asthmatic patients were followed up clinically and by a standard questionnaire at least 12 months after surgery, and any change in asthma impact was recorded. RESULTS: The prevalence of the doctors' diagnosis of asthma was 24.6% (73 of 296 consecutive patients). This was significantly higher than the prevalence in the Australian community of 12% to 13% (P < 0.001). The 32 patients who were followed up had a mean body weight of 125.2 kg and a body mass index (BMI) of 45.7 kg/m² prior to operation, and a weight of 89.3 kg (BMI 32.9 kg/m²) at follow-up. All 32 patients recorded a lower asthma score postoperatively. There were significant improvements in all aspects of asthma assessed. These included severity, daily impact, medications needed, hospitalization, sleep, and exercise. The mean preoperative scaled asthma score was 44.5 +/- 16. There was a highly significant reduction at follow-up to a mean value of 14.3 +/- 11 (P < 0.001). CONCLUSIONS: There is a high prevalence of asthma in morbidly obese adults, and major reductions in asthma severity occur after Lap-Band(r) surgery and weight loss. Mechanisms other than direct weight loss appear to play a part in this improvement. Prevention of gastroesophageal reflux may be an important factor.
BACKGROUND: Gastroesophageal reflux disease (GERD) is a common condition which is often aggravated by morbid obesity. Lap-Band surgery provides effective weight loss in the morbidly obese. There have been several reports that gastric banding causes or aggravates reflux. The aim of this study was to evaluate the effect of Lap-Band placement on GERD. METHODS: All patients with a significant history of GERD who had a Lap-Band inserted over a 2-year period were evaluated postoperatively to assess any change in impact on reflux. Resolution required absence of reflux symptoms and no anti-reflux drug therapy. RESULTS: There were 48 (16%) of 274 consecutive patients with a significant history of reflux esophagitis requiring regular therapy preoperatively. The median age was 39 (range 23-58) and M:F ratio was 5:43. We confirm a high prevalence of GERD in patients with morbid obesity: 17% with symptoms requiring regular therapy (Community Norm 7%). Total resolution of all reflux symptoms occurred in 36 (76%) patients, improvement in 7 (14%), no change in 3 (6%), and aggravation of symptoms in 2 (4%). Patients with severe and moderate symptoms had similar improvement. Resolution or improvement was reported soon after surgery. CONCLUSION: Rapid and major improvement in symptoms of GERD occurs after Lap-Band placement. The placement of the band probably acts directly to reduce reflux. This result contrasts with reports which have found gastric banding causes or aggravates GERD.
BACKGROUND: Obesity causes sleep disturbance and is the most significant risk factor for sleep apnea. Only surgical methods provide substantial sustained weight loss for most severely obese subjects. OBJECTIVE: To study sleep disturbance in patients undergoing laparoscopic adjustable gastric banding with a commercially available product (Lap-Band). METHODS: In this study, 313 consecutive patients with severe obesity (body mass index [calculated as weight in kilograms divided by the square of height in meters] >35) completed a preoperative sleep questionnaire and clinical assessment. One hundred twenty-three patients completed the same assessment 12 months after surgery. The characteristics of sleep disturbance and changes in responses to weight loss have been assessed. RESULTS: There was a high prevalence of significantly disturbed sleep in men (59%) and women (45%), with women less likely to have had their sleep disturbance investigated. Observed sleep apnea was more common in men, but daytime sleepiness was not affected by sex. Waist circumference was the best clinical measure predicting observed sleep apnea (R = 0.36; P<.001). The group lost an average of 48% (SD, 16%) of excess weight by 12 months. There was a significant improvement in the responses to all questions at follow-up, with habitual snoring reduced to 14% (preoperative value, 82%), observed sleep apnea to 2% (preoperative value, 33%), abnormal daytime sleepiness to 4% (preoperative value, 39%), and poor sleep quality to 2% (preoperative value, 39%) (P<.001 for all). CONCLUSIONS: Obesity-related sleep disorders improve markedly with weight loss. Sustainable weight loss should be a primary aim in the management of severely obese patients with significant sleep disturbance, including sleep apnea. Low-risk laparoscopic obesity surgery should be considered for selected patients with this important comorbidity.
BACKGROUND: Severely obese women have higher obstetric risks and poorer neonatal outcomes. Weight loss reduces obstetric risk. The introduction of a laparoscopically-placed adjustable gastric band, a safe and effective method of weight loss, has given us the ability and responsibility to adjust the band in relation to pregnancy.

OBJECTIVE: Our aim was to devise a safe management plan to achieve healthy maternal weight gain (Institute of Medicine 1990) during pregnancy.

METHODS: In a cohort group of 650 patients to have a Lap-Band placement for severe obesity, we have reviewed the management of the band and pregnancy outcomes of all women (n=20) to complete a pregnancy (n=22) with a band in-situ.

RESULTS: All 22 pregnancies were singleton, with no primary caesarean sections (3 for recurring indications). The mean maternal weight gain was 8.3 kg compared with 15.2 kg for the 15 previous pregnancies of women in this group (p<0.05). There was no difference in birth weights. Obstetric complications were minimal, and there were no premature or low birth weight infants. 11 of 15 subjects with active management of the band achieved a maternal weight gain within the advised range compared with only 2 of 7 prior to this.

CONCLUSION: The ability to adjust gastric restriction allows optimal control of maternal weight change in pregnancy and should help avoid the risks of excessive weight change.
BACKGROUND: The authors studied a range of preoperative factors for their predictive value of effectiveness of Lap-Band placement, using the percentage of excess weight loss at 1-year as the outcome measure (%EWL1). METHODS: All factors were measured and recorded prior to surgery. Factors included: patient demographics, family, medical and weight history. Laboratory measures and the responses to the SF-36 Health Survey were also assessed. Factors were assessed for correlation with %EWL1. RESULTS: The group (N=440, F:M 383:57) had mean age 40.0+/-.9.5 years, weight of 126+/-.25 kg, and BMI 45.6+/-.7.5 kg/m2 pre-operatively. At 1-year follow-up, the group had mean weight 97.6< or =20 kg, BMI 35.6 = 6.3 kg/m2, and %EWL1 45.8< or =17%. Increasing age (R= - 0.13, p<0.01) and preoperative BMI (R=-0.22, p<0.001) were significantly associated with less %EWL1 and all other factors were controlled for these before assessing significance. Important factors associated with a lower %EWL1 included: hyperinsulinemia (R=-0.36, p<0.001), insulin resistance (R=-0.33, p<0.001) and disease associated with insulin resistance, poor physical ability, pain, and poor general health responses to the SF-36 Health Survey. Patients who consumed alcohol regularly had a better rate of weight loss (R= 0.23, p<0.005). Factors that had no influence included gender, a history of mental illness and measures of mental health, previous bariatric surgery, and a history of many medical conditions associated with obesity. CONCLUSION: Important physical factors have been found to influence the rate of weight loss. Those with increased age, pain, physical disability and insulin resistance have a great deal to gain from weight loss. Although this study has identified factors that are associated with less weight loss, we have not found any factor that predicts an unacceptably low weight loss and thus provides a contraindication to Lap-Band placement. The findings of this study allow us to set more realistic goals for the rate of weight loss in specified subgroups of our patients.

OBJECTIVE: To investigate homocysteine levels and their relationship with serum folate and vitamin B12 concentrations with weight loss after the Lap-Band form of gastric restrictive surgery, with the view to minimizing risk. METHODS: We measured levels of fasting plasma homocysteine (tHcy), folate (serum and RBC) and vitamin B12 in two groups. The study group was 293 consecutive patients at 12 (n=192) or 24 (n=101) months review after surgery. The controls were 244 consecutive patients presenting for this surgery. RESULTS: The group losing weight had higher geometric mean tHcy levels: 10.4 (95% CI, 9.8-10.8) micromol/l compared with 9.2 (95% CI, 8.9-9.7) in controls (P<0.001). This occurred with higher folate levels and unchanged vitamin B12 levels. Levels of folate and B12 together explained 35% (r^2) of the homocysteine variance in the weight loss group compared with only 9% (r^2) in controls (P<0.001). Those taking regular multivitamin supplements had lower tHcy levels: 9.6 (9.1-10.0) micromol/l vs 12.3 (11.4-13.3) in those not taking supplements (P<0.001). A low normal plateau of tHcy levels occurred at levels of folate >15 ng/l and B12>600 ng/ml. A curvilinear relationship exists between these cofactors and tHcy levels, with the dose-response relationship shifted to the right in the weight loss group. CONCLUSION: This study shows elevated tHcy levels with weight loss, without lower serum folate or vitamin B(12) levels. There is an altered dose-response relationship with higher serum B(12) and folate levels required to maintain recommended tHcy levels. Patients losing weight have significant health benefits; however, they may be at greater risk of vascular events or fetal abnormality in association with raised tHcy levels. Multivitamin supplementation is effective in lowering tHcy levels.
OBJECTIVE: To assess the quality of life (QOL) in severely obese subjects before and after Lap-Band gastric restrictive surgery and identify factors that may influence change. RESEARCH METHODS AND PROCEDURES: All patients, over a 3-year period, attending for preoperative assessment (n = 459) or annual review after surgery (n = 641) have completed the Short Form-36 (SF-36) health survey. Eight domain and physical component summary (PCS) and mental component summary (MCS) scores were calculated. Scores were analyzed in groups based on time after surgery and compared with community normal (CN) values. Paired preoperative and 1-year scores (n = 218) data were used to find predictors of QOL change. RESULTS: All preoperative mean scores (n = 459) were lower than CN values, with greater impairment in the PCS (36.8 +/- 9.5 vs. CN: 51.3 +/- 8.3, p < 0.001) than in the MCS (45.7 +/- 8.2 vs. CN: 48.8 +/- 9.5, p < 0.001) scores. After 1 year, scores were closer to CN scores (PCS: 52.4 +/- 8.2 and MCS: 48.4 +/- 7.7), and these remained closer for 4 years. Preoperative obesity comorbidity, especially physical disability, was the best predictor of poor preoperative SF-36 scores and of improvement in scores at 1 year. The percentage of excess weight loss at 1 year (46 +/- 16%) was of little predictive value of improved QOL. DISCUSSION: Severely obese subjects have poor health-related QOL as measured by the SF-36 health survey. Lap-Band surgery for this group has provided a dramatic and sustained improvement in all measures of the SF-36. Improvement is greater in those with greater preoperative disability, and the extent of weight loss is not a good predictor of improved QOL.

No abstract available
Optimal patient selection for laparoscopic adjustable gastric banding with the LAP-BAND (INAMED Health, Santa Barbara, CA) enables maximization of results for patients most suited to the procedure and avoidance of unsatisfactory outcomes for inappropriate candidates. We have investigated potential predictors of outcomes in our patients to look for associations with weight loss. We have also reviewed published data for additional predictors. This analysis has revealed a number of conditions associated with a significantly lower percent excess weight loss (%EWL) than experienced in the overall group. These include increasing age, increasing body mass index (BMI), hyperinsulinemia, insulin resistance, type 2 diabetes, and polycystic ovary syndrome. There was also less weight loss if the SF-36 quality-of-life measure showed a poor physical activity score, high pain score, or poor general health score. However, in all these conditions, the effect was small in comparison with the benefits achieved by these patients, and was judged insufficient to preclude this approach to treatment of their obesity. A number of conditions were found to have no relation to weight loss after LAP-BAND placement. These included sex, presence of mental illness, most co-morbidities except those linked to insulin resistance, previous bariatric surgery, and sweet-eating behavior. The value of psychologic assessment to predict outcomes could not be established. The superobese (BMI >50) achieved a lower %EWL at 1 year after LAP-BAND placement compared with those with BMI <50, but there were no differences at the 2-, 3-, and 4-year follow-ups.
Possibly the most important outcomes of bariatric surgery involve changes in obesity-related illness, quality of life (QOL), and psychologic well-being. Dramatic improvement or resolution of serious medical comorbidity accompanies the weight loss following laparoscopic adjustable gastric banding with the LAP-BAND (INAMED Health, Santa Barbara, CA). There are major improvements in the conditions of the metabolic syndrome, which is characterized by impaired glucose tolerance, dyslipidemia, and hypertension. Improvement in insulin sensitivity and pancreatic beta-cell function associated with weight loss induces remission in the majority of type 2 diabetics and reduces the risk of others developing type 2 diabetes. Improvement in dyslipidemia is characterized by raised high-density lipoprotein cholesterol and lower triglyceride concentrations. Together with lower blood pressure, these changes provide a substantial reduction in cardiovascular risk. Other medical conditions caused or aggravated by obesity are also significantly improved, including sleep apnea, daytime sleepiness, asthma, and gastroesophageal reflux. Weight loss is associated with improved fertility and more favorable pregnancy outcomes. All aspects of QOL improve substantially, especially physical disability, and post-weight-loss QOL measures approximate those of the general population. There are also major improvements in body image and reduction in depressive illness. These changes provide perhaps the most compelling data regarding the value of LAP-BAND surgery and underlie the great satisfaction experienced by patients.
OBJECTIVE: To prospectively examine the effect of weight loss 1 year after laparoscopic adjustable gastric band surgery on a broad range of health outcomes in 50 diabetic subjects. RESEARCH DESIGN AND METHODS: A total of 50 (17 men, 33 women) of 51 patients with type 2 diabetes, from a total of 500 consecutive patients, were studied preoperatively and again 1 year after surgery. RESULTS: Preoperative weight and BMI (means +/- SD) were 137 +/- 30 kg and 48.2 +/- 8 kg/m², respectively; at 1 year, weight and BMI were 110 +/- 24 kg and 38.7 +/- 6 kg/m², respectively. There was significant improvement in all measures of glucose metabolism. Remission of diabetes occurred in 32 patients (64%), and major improvement of glucose control occurred in 13 patients (26%); glucose metabolism was unchanged in 5 patients (10%). HbA1c was 7.8 +/- 3.2% preoperatively and 6.2 +/- 2.7% at 1 year (P < 0.001). Remission of diabetes was predicted by greater weight loss and a shorter history of diabetes (pseudo r(2) = 0.44, P < 0.001). Improvement in diabetes was related to increased insulin sensitivity and beta-cell function. Weight loss was associated with significant improvements in fasting triglyceride level, HDL cholesterol level, hypertension, sleep, depression, appearance evaluation, and health-related quality of life. Early complications occurred in 6% of patients (wound infections in 4%, respiratory support in 2%), and late complications occurred in 30% of patients (gastric prolapse in 20%, band erosion in 6%, and tubing leaks in 4%). All late complications were successfully revised surgically. CONCLUSIONS: Modern laparoscopic weight-loss surgery is effective in managing the broad range of health problems experienced by severely obese individuals with type 2 diabetes. Surgery should be considered as an early intervention.
OBJECTIVE: To characterize dyslipidemia before and after weight loss in the severely obese.

RESEARCH METHODS AND PROCEDURES: Five hundred fifteen subjects who had Lap-Band surgery were followed with yearly conventional lipid profiles for up to 4 years. Preoperative data were collected from the most recent 381 subjects, and predictors of dyslipidemia were sought. One hundred seventy-one subjects completed a 1-year review, providing data to assess predictors of change in lipids. RESULTS: Favorable changes in fasting triglycerides (TG), high-density lipoprotein-cholesterol (HDL-C), and total cholesterol (TC):HDL-C ratio occurred within 1 year. All improvements were maintained up to 4 years. Male gender, central obesity, elevated fasting glucose, and insulin resistance were associated with less favorable lipid levels. Fasting plasma glucose best predicted TG (r = 0.46, p < 0.001), whereas insulin sensitivity using the homeostatic model assessment (HOMA %S) correlated best with the HDL-C (r = 0.34, p < 0.001). Higher preoperative fasting glucose best predicted the decrease in TG; improved HOMA %S with weight loss correlated best with HDL-C. The extent of weight loss had limited influence on lipid changes. However, low preoperative HOMA %S was associated with lower weight loss. Greater weight loss was associated with more favorable lipid measures after controlling for preoperative HOMA %S. DISCUSSION: Dyslipidemia of obesity is related to weight distribution, insulin sensitivity, and impaired glucose tolerance. Improvement with weight loss is related to the decrease in fasting glucose, improvement in insulin sensitivity, and the extent of weight lost. Improvement in dyslipidemia is sustained with long-term weight loss.
BACKGROUND: The severely obese experience discrimination and embarrassment regarding their appearance, causing psychosocial distress. We assessed the importance of appearance, presentation and self-evaluation of appearance before and after weight loss, in severely obese subjects (BMI > 35 kg/m²).

METHODS: Appearance orientation (AO) and appearance evaluation (AE) sections of the Multi-dimensional Body Self Relations Questionnaire were completed by preoperative patients and those attending an annual follow-up after Lap-Band gastric restrictive surgery over a 2-year period.

AO is a measure of the importance one places in appearance. AE is a self-evaluation of one's appearance.

RESULTS: Before surgery 322 consecutive patients (48 men and 274 women) completed the survey. AO was similar to that of community norms (mean scores 3.76 +/- 0.6 vs 3.84 +/- 0.6), with the exception of the super obese (BMI > 50 kg/m²) who placed significantly less importance on their appearance (3.34, +/- 0.8, p = 0.001). There was no change in AO at 1-4 years after surgery, with the exception of the super obese whose mean values rose to normal by 1 year.

AE was very low before surgery compared with community normal values (1.6 +/- 0.6 vs 3.4 +/- 0.8, p < 0.001). Major improvement in mean AE was seen at 1 year after surgery (n = 209, 2.6 +/- 0.8, p < 0.001) and the improvement was maintained out to 4 years. The change in AE from pre-surgery to 1 year (n = 122 paired) correlated positively with the percentage of excess weight lost (r = 0.32, p < 0.01) and positively with measures of quality of life and psychological disturbance.

CONCLUSION: Major improvements in appearance evaluation occur with weight loss after surgery and this is associated with psychological benefit.

369. Dixon J., Dixon A., O'Brien P.,
Improvements in Insulin Sensitivity and Betacell Function (HOMA) with Weight Loss in the Severely Obese,
(LAP-BAND® System Congress Presentation Abstract)
370. Dixon J, O’Brien P,
Neck circumference a good predictor of raised insulin and free androgen index in obese premenopausal women: changes with weight loss,
Clinical Endocrinology, 57, 2002, 769-778.
(LAP-BAND® System Article)

OBJECTIVE: Severe obesity can be associated with evidence of androgen excess and insulin resistance, which are features of the metabolic and polycystic ovary syndromes (PCOS). In this study, we examined the association between clinical and biochemical features of these syndromes and assess changes with weight loss. DESIGN: A consecutive series of 107 severely obese premenopausal women presenting for obesity surgery. MEASUREMENTS: Pre-operative assessment included details of clinical comorbidity, anthropometric measures and biochemical measures, including fasting insulin, glucose, lipid profile and sex hormone analysis. Changes in these measures for 42 of 52 (81%) patients at 1 year post surgery are reported. RESULTS: Neck circumference and younger age were independent predictors of higher free androgen index (FAI) (combined r² = 0.36). If neck circumference is not included, then younger age, higher body mass index and raised fasting insulin levels were all independent predictors of FAI (r² = 0.29). Waist to hip ratio showed no predictive value (r = 0.14). Neck circumference was also a good clinical predictor of menstrual irregularity, hirsutism, infertility, insulin resistance and the PCOS. Neck circumference of less than 39, 39-42 and greater than 42 cm reflect a low, intermediate and high risk of the metabolic and PCOS syndromes in obese premenopausal women. For 42 patients who were followed for 1 year after surgery, the weight loss was associated with reduction of FAI, less insulin resistance and improved menstrual regularity and resolution of the PCOS in 11 of 12 cases. CONCLUSIONS: Neck circumference is a good predictive measure of hyperinsulinaemia and raised androgens in obese premenopausal women. Weight loss following surgery improves ovarian function and vasculopathic risk.
371. Dixon J., Dixon M., O'Brien P.,
Improvements in Insulin Sensitivity and β-cell Function (HOMA) with Weight Loss in the Severely Obese,
*Diabetes Medicine, 20, 2003, 127-134.*
(LAP-BAND® System Article)

AIMS: To examine the effect of weight loss on insulin sensitivity and beta-cell function in severely obese subjects of varying glycaemic control. PATIENTS AND METHODS: Subjects were 254 (F:M 209:45) patients having adjustable gastric banding for severe obesity, with paired biochemical data from before operation and at 1-year follow up. The homeostatic model assessment method was used to calculate insulin sensitivity (HOMA%S) and beta-cell function (HOMA%B). Subjects were grouped by diabetic status and by pre-weight loss HbA1c. RESULTS: Initial mean (sd) weight and body mass index were 128 (26) kg and 46.2 (7.7) kg/m², respectively, and at 1-year were 101 (22) kg and 36.4 (6.7) kg/m². The percentage of excess weight lost (%EWL) was 44.3 (14)%. HOMA%S improved from 37.5 (16)% presurgery to 62 (25)% (P < 0.001). %EWL was the only predictor of HOMA%S improvement (r = 0.28, P < 0.001). Subjects with normal fasting glucose, impaired fasting glucose and Type 2 diabetes had a fall, no change and increase in HOMA%B, respectively. The improvement in HOMA%B in subjects with diabetes (n = 39) was inversely related to the time with diabetes (r = -0.36, P = 0.02). In non-diabetic subjects the HOMA%S-HOMA%B relationship was favourably altered with weight loss, so that for any given HOMA%S there was an increase in HOMA%B (t = 11.8, P = 0.001). This improvement in HOMA%B was positively related to %EWL (r = 0.25, P = 0.019). DISCUSSION: There are beneficial changes in both insulin sensitivity and beta-cell function with weight loss. Modern laparoscopic obesity surgery may have an important early role in the management of Type 2 diabetes in obese subjects.

372. Dixon J.,
Outcomes of Laparoscopic Adjustable Gastric Band Surgery for Severe Obesity: Weight Loss, Comorbidity and Quality of Life,
*ANZ J. Surg, 73 (Suppl), 2003, A61*
(LAP-BAND® System Congress Presentation Abstract)

373. Dixon J., O'Brien P.,
Important Hematological Micronutrients after Lap-Band® Induced Weight Loss: Who Needs Supplements?,
*Obesity Surgery, 13, 2003, 553.*
(LAP-BAND® System Congress Presentation Abstract)

374. Dixon J., Anderson M., Cameron-Smith D., O'Brien P.,
Sustained Weight Loss in Obese Subjects Has Benefits that are Independent of Attained Weight,
*Obesity Surgery, 13, 2003, 908.*
(LAP-BAND® System Congress Presentation Abstract)
375. Dixon J., Bhathal P., O’Brien P.,
Resolution and Improvement of Non-Alcoholic Fatty Liver Disease and Hepatic Fibrosis with Weight Loss,
(LAP-BAND® System Congress Presentation Abstract)

376. Dixon J., Dixon M., O’Brien P.,
Depression in Association with Severe Obesity – Changes with Weight Loss,
*Archives of Internal Medicine*, Volume 163, 2003, 2058-2065.
(LAP-BAND® System Article)

BACKGROUND: The relationship between depression and severe obesity is unclear. We examined depression before and after surgically induced weight loss. METHODS: Beck Depression Inventory (BDI) questionnaires were completed before and at yearly intervals after gastric-restrictive weight-loss surgery. We used the BDI scores of 487 consecutive patients to identify predictors of depression. Scores from all completed questionnaires were used to follow changes with time. Paired preoperative and 1-year postoperative scores (n = 262) were used to identify predictors of change in BDI score. RESULTS: For the 487 subjects, the mean +/- SD preoperative BDI score was 17.7 +/- 9.5. Higher scores, indicating increased symptoms of depression, were found in younger subjects, women, and those with poorer body image. These factors had independent effects. We found no association between BDI and waist circumference or insulin concentrations. High BDI scores correlated with poorer physical and mental quality-of-life measures. Weight loss was associated with a significant and sustained fall in BDI scores, with a mean +/- SD score of 7.8 +/- 6.5 at 1 year and 9.6 +/- 7.7 at 4 years after surgery. Greater falls in BDI score at 1 year were seen in women, younger subjects, and those with greater excess weight loss (combined r² = 0.10; P<.001). Fall in BDI score correlated with improvement in appearance evaluation (r = -0.31; P<.001). CONCLUSIONS: Severely obese subjects, especially younger women with poor body image, are at high risk for depression. We found sustained improvement with weight loss. These findings also support the hypothesis that severe obesity causes or aggravates depression.

377. Dixon J., O’Brien P.,
Laparoscopic Adjustable Gastric Banding for Severe Obesity – an Important Role for the Bariatric Physician,
(LAP-BAND® System Article)

No abstract available

378. Dixon A., Dixon J., O’Brien P.,
Laparoscopic Adjustable Gastric Banding Induces Satiety: A Randomized Crossover Study,
(LAP-BAND® System Congress Presentation Abstract)
The effect of significant weight loss on nonalcoholic fatty liver disease remains unclear. In this case series of 36 selected obese patients, we examined the effect of weight loss on nonalcoholic fatty liver disease, including nonalcoholic steatohepatitis (NASH) and hepatic fibrosis. These 36 patients (11 males, 25 females) had paired liver biopsies, the first at the time of laparoscopic adjustable gastric band placement and the second after weight loss. Second biopsies were obtained from two groups: those requiring a subsequent laparoscopic procedure (n = 19) and those with index biopsy score of 2 or greater for zone 3-centric hepatic fibrosis (n = 17). All biopsies were scored, blinded to the patient's identity and clinical condition, for individual histological features and for NASH stage and grade. Initial biopsies demonstrated NASH in 23 patients and steatosis in 12 patients. Repeat biopsies were taken at 25.6 +/- 10 months (range, 9-51 months) after band placement. Mean weight loss was 34.0 +/- 17 kg, and percentage of excess weight loss was 52 +/- 17%. There were major improvements in lobular steatosis, necroinflammatory changes, and fibrosis at the second biopsy (P <.001 for all). Portal abnormalities remained unchanged. Only four of the repeat biopsies fulfilled the criteria for NASH. There were 18 patients with an initial fibrosis score of 2 or more compared with 3 patients at follow-up (P <.001). Those with the metabolic syndrome (n = 23) had more extensive changes before surgery and greater improvement with weight loss. In conclusion, weight loss after surgery provides major improvement or resolution of obesity and metabolic syndrome-associated abnormal liver histological features in severely obese subjects.
OBJECTIVE: To explore the hypothesis that sustained weight loss in severely obese patients may have benefits that are independent of their attained BMI. RESEARCH METHODS AND PROCEDURES: We conducted a comparison of two weight-stable groups with BMI in the 30 to 35 kg/m(2) range. Subjects (n = 79) were selected obese patients 3 years after laparoscopic adjustable gastric band surgery, and controls (n = 79) were obese patients seeking weight loss therapy. Subjects were selected in a de-identified manner from our database to best match the control group. A range of clinical, biochemical, and questionnaire measures were obtained to assess obesity-related health status. RESULTS: Subjects maintained a mean weight loss of 32.8 +/- 18 kg after surgery. The weight loss subjects had significantly lower fasting plasma glucose, insulin, and triglyceride concentrations, along with higher high-density lipoprotein-cholesterol levels and better indirect measures of insulin sensitivity when compared with controls (p < 0.05 for all). In addition, aminotransferase levels, neutrophil counts, and globulin levels were also significantly lower in weight loss subjects. All differences in laboratory variables remained significant after controlling for BMI. The subjects also reported better health-related quality of life, fewer symptoms of depression, and greater satisfaction with their appearance than controls. DISCUSSION: These findings suggest that the post-weight loss state conveys benefits that are greater than predicted by the attained BMI. These findings may have important implications regarding the expectations of weight loss therapy, and mechanisms for this effect should be carefully sought.
OBJECTIVE: While obstructive sleep apnea (OSA) is strongly related to obesity, few studies have examined polysomnographic (PSG) changes with major weight loss. We examined the effect of weight loss following laparoscopic adjustable gastric banding (LAGB) on the PSG changes in patients with severe OSA. In addition, we studied daytime sleepiness, the metabolic syndrome and quality of life (QOL). METHODS: A prospective study was conducted of 25 severely obese patients (17 men, eight women) with paired diagnostic PSG, biochemical and questionnaire studies, the first prior to LAGB and the second at least 1 y later. Subjects with a baseline apnea-hypopnea index (AHI) >25/h were included. RESULTS: Subject baseline age was 44.7 y, weight 154 kg and body mass index 52.7 kg/m(2). The second PSG study was conducted 17.7 +/- 10 (range 12-42) months after surgery and mean percentage of excess loss and weight loss were 50.1 +/- 15% (range 24-80%) and 44.9 +/- 22 kg (range 18-103 kg), respectively. There was a significant fall in AHI from 61.6 +/- 34 to 13.4 +/- 13, improved sleep architecture with increased REM and stage III and IV sleep, daytime sleepiness, as measured by Epworth Sleepiness Scale, of 13 +/- 7.0 to 3.8 +/- 3.0, and fewer patients requiring nasal continuous positive airways pressure (CPAP). There were also major improvements in the metabolic syndrome, QOL, body image and fewer symptoms of depression (P<0.05 for all). CONCLUSION: Weight loss provides major improvement or resolution of OSA and CPAP requirements. It also reduces daytime sleepiness, and improves the metabolic syndrome and QOL. LAGB placement should be considered a broadly effective therapy for sleep apnea in the severely obese patient.
BACKGROUND: The single most important attribute of the laparoscopic adjustable gastric band (LAGB) is its adjustability. Having the correct volume of fluid within the band is crucial for optimal performance. We observe a small reduction of the satiety-promoting effect with time. The characteristics and clinical relevance of volume change have not been adequately investigated.

METHOD: One observer measured the saline volume within the 10-cm Lap-Band in 118 consecutive patients who fulfilled the entry criteria. The same observer had performed and recorded the previous adjustment. Initial volume, final volume and time between observations provide the data for analysis. In addition, a range of adjustable gastric bands currently available were bench-tested to assess broad applicability of findings. RESULTS: The difference between observations varied from 0.0 ml to -1.0 ml, median of -0.1 interquartile range (IQR) 0.0-0.2 ml. Two factors were associated with volume change: time in days between the observations (r = -0.55, P<0.001) and the initial volume within the band system (r = -0.50, P<0.001). These two independent factors accounted for a significant proportion of the variance observed (Cox and Snell R² = 0.45, P<0.001). Replacement of any discrepancy appears to maintain effectiveness. All six bands showed similar saline loss when bench-tested. CONCLUSION: Adjustable gastric bands are semipermeable, leading to a small reduction in saline volume with time. Patients should be informed of this effect, attend for regular follow-up visits and seek help if the band’s effectiveness appears reduced. We recommend that the volume present should be checked and readjusted at least every 6 months.
The sustainability of surgically induced weight loss implies that energy homeostasis is favorably altered. We investigated the hypothesis that laparoscopic adjustable gastric banding (LAGB) induces prolonged satiety and that plasma ghrelin is involved. Seventeen weight-stable subjects who had achieved LAGB-induced weight loss attended blind crossover breakfast tests, one with optimal band restriction and one with reduced restriction. Standardized meals were consumed (0900 h) after 14-h fasting. Satiety visual analog scales were completed hourly (0700-1100 h) before and after feeding. Blood glucose, plasma insulin, ghrelin, and leptin levels were measured. Seventeen body mass index-matched controls were tested. Optimal restriction was associated with significantly greater fasting and postprandial satiety levels than reduced restriction (P < 0.01). Glucose, insulin, ghrelin, and leptin levels did not alter between optimal and reduced restriction. LAGB subjects displayed higher ghrelin (+12%, P = 0.13) and lower glucose (-17%, P = 0.018), insulin (-33%, P = 0.016), and leptin (-32%, P = 0.05) 4-h area under the curve levels than controls. Optimal LAGB restriction increased fasting and postprandial satiety levels. This supports the hypothesis that LAGB provides prolonged satiety, present even during fasting, favorably influencing energy homeostasis. Plasma insulin, leptin, and ghrelin appeared unrelated to the satiety effect and displayed orexigenic compensatory changes. Identifying the mechanisms underlying LAGB-induced satiety may assist the understanding of human energy homeostasis and obesity.
387. Dixon B., Dixon J., Carden J., Burn A., Schachter L., Playfair J., Laurie C., O’Brien P.,
Preoxygenation is more effective in the 25° head-up position than in the supine position
in severely obese patients,
Anesthesiology, 102, 2005, 1110-1115.
(LAP-BAND® System Article)

BACKGROUND: Class III obese patients have altered respiratory mechanics, which are further
impaired in the supine position. The authors explored the hypothesis that preoxygenation in the 25
degrees head-up position allows a greater safety margin for induction of anesthesia than the supine
position. METHODS: A randomized controlled trial measured oxygen saturation and the
desaturation safety period after 3 min of preoxygenation in 42 consecutive (male:female 13:29)
severely obese (body mass index > 40 kg/m) patients who were undergoing laparoscopic adjustable
gastric band surgery and were randomly assigned to the supine position or the 25 degrees head-up
position. Serial arterial blood gases were taken before and after preoxygenation and 90 s after
induction. After induction, ventilation was delayed until blood oxygen saturation reached 92%, and
this desaturation safety period was recorded. RESULTS: The mean body mass indexes for the supine
and 25 degrees head-up groups were 47.3 and 44.9 kg/m, respectively (P = 0.18). The group randomly
assigned to the 25 degrees head-up position achieved higher preinduction oxygen tensions (442 +/-
104 vs. 360 +/- 99 mmHg; P = 0.012) and took longer to reach an oxygen saturation of 92% (201 +/- 55
vs. 155 +/- 69 s; P = 0.023). There was a strong positive correlation between the induction oxygen
tension achieved and the time to reach an oxygen saturation of 92% (r = 0.51, P = 0.001). There were
no adverse events associated with the study. CONCLUSION: Preoxygenation in the 25 degrees head-
up position achieves 23% higher oxygen tensions, allowing a clinically significant increase in the
desaturation safety period--greater time for intubation and airway control. Induction in the 25
degrees head-up position may provide a greater safety margin for airway control.

388. Dixon JB, Dixon M., O’Brien PE,
Outcomes of 100 consecutive pregnancies after laparoscopic adjustable band surgery,
Surgery for Obesity and Related Diseases 1, 2005, 246.
(LAP-BAND® System Abstract)

389. Dixon JB,
Minimal reporting requirements for weight loss: current methods not ideal,
(LAP-BAND® System Abstract)

390. Dixon J., McPhail T., O’Brien P.,
Shoulder pain is a common problem following laparoscopic adjustable gastric band
surgery,
Obesity Surgery, 15, 2005, 980.
(LAP-BAND® System Abstract)
BACKGROUND: Shoulder-tip pain is commonly reported following laparoscopic adjustable gastric band (LAGB) placement. The incidence, nature and factors that may increase the risk of pain have not been explored. METHODS: A prospective extensive collection of patient characteristics and operative details was obtained from consecutive patients having band placement for severe obesity. Postoperatively, the presence and characteristics of shoulder pain were obtained using a structured interview at discharge from hospital, and at 1 and 5 weeks after placement. RESULTS: 66% and 21% of patients at 1 and 5 weeks respectively following surgery reported pain predominantly in the left shoulder. At 5 weeks, only 7% found the pain of concern and 5% required analgesics. There were no factors found that predicted the presence and severity of pain at 1 week. Injury to the crus of the diaphragm (OR 4.2, 1.4-12.6, P=0.01) and a past history of any upper abdominal surgery (OR 4.2, 1.5-11.7, P=0.007) independently predicted an increased risk of pain at 5 weeks. CONCLUSION: Shoulder pain following LAGB surgery is common, usually affects the left shoulder, and can in some cases last 5 weeks or more. Avoiding injury to the crura during the procedure may prevent more prolonged pain.
OBJECTIVE: This prospective study sought to examine the outcomes of 79 consecutive first pregnancies (> 20 weeks of gestation) in women following laparoscopic adjustable gastric banding (LAGB) for severe obesity. METHODS: The 79 women are from a cohort of 1,382 consecutive patients. The prospectively collected data from 79 first pregnancies has been compared with these patients’ previous penultimate pregnancies (n = 40), obstetric histories from matched severely obese subjects (n = 79), and community outcomes. RESULTS: The mean maternal weight gain was 9.6 +/- 9.0 kg, compared with 14.4 +/- 9.7 kg for the 40 penultimate pregnancies of women in this group (P < .001). There was no difference in birth weights: 3,397 g compared with 3,350 g for preband pregnancies, and these were consistent with normal community birth weights. The incidence of pregnancy-induced hypertension (10%) and gestational diabetes (6.3%) were comparable with community levels (12% and 5.5%) and lower than the obese cohort (38% and 19%) and these patients’ penultimate pregnancies (45% and 15%). Monitoring and, if necessary, band adjustments during pregnancy provided more favorable maternal weight outcomes (P = .027). Neonatal outcomes, including stillbirths, preterm deliveries, low birth weight, and high birth weight, were consistent with community values. One woman developed anemia during pregnancy. CONCLUSION: Pregnancy outcomes after LAGB are consistent with general community outcomes rather than outcomes from severely obese women. The adjustability of the LAGB assists in achieving these outcomes. Adjustability is appealing because it allows adaptation to the altered requirements of pregnancy. LEVEL OF EVIDENCE: II-2.
BACKGROUND: Obesity is a chronic inflammatory condition, and elevated white blood cell counts (WBC) have widely recognized associations with inflammatory conditions. The authors explored the relationship between the WBC and degree of obesity, basic anthropology, and clinical and biochemical markers of the metabolic syndrome at baseline, and with weight loss following Lap-Band surgery. METHODS: 477 patients with complete biochemical and clinical data at baseline and at 2 years were selected for analysis. Paired analysis assessed the change in WBC at 2 years, and stepwise linear regression assessed factors independently associated with baseline counts and any change at 2 years. RESULTS: Mean +/- SD weight loss at 2 years was 29.3 +/- 16.2 kg. There were significant decreases in total WBC (-12.2%), and major components, neutrophils (11.7%) and lymphocytes (6.9%), at 2 years (P<0.001 for all). Baseline WBC, neutrophils and lymphocyte counts increased with increasing BMI and decreased with age. Insulin levels were independently positively associated with higher neutrophil counts and triglycerides with higher lymphocyte counts. Age, gender, BMI and components of the metabolic syndrome when modeled together accounted for <10% of the variance of baseline counts. Higher BMI predicted a greater fall in the neutrophil counts at 2 years. Change in BMI at 2 years was the only independent predictor of the change in both neutrophils and lymphocytes, but accounted for <10% of the variance of change. CONCLUSION: BMI contributes to both baseline and weight loss WBC. However, crude WBC counts are influenced in minor ways by obesity markers and have limited value as clinical markers.

A review and updated report of an ongoing prospective investigation of two different adjustable silicone gastric banding devices is presented. One cohort of this study includes 40 subjects who have had a band placed by laparotomy. A second cohort includes 22 subjects who have had a newly designed adjustable silicone gastric band (ASGB) placed by laparoscopic or open technique. The goal of this investigation is to evaluate the achievement of sustained weight loss without the need for re-operation. Because of the frequent need for re-operation to correct life-threatening complications or ineffectiveness of ASGB devices, present clinical data indicate that improvements to the implantable system and the operative technique need to be made and verified by long-term study. At this point in development, ASGB remains an investigative procedure that has not fulfilled the scientific requirements of an accepted surgical treatment for severe obesity.
396. Doherty C., Maher J., Heitshusen D.,
Late Outcome of Adjustable Gastric Banding for Surgical Treatment of Morbid Obesity,
(LAP-BAND® System Congress Presentation Abstract)

397. Doherty C., Maher J., Heitshusen D.,
Long-Term Data Indicate a Progressive Loss in Efficacy of Adjustable Silicone Gastric
Banding for the Surgical Treatment of Morbid Obesity,
(LAP-BAND® System Article)

BACKGROUND: Many short-term follow-up reports on the efficacy of the adjustable silicone gastric
band (ASGB) and its modification for laparoscopic insertion (Lap-Band) for the surgical treatment of
morbid obesity have been reported in the surgical literature. However, long-term studies are lacking.
METHODS: Between March 17, 1992, and January 7, 1997, 45 females and 17 males consecutively
entered this prospective study. Forty ASGB and 22 Lap-Band were implanted. Mean age was 34 years
(range 19-51); mean height was 171 cm (range 152-190); mean weight was 145 kg (range 100-214).
Weight loss and adverse events associated with the device were observed over time. RESULTS: There
was no operative mortality. Thirty intra-abdominal reoperations were necessary to correct
complications related to the implanted ASGB and the Lap-Band. In the ASGB cohort, the body mass
index (BMI) decreased from 50 to 36 over a 3-year period and then increased to 44 at 8 years after
operation. In the Lap-Band cohort the BMI decreased from 47 to 40 at 1 year and then increased to 43
at 6 years after operation. Twenty-seven implantable devices (18 ASGB, 9 Lap-Band) have been
removed to date. CONCLUSION: The results of this study do not support the use of ASGB devices
for the surgical treatment of morbid obesity. The Lap-Band is less effective than ASGB.
BACKGROUND: 4% of adolescents in the U.S.A. are obese, 80% of whom will become obese adults. Obesity in adolescence is associated with increased mortality and morbidity in adulthood. Is laparoscopic adjustable silicone gastric banding a safe and effective method of weight loss in morbidly obese adolescents? METHODS: Since 1996, data has been prospectively collected on all patients undergoing laparoscopic adjustable gastric banding (LAGB) by a single surgeon. Patients are reviewed at 6 and 12 weeks following surgery, then at 3 monthly intervals. Weight loss is measured in absolute terms, reduction in body mass index (BMI) and as percentage of excess weight loss. RESULTS: 17 patients with a median age of 17 (12 to 19) years underwent LAGB. Median follow-up was 25 (12 to 46) months. 2 complications occurred, 1 slipped band and 1 leaking port. BMI fell from a preoperative median of 44.7 to 30.2 kg/m² at 24 months following surgery, corresponding to a median loss of 35.6 kg or 59.3% of excess weight. 13 of 17 patients (76.5%) lost at least 50% of their excess weight, and 9 of 11 patients (81.8%) had a BMI < 35 kg/m² at 24 months following surgery. CONCLUSION: LAGB is a safe and effective method of weight loss in morbidly obese adolescents, at least in the medium term. Its role in preventing obesity and obesity-related disease in adulthood remains to be determined as part of our long-term study.
BACKGROUND: A hiatal hernia is present in up to 50% of patients undergoing bariatric surgery. It has been claimed that laparoscopic adjustable gastric banding (LAGB) can both improve and induce reflux symptoms. The effect of a simultaneous crural repair and gastric banding has not yet been reported. METHODS: Since 1999, all patients undergoing LAGB have a simultaneous crural repair if a hiatal hernia is present. Gastroesophageal reflux disease and dysphagia were assessed preoperatively and postoperatively using the modified DeMeester symptom-scoring system and the use of anti-reflux medication. RESULTS: 62 patients with a hiatal hernia have undergone simultaneous LAGB and crural repair, with a median follow up of 14 (3-38) months. There was no mortality, and complications occurred in 3 patients, namely pulmonary embolus, slippage requiring repositioning of the band and persistent dysphagia requiring band removal. 24 months following LAGB and crural repair, median BMI had fallen from 43 to 31 kg/m2 and median excess weight loss was 53%. Modified DeMeester symptom-score fell from a preoperative median of 3 (0-5) to a postoperative median of 0 (0-2) (P < 0.01, Mann Whitney U), and the number of patients on anti-reflux medication decreased from 44 to 6 (P < 0.01, Chi-squared). CONCLUSION: Crural repair in addition to LAGB does not increase the risk of slippage or dysphagia, significantly improves reflux symptoms and decreases the need for anti-reflux medication.
402. Dolan K., Bryant Fielding G.,
Treating Diabetes in the Morbidly Obese by Laparoscopic Gastric Banding,
(LAP-BAND® System Article)

BACKGROUND: Remission of diabetes following Roux-en-Y gastric bypass has been postulated to occur partly by bypass of the foregut. Laparoscopic adjustable gastric banding (LAGB) also reduces food intake but does not bypass the foregut, and its effects on diabetes have yet to be elucidated.

METHODS: Patients with diabetes or a history of diabetes and >6 months follow-up after LAGB were studied. Follow-up was conducted separately by a surgeon with regard to weight loss and potential morbidity and by a physician with regard to diabetic control. RESULTS: 14 patients had had gestational diabetes, and diabetes was controlled by diet in 25, oral hypoglycemics in 38 and insulin in 11 patients. Reduction in body mass index (BMI) and percentage of excess weight loss (%EWL) were similar in these 4 subgroups, with a median reduction in BMI of 11.7 kg/m(2) and %EWL of 51.1% at 24 months. 26 of 38 patients controlled with oral hypoglycemic medication and 6 of 11 insulin-dependent diabetics had all medication stopped at a median of 6.5 months following LAGB. Univariate and multivariate analyses identified %EWL > or = 30.6% at 6 months as the only significant predictor of remission of diabetes. Conclusion: Two-thirds of the diabetic patients have had remission of diabetes following LAGB. LAGB is an effective treatment for diabetes in obese patients.

403. Dolan K., Fielding G.,
Biliopancreatic diversion following failure of laparoscopic adjustable gastric banding,
(LAP-BAND® System Article)

Background: This study examines the failure rate with laparoscopic adjustable gastric banding (LAGB) and results of band removal with synchronous biliopancreatic diversion without (BPD) or with duodenal switch (BPDDS). Methods: Failure of LAGB was defined as removal of the band due to insufficient weight loss or a complication. Results: The band was removed in 85 of 1,439 patients (5.9%), most commonly for persistent dysphagia and recurrent slippage. The removal rate and slippage rate decreased from 10.8 and 14.2% to 2.8 and 1.3%, respectively, following introduction of the pars flaccida technique. Fifteen of 27 patients with previous open vertical banded gastroplasty (VBG) required removal of the band. Mean percentage excess weight loss 12 months following open BPD, laparoscopic BPD, open BPDDS, and laparoscopic BPDDS was 44, 37, 35, and 28%, respectively. Conclusion: LAGB fails in 6% of patients and removal of the band with synchronous BPD or BPDDS can be performed laparoscopically. Patients with failed primary VBG have a high failure rate with LAGB.
404. Dolan K., Hatzifotis M., Newbury L., Fielding G.,
A Comparison of Laparoscopic Adjustable Gastric Banding and Biliopancreatic Diversion in Superobesity,
(LAP-BAND® System Article)

BACKGROUND: Controversy exists regarding the best surgical treatment for superobesity (BMI >50 kg/m²), and a comparison of the 2 most commonly performed procedures in Europe, namely biliopancreatic diversion (BPD) and laparoscopic adjustable gastric banding (LAGB), has not yet been reported. METHODS: BPD has been performed in 134 morbidly obese patients since 1996, and as the primary bariatric procedure in 23 superobese patients. 23 sex-matched patients who most closely resembled the age and BMI of the 23 BPD patients were chosen from 1319 patients who had undergone LAGB since 1996. These groups were compared using appropriate statistical tests. RESULTS: BPD was performed laparoscopically in 12 patients. Median excess weight loss at 24 months was 64.4% following BPD and 48.4% following LAGB. Hospital stay and complication rate were significantly greater with BPD, although the majority of complications were related to the laparotomy wound in patients undergoing open BPD. Rate of resolution of obstructive sleep apnea, hypertension and diabetes mellitus following LAGB was similar to BPD. CONCLUSION: BPD results in significantly greater weight loss than LAGB in superobese patients, but is associated with a longer hospital stay and a higher complication rate in patients undergoing open BPD.

405. Dolan K., Fielding G.,
A comparison of laparoscopic adjustable gastric banding in adolescents and adults,
*Surgical Endoscopy, 18, 2004, 45-47.*
(LAP-BAND® System Article)

Background: Laparoscopic adjustable gastric banding (AGB) induces effective weight loss in adults, but its efficacy in adolescents has yet to be determined. Methods: Since 1996, data have been collected prospectively on all patients undergoing laparoscopic AGB procedures performed at our hospital by a single surgeon (G.F.). Patients <20 years old at surgery (adolescents) were compared with patients >20 years old (adults) who were matched for sex and body mass index (BMI). Results: Seventeen adolescents with a median age of 17 years (range, 12-19) and a BMI of 42.2 kg/m² (range, 30.3-70.5) were compared to 17 adults with a median age of 41 years (range, 23-70) and a BMI of 41.8 kg/m² (range, 30.1-71.5). There were no significant differences between the adolescents and the adults in complications or weight loss. The BMI dropped to 30.1 kg/m² (range, 22.6-39.4) in adolescents and 33.1 kg/m² (range, 28.4-41.3) in adults at 2-month follow-up. Conclusion: Laparoscopic AGB is as effective in adolescents as it is in adults.

406. Doldi S., Micheletto G., Lattuada E., Zappa M.,
Surgical Procedure for Morbid Obesity: Our 20 Years’ Experience,
*Obesity Surgery, 7, 1997, 294.*
(ASGB, LAP-BAND System® Congress Presentation Abstract, VBG Abstract)
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<td>407</td>
<td>Doldi S., Micheletto G., Lattuada E., Zappa M., Bona D.</td>
<td>Adjustable Gastric Banding in Morbidly Obese Patients</td>
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<td>408</td>
<td>Doldi S., Micheletto G., Lattuada E., Zappa M., Bona D., Sonvico U.</td>
<td>Adjustable Gastric Banding: 5 Year Experience</td>
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<td>409</td>
<td>Doldi S., Micheletto G., Zappa M., Lattuada E., Fiorvanti M., Docimo C., Lorenzo M.</td>
<td>Results of Lap-Band® System in Patients Converted from Vertical Banded Gastroplasty (VBG), Bilio-Pancreatic Diversion (BPD), Jejunoileal Bypass (JIBP) and Bilio-Intestinal Bypass (BIBP)</td>
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<td>410</td>
<td>Dukhno O, Peiser J, Levy I, Ovnat A</td>
<td>Iatrogenic Diaphragmatic Hernia Due to Laparoscopic Gastric Banding</td>
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A patient developed a huge diaphragmatic hernia following laparoscopic gastric banding. Almost the entire stomach was incarcerated within the left chest. Segmental necrosis of the greater curvature of the stomach necessitated partial gastrectomy. The postoperative course was uneventful. The etiology, diagnosis and treatment of this previously undescribed complication of laparoscopic gastric banding are addressed in relation to the present case.

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<td>411</td>
<td>Dugay G., Ren C.</td>
<td>Laparoscopic Adjustable Gastric Band (LAP-BAND) Adjustments in the Office is Feasible – the First 200 Cases</td>
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<td>412</td>
<td>Dugay G., Rosario G., Ren C.</td>
<td>An Effective Algorithm for Post-Operative LAP-BAND Adjustment Performed in the Office</td>
<td><em>ASBS Presentation</em></td>
<td>2004</td>
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<td>(LAP-BAND® System Congress Presentation Abstract)</td>
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BACKGROUND: In 1999, after having performed more than 2500 open bariatric surgery procedures, we began to conduct the laparoscopic adjustable silicone gastric banding (LASGB) procedure. The purpose of this report is to present the results of our first 250 operations using this technique.

PATIENTS AND METHODS: The 250 patients included 212 females and 38 males. The mean age was 36 years (range, 16-62). The mean BMI was 44 (range, 35-76). Patients were selected in accordance with standard criteria. The mean follow-up time was 18 months (range, 3-24). RESULTS: Two hundred and forty procedures were completed by laparoscopy; conversion to open surgery was required in 10 cases. The mean operating time was 50 min (range, 20-145). There was no mortality. Perioperative complications included two cases of gastric perforation. Late complications included 13 cases of band slippage (5%), of which three involved penetration to the stomach, five cases of port disconnection (2%), and four cases of port site infection (1.5%). The mean weight loss at 12 months was 70% of the original excess weight. CONCLUSION: Most patients prefer laparoscopy as the surgical technique in the treatment of morbid obesity. Our initial experience with 250 operations confirms that this approach is as good as open surgery. The long learning curve is steep, requiring at least 100 cases to guarantee low complication rates.

414. Dukkipati N., Kaza S., Watson J., Provost A.,
Laparoscopic adjustable gastric banding for the treatment of morbid obesity: a single institution experience with the LAP-BAND at 2-1/2 years,
(LAP-BAND® System Abstract)

415. Duncombe J, Fielding G, Bowden B,
Efficacy of Peripheral Clinics for Laparoscopic Adjustable Gastric Banding Patients,
Obesity Surgery, 16, 2006, 979.
(LAP-BAND® System Abstract)

416. Edmund J, Kennedy N, Lone M, Welbourn R,
Review of Anesthesia for the First 100 Cases in a New Bariatric Surgical Unit,
(LAP-BAND® System Abstract)

417. Edmund J, Welbourn R,
Do Gastric Band Patients Who Regularly Attend a Patient Support Group Meeting Lose More Weight?
Obesity Surgery, 16, 2006, 1027.
(LAP-BAND® System Abstract)
Morbid obesity is a refractory disease with serious co-morbidities. Laparoscopic adjustable gastric banding (LAGB) has generally been a safe and effective method for achieving sustained weight loss. We report a man who presented after LAGB with persistent wound infection at the access port-site, which failed conservative management. Diagnostic laparoscopy found an enterocutaneous fistula from herniated bowel (in a Richter's hernia) into which the catheter had eroded. The small bowel and fascial defect were repaired. The catheter was then clipped and divided, and the port was removed.

BACKGROUND: Surgical intervention represents the only treatment with long-term efficacy for morbid obesity. Laparoscopic adjustable gastric banding (LAGB) is a minimally invasive operation that is increasing in popularity. We hypothesized that attending support groups is beneficial to achieve optimal weight loss after LAGB. METHODS: 38 patients who underwent LAGB between Dec 2002 and Aug 2003 were studied retrospectively. Patients were divided into 2 groups; A included 28 patients who did not attend the support groups (surgery without support groups), and B included 10 patients who attended the support groups (surgery with support groups). Weight loss between the 2 groups was compared over a 1-year period. RESULTS: Patients who attended support groups achieved more weight loss (mean decrease in BMI = 9.7 +/- 1.9) than patients who did not attend support groups (mean decrease in BMI = 8.1 +/- 2.1), P = 0.0437 (unpaired t-test). CONCLUSION: Support groups appear to be an important adjunct for patients who undergo LAGB, to achieve and maintain improved weight loss.
Laparoscopic Gastric Banding: Technique of Laparoscopic Transgastric Band Retrieval
after Band Erosion,
(LAP-BAND® System Congress Presentation Abstract)

423. El-Dawlatly A., Al-Dohayan A., Favretti F., Samarkandi A.,
Anaesthesia for Morbidly Obese Patients: A Study of Haemodynamic Changes during
Bariatric Surgery,
(LAP-BAND® System Article)

**BACKGROUND AND AIMS:** Morbid obesity with body mass index (BMI) > 40 kg/m² requires
surgical correction if the diet program fails. Laparoscopic adjustable gastric banding (LAGB)
(bariatric surgery) is the standard surgical procedure. The haemodynamic effects of the typical
pneumoperitoneum had been studied but, the additional effects of morbid obesity and the
consequences of LAGB surgery had not. Therefore, we conducted this study to determine the
haemodynamic changes under anaesthesia during bariatric surgery.

**MATERIALS AND METHODS:** Under general anaesthesia, 7 patients (4 males) were studied. Their mean age was 36.2 yr (range 25-50 yr) and mean BMI was 49.7 kg/m² (range 39.3-67.3). Besides routine monitoring of vital signs, non
invasive cardiac output monitor (NICO, Novametrix, Wallingford, CT, USA) was used to monitor
cardiac output (CO), cardiac index (CI) and stroke volume (SV). All the haemodynamic variables
were taken at three phases: A) after induction of anaesthesia, B) during pneumoperitoneum and C) 
after gas deflation.

**RESULTS:** The mean HR and BP showed significant high values during phase B
compared to phase A. The mean values of CO were 7.2 +/- 1.1 and 9.06 +/- 2.6 L/min during phases A
and B respectively with significant differences. The mean values of SV were 91.1 +/- 12.3 and 123.2
+/- 42.6 ml during phases A and B respectively with significant differences. The mean values of CI
during phases A and B were 3.1 +/- 0.7 and 3.4 +/- 1.09 L/min/m² respectively with significant
differences. **CONCLUSIONS:** We have reported high CO and CI during pneumoperitoneum, which
may be due to increased heart rate induced by sympathetic stimulation.

424. Elias B., van Vyve E., Staudt J-P.,
LASGB: Pouch Dilation-A Major Complication. How to Avoid It? Change the Band Type
or the Technical Approach?
*Obesity Surgery*, 10, 2000, 327.
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Adjustable gastric banding results in good weight loss. Nevertheless, some complications may occur, including slipping of the stomach through the band with pouch dilatation. Initially, the Belachew and Cadiere technique was done with the Lap-Band. Afterwards, to minimize proximal gastric pouch dilatation (GPD), we performed the operation using the Swedish route with the same band (Inamed). METHODS: In a retrospective study, 139 consecutive adjustable gastric bands were placed laparoscopically between December 1994 and March 2000. Mean age was 37 years. 10.3% were male. Mean BMI was 39.7. Until April 1999 (Group I, n = 104), the band was introduced according to Belachew’s and Cadiere’s technique (intragastric balloon calibration technique). Starting May 1999 (Group II, n = 35), the Lap-band was introduced using the Swedish route. This technique consists of localizing the right and left crus posteriorly. A tunnel is created behind the cardia and right above the crus after transsection of the gastrophrenic ligament. The Lap-band is introduced as well as an anterior intragastric calibrating balloon with an air chamber at its distal end, making a pouch 5 to 10 cc. RESULTS: In group I, 15.4% had GPD needing re-hospitalization. Of these, 75% required a re-operation. In group II, no slipping nor pouch dilatation has been reported so far. CONCLUSION: The Swedish route appears to be the key to avoiding GPD. By introducing an intragastric calibrating balloon with a pouch of 5 to 10 cc anteriorly, the band is placed just below the cardia, and no pouch dilatation has been found. The important factor may not be the type of band but rather the technical approach.
429. Elmore U., Perrotta N., Pecchia A., Rizzello M., Boru C., Greco F., Basso M., Paone E.,
Cuzzolaro M., Bacci V., Genco A., Silecchia G., Basso N.,
Causes of Reoperations after Laparoscopic Adjustable Gastric Band (LASGB),
*Obesity Surgery*, 13, 2003, 554.
(LAP-BAND® System Congress Presentation Abstract)

Bockhorn H.,
Aplicación de la Bandeleta Gástrica Adjustable (LAP-BAND) por Videolaparoscopia en el Tratamiento de la Obesidad Mórbida. Resultados Preliminares tras 407 Intervenciones,
(LAP-BAND® System Article)

No abstract available

431. Engert R., Lonroth H., Weiner S., Weiner R.,
Revisional Surgery for Morbid Obesity – Laparoscopic Conversion To Gastric Bypass,
(LAP-BAND® System Congress Presentation Abstract, SAGB, VBG and GBP Abstract)

432. Erez O., Maymon E., Mazor M.,
Acute gastric ulcer perforation in a 35 weeks’ nulliparous patient with gastric banding,
(LAP-BAND® System Article)

We present a case of a primiparous patient at 35 weeks’ gestation who had had laparoscopic gastric banding, and who presented to labor and delivery with protracted vomiting followed by an acute abdomen and fetal distress. An emergency surgery revealed acute gastric ulcer perforation. This complication, although rare, should be considered.

433. Ersoy E., Koksal H., Ege B.,
Laparoscopic Gastric Banding for Morbid Obesity in a Patient with Situs Inversus Totalis,
(LAP-BAND® System Article)

We discuss the operative challenges posed by the advanced laparoscopic approach for a patient with situs inversus totalis. The patient was a morbidly obese woman with multiple co-morbidities related to her weight. The modifications in the surgical technique include the insertion of trocars according to the mirror image anatomy of the intra-abdominal organs under laparoscopic visualization. We suggest preoperative abdominal ultrasound in order to diagnose both gallbladder stones and also the reverse location of intra-abdominal organs that is rarely seen. A laparoscopic gastric banding, not a contradiction for situs inversus totalis, was performed successfully.
BACKGROUND: This prospective study evaluated the effectiveness and safety of laparoscopic adjustable gastric banding (LAGB) for morbid obesity. METHODS: Ninety-five consecutive patients (89 female; median age 38 years, range 19 to 69) underwent LAGB for morbid obesity. Median weight and body mass index were 123.2 (88.9 to 228.6) kg and 45 (32.7-76.4) kg/m(2) respectively. Significant coexistent disease was present in 52 (55%) patients. RESULTS: Median excess weight loss was 53% (range 96.9% to 12.1%) and 62% (range 107.5% to 32.3%) at 1 and 2 years respectively (P <0.001). Median operative time was 90 (range 35 to 285) minutes and inpatient stay 2 (range 1 to 10) days. Early complications were seen in 17 (18%) patients most commonly nausea/vomiting or dysphagia. Late complications were seen in 25 (26.3%) patients, most frequently vomiting or reflux due to band slippage or pouch dilatation. There was 1 (1%) operative death. CONCLUSIONS: LAGB is an effective operation for morbid obesity that results in equivalent weight loss to open surgical procedures.
BACKGROUND: Laparoscopic adjustable gastric banding is a safe and effective treatment method for morbid obesity. Injection port dislocation, tube perforation and access port infection are generally classified among the minor complications, although they can require a reoperation at the port-site or even at the level of the band which may have to be removed. We designed a technique to fix the port that can avoid unnecessary complications. METHODS: The port is sutured onto a polyprophlene mesh, which is then cut into shape and attached to the rectus fascia in the left hypochondrium with a Tacker stapling device. From February 2000 to January 2001, 25 patients (BMI 35-60) were operated using this technique. RESULTS: No injection port dislocation, tube perforation or access port infection has been found in these patients. CONCLUSION: With the larger surface area by which the port is attached to the fascia, a stable position of the port is obtained and dislocation avoided. Multiple failed attempts at port access, with resulting risk of infection, are avoided. Due to port stability, risk of incidental tube perforation is reduced. Moreover, a considerable gain of time is obtained compared with the classical suturing of the port.

BACKGROUND: the authors describe a laparoscopic technique for the positioning of stoma adjustable silicone gastric banding (SASGB), which respects the main steps of the open procedure. METHODS: (1) patient position: supine with thighs abducted and 30 degrees reverse Trendelenburg; (2) Four 10 mm trocars (supra-umbilical, sub-xiphoid, right upper quadrant, left upper quadrant) and an 18 mm trocar (left subcostal); (3) exposure of the subcardial area; (4) measurement of the pouch; (5) dissection of the lesser and greater curvatures; (6) retrogastric tunnel; (7) introduction and placement of the band; (8) band closure and stoma calibration; (9) retention sutures. RESULTS: results obtained in a first (1992) series of five patients who underwent the laparoscopic application of the regular SASGB and results of a second series (1993-1994) of seven patients in whom the new LAP-ASGB was utilized are reported. CONCLUSION: this new approach can represent a major achievement in bariatric surgery, as it combines the minimal invasiveness of the laparoscopic approach with the reversibility of SASGB.
BACKGROUND: Kuzmak’s Adjustable Silicone Gastric Banding (ASGB) is the least invasive operation available for morbid obesity, and it is one of the more effective. Based on the know-how gained from performing more than 250 ‘open’ procedures, we have developed an original laparoscopic technique, whose main steps are pouch measurement, limited dissection along the lesser and the greater curvature and the application of the retention sutures. METHODS: From September 1993 through October 1994, 30 morbidly obese patients underwent laparoscopic ASGB. RESULTS: Mean operative time was 2 h and the postoperative stay 2-3 days. Only one major perioperative complication (stomach slippage) was observed. The weight loss achieved, reported as a variation of Body Weight, Body Mass Index, per cent Ideal Body Weight and per cent Excess Weight Loss was similar to that obtained with the open procedure. CONCLUSION: This new approach is a major achievement in bariatric surgery, because it combines the minimal invasiveness of laparoscopy with the reversibility and adjustability of ASGB.

BACKGROUND: The laparoscopic application of LAP-BAND is gaining widespread acceptance as a gastric restrictive procedure. At the same time the reported morbidities (i.e., gastric perforation, stomach and/or band slippage) are cause for some concern. METHODS: From September 1993 until May 1997, 260 patients underwent LAP-BAND at the Department of Surgery at the University of Padova, Italy. RESULTS: The mortality rate was zero and the morbidity rate requiring reoperation was 3.4% (stomach slippage, gastric perforation, erosion). In order to avoid complications the key points of the technique are reviewed: (1) reference points for dissection (equator of the balloon, left crus); (2) retrogastric tunnel within the layers of the phrenogastric ligament; (3) embedment of the band; (4) proper outlet calibration; and (5) retention sutures. CONCLUSIONS: Attention to technical details is of paramount importance for a safe, standardized and effective operation.
Severe obesity is a chronic disease requiring continuing care. Optimal outcomes of laparoscopic adjustable gastric banding using the LAP-BAND (INAMED Health, Santa Barbara, CA) depend on accurate placement of the band and excellent postplacement care, which requires a long-term commitment from both the patient and the bariatric surgical team. Adjustability is a key feature of the LAP-BAND system, and knowing when and how much to adjust requires careful judgment. Two methods of approaching the art of adjustment are described: the office adjustment and the radiologic adjustment. A properly placed and adjusted band produces prolonged satiety after a small meal, facilitating a major reduction in dietary intake leading to weight loss. Healthy food choices, increased activity and exercise, and the behavioral changes necessary to achieve these are essential elements of all weight loss programs. The LAP-BAND program is no exception. Follow-up requires monitoring of the co-morbidities of obesity and metabolic and nutritional status. Communication and collaboration with the patient’s primary care provider are important. All of the elements above are necessary to provide the comprehensive care that contributes to optimal patient outcomes.
BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) with the Lap-Band has been our first choice operation for morbid obesity since September 1993. Results in terms of complications and weight loss are analyzed. METHODS: 830 consecutive patients (F 77.9%) underwent LAGB. Initial body weight was 127.9 +/- SD 23.9 kg, and body mass index (BMI) was 46.4 +/- 7.2 kg/m2. Mean age was 37.9 (15-65). Steps in LAGB were: 1) establishment of reference points for dissection (equator of the balloon inflated with 25 cc air and left crus); 2) creation of a retrogastric tunnel above the bursa omentalisis; 3) creation of “virtual” pouch; 4) embedding the band. RESULTS: Mortality was 0, conversion 2.7%, and follow-up 97%. Major complications requiring reoperation developed in 3.9% (36 patients). Early complications were 1 gastric perforation (requiring band removal) and 1 gastric slippage (requiring repositioning). Late complications included 17 stomach slippages (treated by band repositioning in 12 and band removal in 5), 9 malpositions (all treated by band repositioning), 4 gastric erosions by the band (all treated by band removal), 3 psychological intolerance (requiring band removal), and 1 HIV positive (band removed). A minor complication requiring reoperation in 91 patients (11%) was reservoir leakage. 20% of patients who had % excess weight loss < 30 had lost compliance to dietetic, psychological and surgical advice. BMI declined significantly from the initial 46.4 +/- 7.2 to 37.3 +/- 6.8 at 1 year, 36.4 +/- 6.9 at 2 years, 36.8 +/- 7.0 at 3 years, and 36.4 +/- 7.8 at 5 years. CONCLUSION: LAGB is a relatively safe and effective procedure.
Morbid obesity, with its accompanying human and monetary costs, is a serious and growing health problem worldwide. Surgical treatments are recognized as being effective, but until recently, the available surgical options entailed invasive techniques that permanently altered the gastrointestinal tract. In June 2001, the US Food and Drug Administration approved an adjustable gastric banding system that can be implanted laparoscopically for the treatment of morbid obesity. This article discusses laparoscopic adjustable gastric banding, including patient selection and evaluation, perioperative care, and the importance of a team approach to patient management and follow-up care.
457. Ferraro D.,
Management of the Bariatric Surgery Patient,
(LAP-BAND® System Article)

_No abstract available_

458. Ferreira A., Lima L., Oliveira M., Gouveia A., Alves O., de Sousa J.,
Mid-Term Results of Laparoscopic Adjustable Gastric Banding for the Treatment of
Morbid Obesity,
_Obesity Surgery, 14, 2004, 922._
(LAP-BAND® System Congress Presentation Abstract)

459. Ferreira A., Matos Lima L., Oliveira M., Pimenta M., Calheiros Lobo J., Pimenta T., Gouveia
A., Pimenta A., Cadoso de Oliveira M., Ramos I.,
Biliary stone disease after laparoscopic gastric banding,
_Obesity Surgery, 15, 2005, 984._
(LAP-BAND® System Abstract)

460. Fielding G.,
Laparoscopic Gastric Banding for Morbid Obesity – Results of 182
Consecutive Cases,
_SAGES, Seattle, Washington, April 4, 1998._
(LAP-BAND® System Congress Presentation Abstract)

461. Fielding G.,
Laparoscopic Adjustable Gastric Banding for Obese Patients Over 190 kg,
_Obesity Surgery, 9, 1999, 327._
(LAP-BAND® System Congress Presentation Abstract)

462. Fielding G.,
Laparoscopic Banding in Patients, Who Have Had Previous Open Weight Reduction
Surgery,
_Obesity Surgery, 9, 1999, 329._
(LAP-BAND® System Congress Presentation Abstract)

463. Fielding G.,
Gastric Obstruction Due to Slipped Band in Laparoscopic Gastric Banding,
_Obesity Surgery, 9, 1999, 340._
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Morbid obesity occurs in 2-5% of the population of Europe, Australia, and the United States and is becoming more common. Open surgical techniques, such as vertical banded gastroplasty and other divisional procedures in the stomach, have led to long-term weight reduction as well as an amelioration of the attendant medical problems in approximately two-thirds of patients.

MATERIALS AND METHODS: A total of 335 patients with a median age of 41 years underwent gastric banding. We emphasized the need for long-term maintenance and follow-up. The indications for surgery comprised a body mass index >35, a stated desire to undergo the procedure, and a full understanding of all possible complications.

RESULTS: All patients have needed band adjustments of 1-4 ml over the course of their follow-up. No patient had increased his or her weight during the follow-up, and only three patients have not enjoyed sustained weight loss.

CONCLUSIONS: Laparoscopic gastric banding has much to recommend it. Certainly in the short term, its results in terms of effectiveness of weight loss are at least as good as those of any open procedure. Longer follow-up will show whether this weight loss is maintainable. The procedure is technically demanding, and the major prerequisite of satisfactory performance of this surgery is laparoscopic experience.

465. Fielding G.,
Reduction in Incidence of Gastric Herniation with LAP-BAND® Experience in 620 Cases,
Obesity Surgery, 10, 2000, 136.
(LAP-BAND® System Congress Presentation Abstract)

466. Fielding G.,
Laparoscopic Gastric Banding in Patients Over 190 kg- Experience in 26 Cases,
Obesity Surgery, 10, 2000, 143.
(LAP-BAND® System Congress Presentation Abstract)

467. Fielding G.,
LAP-BAND® Experience with 620 Cases over Forty-Five Months,
Obesity Surgery, 10, 2000, 143.
(LAP-BAND® System Congress Presentation Abstract)

468. Fielding G.,
Integrated Surgical Approach to Obesity Surgery,
(LAP-BAND® System Congress Presentation Abstract)
The early promise of laparoscopic adjustable gastric banding was tempered by reports of high rates of gastric herniation or prolapse. These complications are a function of the operative technique used early on. At the time, in the early 1990s, the LAP-BAND device (INAMED Health, Santa Barbara, CA) was placed lower on the stomach, near the first short gastric vessel. The required perigastric dissection was difficult and variable in its extent, depending on the width of the stomach and where the surgeon began the dissection. To combat these problems, a new surgical method for placement of the band has evolved. Called the pars flaccida technique, it emphasizes minimal dissection and placement of the LAP-BAND out of the lesser sac. This leads to a higher position of the band, away from the body of the stomach. The technique serves to make band placement simple, safe, reproducible, and easily teachable, as well as to decrease the rate of gastric herniation or prolapse. Keeping the band out of the lesser sac, away from the peristalsing stomach, minimizing dissection of the attachments to the stomach, paying strict attention to gastric-to-gastric suturing, and leaving all fluid out of the band until at least 6 weeks after surgery appear to be the most important factors in reducing the incidence of this complication.

473. Fielding G.,
Laparoscopic Adjustable Gastric Banding for Massive Super Obesity,
*Obesity Surgery, 12, 2002, 203.*
(LAP-BAND® System Congress Presentation Abstract)
474. Fielding G.,
   LAP-BAND® After Previous VBG,
   *Obesity Surgery*, 12, 2002, 212.
   (LAP-BAND® System Congress Presentation Abstract)

475. Fielding G.,
   Failed Weight Loss after Bilio-Pancreatic Diversion Following Previous Laparoscopic
   Adjustable Gastric Banding,
   *Obesity Surgery*, 13, 2003, 221.
   (LAP-BAND® System Congress Presentation Abstract)

476. Fielding G.,
   Laparoscopic Adjustable Gastric Banding for Massive Super Obesity,
   (LAP-BAND® System Congress Presentation Abstract)

477. Fielding G.,
   BPD as Revision for Laparoscopic Adjustable Gastric Band,
   (LAP-BAND® System Congress Presentation Abstract)

478. Fielding G.,
   Laparoscopic Banding with Hiatus Hernia Repair – 3 Cases,
   *Obesity Surgery*, 13, 2003, 517.
   (LAP-BAND® System Congress Presentation Abstract)

479. Fielding G.,
   Laparoscopic Removal of Lap-Band® and Laparoscopic Biliopancreatic Diversion,
   *Obesity Surgery*, 13, 2003, 539.
   (LAP-BAND® System Congress Presentation Abstract)

480. Fielding G., Finch R., Dunconbe J., Dolan K.,
   Crural Repair with Laparoscopic Adjustable Gastric Banding for Symptomatic
   Gastroesophageal Reflux in the Morbidly Obese,
   *Obesity Surgery*, 13, 2003, 556.
   (LAP-BAND® System Congress Presentation Abstract)

481. Fielding G., Dolan K., Bryan R.,
   Treating Diabetes in the Morbidly Obese with Laparoscopic Gastric Banding: Is Weight
   Loss Important?
   *Obesity Surgery*, 13, 2003, 556.
   (LAP-BAND® System Congress Presentation Abstract)
Surgery for massive super obesity is a formidable challenge. No existing open or laparoscopic procedure reduces BMI below 30 from a starting point above 55. Laparoscopic adjustable gastric banding has been used to treat 76 massive super obese patients with a BMI > 60 kgs/m2. Median weight was 193 kgs +/-34.7 kgs (154-335 kgs). Five patients had a BMI > 100 kgs/m2. There was neither mortality nor pulmonary emboli. hospital stay was 3 days (1-6 days). Excess weight loss was 46.69 +/-10.5 at 1 year; 59.14 +/- 11.7% at 3 years and 61 +/- 15.1% at 5 years. At 2 years, 84% of the patients had greater than 50% excess weight loss and this was maintained at 3, 4, and 5 years. BMI fell from 69 +/- 6.2 to 49 +/- 7.73 at 1 year to 37 +/- 4.45 at 3 years and this was maintained at 4 and 5 years. BMI in 13 patients with > 5 year follow up was 35.09 +/- 53 kgs/m2 (27-44). Weight loss with laparoscopic adjustable gastric banding in this group of massive super obese patients has been similar to all other surgical techniques with reduction of BMI from 69 to 33 kgs/m2 at 3 years. The relative safety of the Lapband avoids bowel surgery in these very big patients, suggesting that laparoscopic adjustable gastric banding is a valid surgical approach to these difficult patients.

No abstract available
486. Fielding G., Duncombe J.,
Laparoscopic Adjustable Gastric Banding in Teenagers – Results at Three Years,
ASBS Presentation, 2004, 41.
(LAP-BAND® System Congress Presentation Abstract)

487. Fielding G., Duncombe J.,
This Goes with That – Combining LAP-BAND and Duodenal Switch in Bariatric Revision Procedures,
ASBS Presentation, 2004, 41.
(LAP-BAND® System Congress Presentation Abstract)

488. Fielding G., Duncombe J.,
Step by Step Technique for Laparoscopic Removal of the LAP-BAND (video),
ASBS Presentation, 2004, 63.
(LAP-BAND® System Congress Presentation Abstract)

489. Fielding G.,
Step by Step Technique for Laparoscopic Removal of the LAP-BAND,
(LAP-BAND® System Congress Presentation Abstract)

490. Fielding G.,
Experience with Two 2,200 LAP-BANDs – Evolution of a Technique,
(LAP-BAND® System Congress Presentation Abstract)

491. Fielding G.,
The LAP-BAND – Ballad for the Thin Man,
(LAP-BAND® System Congress Presentation Abstract)

492. Fielding G.,
Hiatal crural repair as management of severe reflux following laparoscopic adjustable gastric banding,
(LAP-BAND® System Abstract)
493. Fielding GA, Ren CJ,
Laparoscopic adjustable gastric band,
(LAP-BAND® System Article)

Only a fraction of morbidly obese patients have come forward for bariatric surgery. This article confirms that the laparoscopic adjustable gastric band (LAGB) is a safe, effective, primary weight-loss operation for morbidly obese patients. The LAGB offers a simple, genuinely minimally invasive approach, with the potential to be attractive to many more patients. The key questions are whether it is effective in the longterm and whether it is safe. The midterm data confirm that, so far, LAGB is living up to its early promise as an effective tool. LAGB surgery is safe, and the change to the pars-flaccida approach will lead to even higher patient satisfaction and lower incidence of band removal.

494. Fielding GA, Duncombe J.,
Laparoscopic adjustable gastric banding in severely obese adolescents,
*Surgery for Obesity and Related Diseases, 2005, 399-407.*
(LAP-BAND® System Article)

No abstract available

495. Fielding GA, Duncombe J.,
Clinical and Radiological Follow-up of Laparoscopic Adjustable Gastric Bands, 1998 and 2000: A Comparison of Two Techniques,
*Obesity Surgery, 15, 2005, 634-640.*
(LAP-BAND® System Article)

BACKGROUND: Concerns still exist about the long-term effectiveness and rate of retention of the laparoscopic adjustable gastric band (LAGB). Furthermore, esophageal dilatation has been suggested as a long-term complication for LAGB. We therefore sought to objectively analyze our follow-up results in patients with LAGB performed in 1998 by perigastric technique and 2000 by pars flaccida technique. We also offered patients for 1998 a barium esophagram to assess dilatation. METHODS: Data on all 2,300 LAGBs performed since 1996 have been prospectively collected in LapBase. This data was accessed for 1998 and 2000, for follow-up complication, band removal, weight loss and comorbidity reduction. Patients were offered barium esophagrams. RESULTS: 123 patients (mean weight 127 kg, mean BMI 44.5 kg/m2) had LAGB in 1998, and 162 patients (mean weight 123 kg, mean BMI 44) had LAGB in 2000. Follow-up was a mean 67 months in 88% for 1998 and 94% at 34 months for 2000. Mean %EWL for 1998 was 51.2% with mean BMI 31.9. Slippage occurred in 9.5% in 1998 compared to 4.3% in 2000 (P<0.01). 20 of 23 diabetics are off all treatment. 1 of 34 patients had esophageal dilatation on barium esophagram, which resolved on band deflation. CONCLUSION: LAGB is a safe and effective at midterm follow-up. Less slippage occurred after the pars flaccida technique. No evidence of permanent esophageal dilatation was found on barium studies.
496. Fielding GA, Pattyn P., Horber F., Steffen R., Potoczna N.,
Bariatric surgery using the Swedish Adjustable Gastric Band (SAGB) or LAP-BAND (LB):
A systematic review of the literature and meta-analysis,
(LAP-BAND® System Abstract)

497. Fielding G, Ren C, Nadler E, Youn A,
An Early Cohort of 60 Morbidly Obese US Teenagers Undergoing Laparoscopic
Adjustable Gastric Banding,
Surgery for Obesity and Related Diseases, 2, 2006, 306.
(LAP-BAND® System Abstract)

498. Fielding G, Ren C, Harris M,
Repeat Laparoscopic Adjustable Gastric Band (LAGB) after Previous Band Erosion and
Laparoscopic Band Removal and Gastric Repair,
Obesity Surgery, 16, 2006, 976.
(LAP-BAND® System Abstract)

499. Finigan K., Martin L., Robinson A., Roth N.,
Improvement in Quality of Life One Year after Gastric LAP-BAND®,
(LAP-BAND® System Congress Presentation Abstract)

500. Finigan K., Robinson A., Larrieu J., Ayad M., De Blanc C., Martin L.,
Do Indigent Patients Have Worse Outcomes After Gastric LAP-BAND®?
Obesity Surgery, 8, 1998, 163.
(LAP-BAND® System Congress Presentation Abstract)
OBJECTIVES: To estimate the effect of price, sociodemographic factors, and health on the demand for bariatric surgery among eligible individuals with private health insurance, in order to enable policy makers and insurers to make more informed decisions concerning access to care for bariatric surgery. 

STUDY DESIGN: We conducted an Internet-based contingent valuation survey of 1802 obese persons eligible for bariatric surgery but who had not undergone the procedure. 

METHODS: We used multivariate regression analysis to separately estimate the likelihood of having gastric bypass and gastric banding surgery at different out-of-pocket costs. We combined the results with estimates of the privately insured bariatric surgery-eligible population from the National Health and Nutrition Examination Survey, 1999-2002, to estimate aggregate demand. 

RESULTS: Out-of-pocket cost was negatively and highly significantly related to the self-reported likelihood of having surgery. Persons with higher incomes and younger persons also reported a significantly higher likelihood of surgery. No effect was found for body mass index or for most comorbidities. We estimate that about 150 000 bariatric operations per year would be demanded by those with private health insurance at an out-of-pocket cost of USD 25 000. At USD 5000, we estimate a demand of 250 000 bariatric operations per year. 

CONCLUSIONS: Price is significantly and negatively related to the demand for bariatric surgery. At an out-of-pocket cost of USD 5000, about 2.2% of the bariatric surgery-eligible population would strongly consider surgery.
Weight loss programs, diets, and drug therapy have not shown long-term effectiveness in treating morbid obesity. A 1992 statement from the National Institutes of Health Consensus Development Conference affirmed the superiority of surgical over nonsurgical approaches to this condition. Bariatric surgical procedures work in 1 of 2 ways: by restricting a patient's ability to eat (restrictive procedures) or by interfering with ingested nutrient absorption (malabsorptive procedures). Many of these procedures can be performed by a laparoscopic approach, which has been shown to reduce operative morbidity. In the United States, the primary operative choice for morbidly obese patients has recently shifted from vertical banded gastroplasty (VBG) to the Roux-en-Y gastric bypass (RYGBP). VBG, a purely restrictive procedure, has fallen into disfavor because of inadequate long-term weight loss. RYGBP combines restriction and malabsorption principles, and has been shown to induce greater weight loss than VBG. Other procedures currently being offered include laparoscopic adjustable gastric banding; biliopancreatic diversion (BPD), including the duodenal switch (BPD-DS) variation; and distal gastric bypass (DGBP). Laparoscopic adjustable gastric banding with the LAP-BAND system (INAMED Health, Santa Barbara, CA), a restrictive procedure involving placement of a silicone band around the upper stomach, was introduced in the early 1990s and approved by the US Food and Drug Administration for use in the United States in June 2001. Outside the United States, LAP-BAND surgery is the most commonly performed operation for severe obesity. The BPD, BPD-DS, and DGBP are all malabsorptive procedures offered primarily by laparotomy. They have been shown to induce good long-term weight loss but have a higher rate of adverse nutritional complications. Many safe and effective surgical options for severe obesity are available. More scientific appraisals comparing different procedures and open and laparoscopic approaches are needed.

503. Fisher B.,
Letter to the Editor,
Balance in Reporting LAP-BAND® in the USA,
(LAP-BAND® System - Other)

504. Fisher B.,
Comparison of Recovery Time after Laparoscopic and Open RYGB and Laparoscopic Adjustable Banding,
*Obesity Surgery*, 13, 2003, 199.
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Laparoscopy is believed to reduce recovery time and patient discomfort following bariatric surgical operations. This study tests that hypothesis. METHODS: 60 randomly selected bariatric surgery patients, consisting of 20 open Roux-en-Y gastric bypass (RYGBP), 19 lap RYGBP, and 21 laparoscopic adjustable banding, were studied. Outcome measures including hospital length of stay (LOS), days to return to normal activity, days to surgical recovery, and pain medication usage were defined by the patients' subjective responses to a retrospective questionnaire. Overall differences among the three surgeries were first determined using the Kruskal-Wallis test, and then individual comparisons were made between each of the three pairs of operations using a Wilcoxon rank-sum test when a significant difference existed. RESULTS: Patients reported an average LOS of 3.45 days following open RYGBP, 2.47 days following lap RYGBP, and 1.33 days following Lap-Band surgery. There was little difference in return to normal activity, with open RYGBP patients reporting a 17.55 day delay in return to normal activity, and lap RYGBP reporting an 18.16 day delay. In contrast, Lap-Band patients responded that the delay was only 7.24 days. Days to recovery were reported to be 29.05 for open RYGBP patients, 21.68 for lap RYGBP patients and 15.81 for Lap-Band patients. Hospital days (P=0.0002), days to normal activity (P=0.0115), and days to recovery (P<0.0001) differed significantly among the surgery types. Lap and open RYGBP did not differ significantly regarding days to resumption of normal activities. Open RYGBP and banding differed significantly regarding days to recovery (P <0.001). CONCLUSIONS: Lap-Band patients returned to normal activity levels earlier than gastric bypass patient's irrespective of approach. Lap-Band patients also reported recovering from surgery significantly sooner than open RYGBP patients. Perceived differences in recovery time between open and laparoscopic RYGBP patients did not affect their time to resumption of normal activity.
508. Foletto M., De Marchi F., Bernante P., Busetto L., Pomerri F.,
Late gastric pouch necrosis after LAP-BAND, treated by an individualized conservative
approach,
*Obesity Surgery, 15, 2005, 1487-1490.*
(LAP-BAND® System Article)

No abstract available

Pregnancy Outcomes after Laparoscopic Adjustable Gastric Banding for Morbid Obesity,
*Surgery for Obesity and Related Diseases, 2, 2006, 325.*
(LAP-BAND® System Abstract)

Redefining the Role of Radiology in the Postoperative Management of Laparoscopic
Adjustable Gastric Banding (LAGB),
*Obesity Surgery, 16, 2006, 1024,*
(LAP-BAND® System Abstract)

Pregnancy Outcomes after Laparoscopic Gastric Banding for Morbid Obesity,
*Obesity Surgery, 16, 2006, 1030.*
(LAP-BAND® System Abstract)

512. Folli F, Perego L, Cardellini M, Andreozzi F, Risasoli C, Pontiroli G, Hribal M,
Impact of Common Polymorphisms in Candidate Genes on Weight Loss of Morbidly
Obese Subjects (Grade III, WHO) after Laparoscopic Adjustable Gastric Banding (LAGB),
*Diabetes, Volume 54, Supplement 1, 2005, A436-A437.*
(LAP-BAND® System Article)

No abstract available
Introduction: Laparoscopic adjustable gastric banding (LAGB) has been used for the treatment of obesity, being shown in western populations to be a safe and effective option. We present the results of our experience in the use of LAGB in the treatment of obesity. Methods: A retrospective review of all patients who underwent LAGB from February 1999 to June 2004 was made from a prospectively collected database. Pre-operative comorbidities, height, weight and body mass index (BMI) were recorded and compared with post-operative results. Operative times, length of stay and complications were also noted. Results: 38 consecutive patients underwent LAGB. The 16 male and 22 female patients had a mean age of 37.6 years (range 19 to 62 years) and a mean BMI of 42.7kg per square metre (range 28.8 to 78.4kg per square metre). Nine were done utilising the perigastric approach, and the other 29 with the pars flaccida approach. There were no open conversions. Overall peri-operative morbidity was encountered in two (5.3 percent) patients, with a minor liver laceration and a capsular splenic laceration in separate patients. There were no post-operative complications. One (2.7 percent) patient had the band removed at 29 months post-operatively on request. There were no mortalities. Mean follow-up period was 13 months (range one to 56 months). Mean BMI decreased to 40.7, 38.7, 37.4, 34.1 and 32.9kg per square metre, respectively, at one week, one, six, 12 and 18 months post-operatively. Conclusion: LAGB is a feasible modality in the multifaceted approach to treatment of morbid obesity. The results from our follow-up are comparable to larger series in western populations, with a similar safety profile.
514. Forestieri P., Meucci L., De Luca M., Formato A., De Werra C., Chiacchio C.,
Two Years of Practice in Adjustable Silicone Gastric Banding (LAP-BAND): Evaluation of Variations of Body Mass Index, Percentage Ideal Body Weight and Percentage Excess Body Weight,
(LAP-BAND® System Article)

BACKGROUND: In the treatment of morbid obesity, surgery had been the only method of obtaining a good and enduring weight loss. Although the procedure of choice is still a matter of debate, among gastric restriction procedures LAP-BAND has become our first choice. METHODS: We report the results from 62 morbidly obese patients operated in the period October 1994-December 1996. Their characteristics were: mean age 35.6 years, mean body weight 130.6 kg, mean height 162.3 cm, mean body mass index (BMI) 49.9 kg/m², mean percentage ideal body weight (%IBW) 215.7 and mean excess weight (EW) 69.57 kg. RESULTS: Twenty-four months after surgery we found a mean BMI of 39.3, a mean %IBW of 168.6 and a mean % EW loss of 88.5. We removed the band in two patients: one after 9 months because of stoma stenosis and pouch enlargement in a woman who had been lost at follow-up, and the other for gastric slippage occurring after 18 months due to incorrect fixation of the band. CONCLUSION: Our results led us to consider LAP-BAND as the surgical approach for severe obesity among those patients selected for gastric restriction; indeed, it was very safe as well as effective and was rarely followed by complications.

515. Forestieri P., De Luca M., Cappuccio M., De Werra C., Formisano C., Loffredo A., Petre C.,
Laparoscopic Adjustable Silicone Gastric Banding Hand Assisted (LASGBHA) – Forestieri’s Operation,
(LAP-BAND® System Congress Presentation Abstract)

516. Fox R., Fox K., Srikanth M.,
A Comparison of Weight Loss and Late Complications of LAP-BAND® System and Swedish Band in a North American Population,
*Asian Journal of Surgery*, 26, 1, 2003
(LAP-BAND® System and SAGB Abstract / Article)

517. Fox R., Fox K., Srikanth M.,
The LAP-BAND® System in a North American Population,
(LAP-BAND® System Article)

No abstract available
Morbid obesity occurs in 2-5% of the population in Western countries. Laparoscopic adjustable silicone gastric banding is a minimally invasive, adjustable and reversible procedure for the treatment of morbid obesity. The lap-band system was evaluated retrospectively in a series of 222 patients. Postoperative outcome and weight loss patterns at up to 8 years follow-up are presented. The most frequent late complications were a leak between the port and the catheter, which occurred in 21 patients (9.4%) and total and irreversible food intolerance due to pouch dilation and/or slippage, which occurred in 13 patients (5.8%). The postoperative BMI reductions are successful and stable after a follow-up of up to 96 months. The lap-band system seems an effective procedure for achieving appreciable and stable weight loss up to 8 years of follow-up and the complications and re-operation rates are acceptable. In 81% of the cases also, the patient is very satisfied with the results of the operation. From the 47.3% who found their quality of life before the operation bad or even devastating, 93% envoy life after the operation like never before.
In a prospective study of 188 patients with morbid obesity, the time-dependent changes in the quality of life of individual patients were analyzed following laparoscopic gastric banding (LGB). These 188 patients (148 females and 40 males; age 19 to 59 years; body mass index 33 to 72 kg/m²) underwent evaluation of the LGB according to a strict protocol that included psychological testing using standardized instruments, detailed medical evaluation, upper gastrointestinal function studies, and evaluation of quality of life using the Gastrointestinal Quality of Life Index (GIQLI). Following this evaluation, 73 patients (57 females and 16 males; age 37 years [range 19 to 59 years]; body mass index 48 kg/m² [range 37 to 72 kg/m²]) underwent LGB and were followed up for 2 years focusing on weight loss, postoperative morbidity, weight-related comorbidity, and quality of life. The results demonstrate that LGB is well able to allow for a significant loss of excess weight and a significant improvement in patients’ quality of life, both after a rather short period of time after surgery and at a continuous rate throughout the follow-up. The price for this success that was found in approximately 90% of patients is a complication rate of 38%; 85% of these patients, almost one third of all patients, must undergo some type of revision surgery. However, once the complications are resolved, these patients achieve the same level of weight loss and improvement in quality of life as patients with an uncomplicated postoperative course.
BACKGROUND: The types of bariatric and the associated operations performed by academic and private surgeons were surveyed. METHODS: A survey containing 8 questions regarding type of practice, type of surgery, associated procedures during bariatric surgery, years in practice and bariatric training was e-mailed to all members of the American Society for Bariatric Surgery. RESULTS: 46% of the members responded and were divided between those who performed their procedures laparoscopically and those who performed open procedures. Laparoscopic adjustable gastric banding was almost exclusively performed in academic centers and encompassed 20% of their bariatric operations, while the gastric bypass was the most common operation performed (65%), followed by vertical banded gastroplasty and duodenal switch. Operations performed simultaneously indicated that cholecystectomies were performed equally in private practice (92.5%) and the academic sector (95%), with higher incidence in open procedures (95%) compared to laparoscopic (40%). Of the surgeons performing appendectomies, 20% were in private practice and 10% in academic. Liver biopsy was performed with the same incidence in private and academic practices (60%). A minority of responders had formal fellowship training (17%), and many had learned from a partner (40%). The approach was dictated by the surgical training (85%) and background. CONCLUSION: No significant difference was found between the private and academic surgeons in performing operations. Appendectomy is rarely performed academically, and cholecystectomy is mostly performed in the open procedure.

BACKGROUND: Obesity is increasing globally, including in the formerly "Eastern Bloc" countries. METHODS: A survey was made of obesity and bariatric surgery. RESULTS: In the 8 East and Central European countries studied, with total population 300 million, roughly 43% of the population was overweight (BMI 25-30), 23% obese (BMI > 30), with about 15 million people morbidly obese (BMI > 40). From 0-10 morbidly obese individuals/100,000/year undergo bariatric surgery. CONCLUSION: Most countries were found to provide inadequate treatment for obesity. The majority of the morbidly obese are not treated effectively. However, health-care awareness of obesity and bariatric surgeons are slowly increasing.
BACKGROUND: Gastric restriction is a treatment option for morbid obesity. Currently there are several types of adjustable gastric bands available, with two leading but conceptionally different systems, not just from a technical point of view but also from the long-term complication rates.

METHODS: A literature search of articles published from January 1997 to December 2002 dealing with prospective or restrospective studies comparing results of treatment with the Swedish band and Lap-Band was carried out. RESULTS: 7 comparative studies fulfilled inclusion criteria, with a total of 1031 patients in the Swedish band group (41-597) and 1305 patients in the Lap-band groups (34-821). Pouch dilatation/slippage and/or erosion in Swedish vs Lap-band were reported in the studies as follows: 1 vs 2 in study group 1, 0 vs 9 in study group 2, 0 vs 3 in 3, 3 vs 38 in 4, 0 vs 64 (slippages) and 4 vs 4 (erosions) in group 5. In study 6, 3 vs 3 dilatations and 0 vs 1 erosions were reported. Study 7 found 12 vs 42 long-term complications of this origin. Port-site infections, total reoperation rates and length of hospital stay were also compared. CONCLUSION: The results of this meta-analysis reveal that fall in BMI is similar with both laparoscopic bands. Long-term complication rates, despite the fact that they have been defined in a similar way in all the included studies, may be higher with more reoperation rates in Lap-band(R) patients.
Background: Commonly used adjustable gastric bands function on two different physical principles: low pressure-high volume and high pressure-low volume system.

Methods: A study was carried out to investigate the theoretical and clinical levels of adjustable band volume-pressure features and their possible influence on band-related complications. The theoretical study had two objectives: to define physical principles of impact of the band balloon on the gastric wall at the stoma region, and to apply a physical formula for calculating this data. The objectives of the clinical part of the study were to construct a simple reliable measuring device, enabling data collection on an out-patient basis from patients who had undergone gastric banding with the two band systems, to support or refute the theoretically calculated results.

Results: A physical formula calculated the pressure applied by the different band systems on the gastric wall in the stoma region. Calculations revealed a >100% difference in pressure caused by the respective bands. Invasive pressure measurements in 35 patients with the different balloon systems agreed with the calculated data, and found a >100% difference in pressure affecting the stoma wall both at rest and during meals.

Conclusions: Differences in pressure on the gastric wall related to the physical system on which the bands operate may be a partial explanation for longterm complications of respective bands.
BACKGROUND: Laparoscopic adjustable silicone gastric banding (LASGB) has replaced vertical banded gastroplasty (VBG) as the most widespread restrictive bariatric operation in Europe. Although these two procedures are similar in principle, the experience concerning the preoperative examinations and follow-up cannot be arbitrarily transferred from VBG to LASGB. The reasons for and consequences drawn from radiologic and endoscopic examinations are described. METHODS: From December 1996 to January 2000, 148 patients (84% women, average age 39 years, body weight 127 kg, BMI 45 kg/m²) underwent LASGB. The mean follow-up was 17 months. Upper GI series, abdominal ultrasound, and gastroscopy were done before operation. The postoperative stoma adjustments were performed under radiological observation. All adjustments were analyzed.

RESULTS: Preoperative: Of 147 upper GI series, 74 showed hiatal hernia, 2 motility disorders, and 1 an incomplete malrotation. In 104 gastroscopies, 35 reflux and 53 gastritis with 24 Helicobacter pylori infections were found. Postoperative: On average, 2.7 radiological adjustments were done per patient. Until satisfactory satiety and weight reduction, 78% of the patients needed 0-3 adjustments. Besides routine adjustments, an additional 57 upper GI series were done in 35 patients, 44 times with opening of the stoma-diameter. A total of 14 slippages and 4 pouch enlargements were found. A gastroscopy was required in 12 patients. CONCLUSION: Radiologic and endoscopic examinations before LASGB revealed pathology needing therapy in 42% of the patients and provided important additional information influencing the operative procedure. At an average follow-up of 17 months, 24% of the 148 patients needed unplanned additional upper GI series.
BACKGROUND: We investigated the reduction in comorbidities following laparoscopic adjustable silicone gastric banding (LAGB). METHODS: Between December 1996 and October 2002, 295 patients with mean BMI 45 kg/m\(^2\) were operated (79% women, average age 41 years). Mean follow-up was 44 months. Reduction in co-morbidity was scaled relative to the preoperative co-morbidity level as having been cured, improved, unchanged, or worsened. Patients needing reoperations were analyzed separately. RESULTS: The preoperative frequencies of co-morbidities were as follows: hypertension 52%, diabetes 20%, dyspnea 85%, peripheral edema 63%, sleep apnea 36%, arthralgia 89%, reflux 57%, reduced self-esteem 95%, reduced general physical performance 96%, hyperlipidemia 39%, hyperuricemia 36%, and menstrual problems 22%. Excess weight loss after 1 year was 40%, after 2 years 46%, after 3 years 47%, and after 4 years 54%. After 4 years, the rate of cure/improvement of the co-morbidities were: hypertension 58% / 42%, diabetes 75% / 8%, dyspnea 85% / 12%, arthralgia 52% / 24%, reflux 79% / 11%, self-esteem 45% / 39%, and general physical performance 58% / 33%. We also found an improvement in stress incontinence, sleep apnea, peripheral edema, and regulation of menstruation. Greater weight loss was associated with greater reduction in dyspnea, arthralgia, self- esteem, and physical performance. Hypertension, diabetes, reflux, and edema improved independent of the amount of weight loss. Reoperated patients undergoing either rebanding or biliopancreatic diversion with duodenal switch had similar weight loss and reduction in co-morbidities as did patients treated with LAGB only. CONCLUSION: With moderate weight loss following LAGB, co-morbidities were cured in 50-80% or improved in 10-40% of all patients.
541. Frydenberg H.
Obesity Surgery in Australia and New Zealand,
*Obesity Surgery, 14, 2004, 913.*
(LAP-BAND® System Congress Presentation Abstract)

542. Furbetta F., Gambinotti G., Robortella E.,
28-Month Experience with the LAP-BAND® Technique: Results and Critical Points of the Method,
*Obesity Surgery, 9, 1999, 56-58.*
(LAP-BAND® System Article)

No abstract available

543. Furbetta F., Robortella E., Gambinotti G.,
Coding of the Re-Operation Technique after LAP-BAND®,
*Obesity Surgery, 10, 2000, 316.*
(LAP-BAND® System Congress Presentation Abstract)

544. Furbetta F., Gambinotti G.,
LAP-BAND® and Hiatus Hernia,
*Obesity Surgery, 11, 2001, 387.*
(LAP-BAND® System Congress Presentation Abstract)

545. Furbetta F., Gambinotti G.,
New Positioning of the Port System,
*Obesity Surgery, 11, 2001, 430.*
(LAP-BAND® System Congress Presentation Abstract)
546. Furbetta F., Gambinotti G.,
   Functional Gastric Bypass with an Adjustable Gastric Band,
   (LAP-BAND® System Article)

BACKGROUND: To create a bond between the technique proposed and the patient, flexibility and adaptability are indispensable. Thus, we devised the functional gastric bypass, which can be activated and deactivated by inflating or deflating the Lap-Band. METHODS: The Lap-Band was positioned according to the standard technique, with the addition of a hand-sewn side-to-side gastroenterostomy between the gastric pouch and the intestine in the form of an Omega loop. Inflation or deflation of the Lap-Band allows activation or deactivation of the bypass. From October 1995 to December 2001, 545 Lap-Band operations were carried out. Between January 2001 and December 2001, functional gastric bypass was performed on 7 patients. Indications were: 1) prior failed Lap-Band treatment; 2) the first-choice operation for patients where non-restrictive surgery may be indicated. RESULTS: There was no morbidity or mortality. The functioning bypass was confirmed radiologically and clinically. CONCLUSION: In morbid obesity characterized by a variable relationship with food, the flexibility of the functional bypass allows adaptation to changes in the pathology itself and in the individual patient, which other surgical techniques cannot do. Surgical indications, proven feasibility, safety and efficacy await long-term documentation.

547. Furbetta F., Coli E.,
   Codification of Technique for Reoperation After LAP-BAND,
   (LAP-BAND® System Congress Presentation Abstract)

548. Furbetta F., Cusa di Cura L., Sovigliana-Vinci F.,
   Perigastric or “Pars Flaccida” Gastric Banding? Indications and Technique,
   (LAP-BAND® System Congress Presentation Abstract)

   LAP-BAND® - Adjustable Gastric Banding System in Elderly Patients,
   (LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: 10 to 25% of patients undergoing bariatric surgery will require a revision, either for unsatisfactory weight loss or for complications. Reoperation is associated with a higher morbidity and has traditionally been done in open fashion. The purpose of this study was to determine the safety and efficacy of reoperative surgery using a laparoscopic approach. METHODS: A retrospective review of medical records over a 22-month period was conducted. 27 consecutive obesity surgery patients, who had undergone a laparoscopic revision, were identified. 26 of the 27 patients were women. The average age was 40.3 years (range 20 to 58 years) and average original preoperative body mass index (BMI) was 51.6 kg/m² (range 42 to 66.5). The 27 primary bariatric operations consisted of vertical banded gastroplasty (12), gastric band placement (9) and gastric bypass (6). 17 of them were open procedures. After the primary surgery, the lowest average BMI was 37.6 kg/m² (range 21 to 52), which increased to 42.7 kg/m² (range 29 to 56) before reoperation. 24 of the 27 reoperations were indicated for insufficient weight loss. On average, revision was undertaken 52 months after the primary procedure (range 12 to 240 months). RESULTS: 24 of the 27 laparoscopic reoperations were conversions to a gastric bypass. A second reoperation was indicated for insufficient weight loss on four occasions. In one case, conversion to open surgery was required. The average operative time was 232 +/- 18.5 minutes (range 120 to 480) and length of hospital stay was 3.7 days (range 1 to 9). 22% percent of patients (6) experienced complications, including pneumothorax, gastric remnant dilation, gastrojejunostomy stenosis, port-site hernia and protein malnutrition. There was no mortality in the study. The average BMI was 35.9 kg/m² (range 27 to 45.5) 8 months after surgery (range 1 to 22 months). Compared with a preoperative BMI of 42.7 kg/m², the weight loss was statistically significant (p < 0.001). CONCLUSION: Our results compare favorably with those reported for open reoperative bariatric surgery. A laparoscopic approach may be considered a feasible and safe alternative to an open operation.
553. Galyani C., Horgan S., Gorodner MV, Mosser F., Baptista M., Arnold A., Berguer R.,
Laparoscopic adjustable gastric band vs. laparoscopic Roux-en-Y gastric bypass: ends justify the means?
(LAP-BAND® System Abstract)

554. Gambinotti G., Robortella M., Furbetta F.,
Personal Experience with Laparoscopic Adjustable Silicone Gastric Banding in the Treatment of Morbid Obesity,
Eating and Weight Disorders, 1998, 1, 43-45.
(LAP-BAND® System Article)

The treatment of 162 pathologically obese patients by means of laparoscopic adjustable silicone gastric banding (LASGB) is described: 112 patients were followed up for 15 months. All patients had a positive outcome, as documented by the progressive reduction in their body mass index (BMI) from an initial mean +/- SD of 42.6 +/- 8.5 to 32.2 +/- 9 after 15 months. Only 11 complications were encountered. The mean hospital stay was 2 days. These findings support the notion that LASGB is a safe and effective technique for the treatment of morbid obesity.

555. Ganesh R, Rao A, Leese T, Baladas H,
Preoperative Very Low Calorie Diet in Super-Obese Asian Patients Awaiting Laparoscopic Adjustable Gastric Banding (LAGB),
(LAP-BAND® System Abstract)

556. Ganesh R, Rao AD, Leese T, Baladas HG,
Laparoscopic Adjustable Gastric Banding in a Patient with an Incidental Para-Hiatal Hernia,
Obesity Surgery, 16, 2006, 98-101
(LAP-BAND® System Article)

Laparoscopic adjustable gastric banding (LAGB) in patients with a sliding hiatus hernia has become an accepted procedure. However, LAGB in patients with less common types of diaphragmatic hernia is rarely described. We report a super-super-obese woman with a para-hiatal hernia (non-hiatal, diaphragmatic hernia) where LAGB was performed. The para-hiatal hernia was successfully repaired laparoscopically at the same time that the LAGB was performed. A para-hiatal hernia is not a contraindication to LAGB and can be repaired at the same operation.
INTRODUCTION: Severe obesity is an increasing problem in Singapore. Laparoscopic adjustable gastric banding (LAGB) was introduced at our hospital in 2001 as part of a comprehensive weight management programme. To assess the effectiveness of this procedure, our results to date have been reviewed. METHODS: A prospective database was kept of all patients undergoing LAGB and this was used to retrieve the information. RESULTS: 256 consecutive patients underwent LAGB from January 2001 up to December 2005. There were 163 females and 93 males, with a median age of 36 years (range 18-63 years). Median preoperative weight was 112.7 kg (range 71.5-204 kg) and median body mass index (BMI) was 41.9 (range 32-73). Three patients were converted from laparoscopic to open laparotomy (1.2 percent). 91 percent of patients were discharged home on the first postoperative day. There were seven hospital morbidities (2.7 percent) with one mortality (0.4 percent). During follow-up, 20 patients (7.8 percent) developed late complications requiring revision surgery. Ten were band complications, requiring revision or removal of the band. The other ten were minor access port or tubing complications. Median weight loss at one year was 27.6 kg (range 5.6-71.2 kg) and median excess weight loss, using a BMI of 23 as a baseline, was 51.7 percent (range 9-117.5 percent). Easily measurable comorbidities such as diabetes mellitus and hypertension improved or resolved in 85.4 percent of patients. CONCLUSION: There is a clear demand for LAGB in Singapore. This has increased since the BMI thresholds for severe obesity were reduced in Asian patients. The surgery provides effective, lasting weight loss with improvement or resolution of comorbidity for most patients. LAGB has the advantages of allowing controlled weight loss and life-long treatment while being easily reversible. When compared to other bariatric surgical procedures, low hospital morbidity has to be offset against the closer follow-up required and the need for secondary surgical procedures in some patients.
BACKGROUND: Laparoscopic adjustable silicone gastric banding (LASGB) is a viable therapeutic approach to achieve stable body weight reduction in severe obesity. The aim of this study was to evaluate body composition and metabolic features in morbidly obese patients before and after LASGB. MATERIAL/METHODS: There were 15 severely obese patients (Ob) (M/F: 4/11; mean age: 32.5 +/- 3.8 years) and 16 age-and sex-matched healthy lean controls (C) (M/F: 4/12; mean age: 39.5 +/- 2 years). Body mass index (BMI), waist circumference, waist-to-hip ratio, blood pressure, lipid profile, serum glucose and insulin during OGTT, and HOMA-IR were evaluated in all subjects. Body composition and fat distribution were measured using dual energy X-ray absorptiometry (DEXA). Patients were assessed before and six months after LASGB. RESULTS: The obese subjects showed several metabolic alterations. There were also positive correlations between waist, fat mass (FM), and HOMA-IR at baseline. After LASGB, mean BMI fell from 42.2 kg/m² to 33.2 kg/m²; waist circumference and abdominal FM% decreased significantly. FM% declined, whereas FFM% increased. The ratio of FM loss to FFM loss was 3.7:1. Serum glucose and insulin levels during OGTT diminished slightly after weight loss and triglyceride levels fell dramatically. After LASGB, fasting insulin and HOMA-IR declined. RESULTS: LASGB induced a significant improvement in insulin sensitivity and a redistribution of body composition with a relative increase of FFM.

Gasteyger C., Giusti V., Burckhardt P.,
Phosphocalcic and bone metabolism 24 months after gastric banding in obese premenopausal women,
(LAP-BAND® System Abstract)
BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) causes significant weight loss in morbidly obese adults. However, its consequences on nutritional status still remain unclear. This study aimed to investigate the effects of LAGB on body composition, metabolic profile and nutritional status in obese, premenopausal women. METHODS: 36 obese, premenopausal women (age 24-52 years; mean BMI 43.8 kg/m2) who underwent LAGB were included. Body composition was measured using dual-X-ray absorptiometry at baseline, 6, 12 and 24 months after surgery. Blood pressure, total cholesterol, HDL-cholesterol, triglycerides, glucose, uric acid, total proteins, iron, ferritin, vitamin B12, folic acid, hemoglobin and mean corpuscular volume were measured at baseline, 6, 12, 18 and 24 months after surgery. RESULTS: All patients lost weight over 24 months (range 16.0-71.9 kg): there was a significant loss of fat mass (-51.4%; P<0.0001) as well as of fat-free mass (-13.1%; P<0.0001). There was a significant improvement in blood pressure, glucose, total cholesterol, HDL-cholesterol, triglycerides and urates during the first year; during the second year, a further significant decline was noted only in glucose and urates. According to ATP III criteria, 21 of our patients (58%) had a metabolic syndrome before surgery, but only 9 of them (25%) after 12 months and 1 of them (3%) after 24 months. No nutritional deficiency was noted, except for a significant decrease in serum folate (44.1%; P<0.0001 between baseline and month 24). CONCLUSION: LAGB allows significant improvements in metabolic profile, especially during the first postoperative year, without causing major nutritional deficiencies, except for folates.
BACKGROUND: Vomiting and extreme weight loss may be life-threatening when stenosis develops following vertical banded gastroplasty. Often patients must undergo revisional surgery. Once the stenosis is relieved, the majority of patients will proceed to gain weight at an excessive rate. Placement of an adjustable band during revisional surgery allows us to treat the stenosis while limiting the patients' weight gain and preventing the return of morbid obesity. Performing this operation laparoscopically reduces patient morbidity. PATIENTS AND METHODS: 23 patients (16 female, 7 male) were referred because of severe food intolerance following silastic ring or Dacron mesh vertical gastroplasty. The patients were on average 1.75 years after the initial operation (range: 9 months - 6 years). All patients required repeat hospitalizations due to excessive vomiting and dehydration. All patients underwent laparoscopic surgery, with placement of an adjustable band in 21 patients. RESULTS: All operations were performed laparoscopically without need for conversion to laparotomy. There were no intra-operative complications, and all patients were discharged within 24 hours. Patients have been followed for a mean of 7 months (range 3 months to 16 months). All patients became food tolerant without vomiting. 15 patients required inflation of the adjustable band in order to control excessive weight gain. CONCLUSIONS: Laparoscopic adjustable gastric banding at the time of revisional surgery for stenosis appears to be a safe and effective operation that does not add morbidity to surgery, but does prevent the need for further revisional surgeries when patients begin to gain excessive weight after relief of their obstruction.
BACKGROUND: Since the 1980s, bypass operations have been largely replaced by gastric restrictive operations. One of the most commonly performed operations for gastric restriction is vertical banded gastroplasty (VBG). However, the results are often disappointing. Adjustable gastric banding (AGB) is a viable alternative to VBG, and the ability to perform this surgery laparoscopically makes it an attractive option for patients in need of revisional surgery. It allows for refashioning of the gastric pouch in patients with a dilation of the pouch or disruption of the staple line. METHODS: A total of 48 patients were referred to our center due to post-VBG weight gain. All patients underwent preoperative evaluation to determine the cause for failure of the operation. All patients found suitable for revisional surgery underwent laparoscopic placement of an adjustable band. RESULTS: All but one of the operations were completed laparoscopically; one patient required conversion to open surgery prior to band placement via laparoscopy. This patient needed a blood transfusion. Postoperative band erosion occurred in one patient; laparoscopy surgery was used successfully for removal of the band and suturing of the stomach. CONCLUSIONS: Our short-term results indicate that revisional operation for morbid obesity using laparoscopic AGB is a safe procedure when performed cautiously. It enables early patient mobilization and discharge with good functional results and fewer perioperative complications.

564. Gawdat K.,
The Use of Esophageal Transillumination for a Safer Laparoscopic Adjustable Gastric Band Placement,
Obesity Surgery, 10, 2000, 315.
(LAP-BAND® System Congress Presentation Abstract)

565. Gawdat K.,
A Comparative Study Between Four Bariatric Procedures: Is There An Ideal Procedure Yet?
(LAP-BAND® System Congress Presentation Abstract)

566. Gawdat K.,
Modified Long Vertical Banded Gastroplasty Versus Laparoscopic Adjustable Gastric Banding: Is Adjustability Really an Advantage?
Obesity Surgery, 12, 2002, 462.
(LAP-BAND® System Congress Presentation Abstract)
INTRODUCTION: Patients are frequently referred for chronic cough. The causes are various. CASE REPORT: We report two cases of chronic cough that occurred after laparoscopic adjustable gastric banding for treatment of morbid obesity. In both cases, the computed tomography scan showed an important oesophageal dilatation. The cough disappeared after the band deflation. CONCLUSION: Oesophageal dilatation after laparoscopic adjustable gastric banding is a new cause to be included in the aetiology of chronic cough.

BACKGROUND: The aim of this study was to perform an evidence-based analysis of the literature on open and laparoscopic surgery for morbid obesity. METHODS: Human studies on surgery for morbid obesity were conducted. Multiple publications of the same studies, abstracts, and case reports were reviewed. Current Contents, MEDLINE, EMBASE, and Cochrane Library databases were investigated. RESULTS: Open Roux-en-Y gastric bypass (RYGB) for morbidly obese patients and long-limb RYGB for superobese patients are highly effective procedures. Randomized controlled trials comparing malabsorptive procedures with other bariatric operations are needed. The long-term efficacy of adjustable silicone gastric banding (ASGB) still is undetermined because of poor evidence. Laparoscopic RYGB is as safe as its open counterpart, although its long-term results are lacking. Laparoscopic ASGB is less invasive than open ASGB, although its efficacy cannot be determined because of poor evidence. Laparoscopic vertical banded gastroplasty (VBG) is becoming unpopular since the decreasing trend of open VBG. Laparoscopic biliopancreatic diversion with duodenal switch is feasible, but needs further studies. CONCLUSIONS: Randomized controlled trials comparing the various laparoscopic operations are strongly needed.
571. Giardiello C., Cristiano S., Cerbone M., Troiano E.,
    BioEnterics LAP-BAND® vs Helioscopy Heliogast®: Our Experience,
    *Obesity Surgery*, 12, 2002, 481.
    (LAP-BAND® System and Heliogast® Abstract)

572. Giardiello C., Cerbone M., Troiano E.,
    Laparoscopic Adjustable Gastric Banding: Early Results and Complications of Two
    Commonly Used Bands,
    (LAP-BAND® System Congress Presentation Abstract)

573. Gibbs K., Vemulapalli P., Goodwin A., McGinty A., Texiera J.,
    Laparoscopic Adjustable Gastric Banding: An American Experience,
    (LAP-BAND® System Congress Presentation Abstract)

574. Gillardin JM, Pattyn JP., Ceelen WP, Decleroq E.,
    Long-term results in a series of >1200 adjustable gastric bandings,
    (LAP-BAND® System Abstract)

575. Giovanelli A,
    Adjustable Gastric Band in the management of Morbid Obesity: Experience in the First
    1,000 Patients,
    *Obesity Surgery*, 16, 2006, 1013.
    (LAP-BAND® System Abstract)

576. Giovanni J.,
    Double pass technique for laparoscopic gastric banding in patients with excessive
    perigastric fat,
    *Surgery for Obesity and Related Diseases*, 1, 2005, 227.
    (LAP-BAND® System Abstract)

577. Giusti V., Suter M., Haraief E., Zysset E., Burckhardt P.,
    Modification of Body Composition 6 Months After Laparoscopic Gastric Banding,
    (LAP-BAND® System Congress Presentation Abstract)

578. Giusti V., Suter M., Zysset E., Pugnale N., Heraief E., Gaillard R.,
    Burckhardt P.,
    Modification of Body Composition Twelve Months after Laparoscopic Gastric Banding,
    (LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: The authors analyzed the trends in anthropometric and behavioral characteristics among patients seeking weight loss and the trends in choice of treatments, between 1997 and 2001 in an outpatient obesity clinic. PATIENTS AND METHODS: 138 and 128 consecutive patients attending the outpatient obesity clinic at University Hospital of Lausanne were screened in 1997 and in 2001 respectively. Eating habits, body composition and treatment used were assessed. RESULTS: Median BMI was 35 kg/m² in 1997 and 38 kg/m² in 2001 (P <0.001) and waist circumference was 99 cm and 111 cm respectively (P <0.001). This increase in the average body weight involved especially patients <30 years old (P <0.01). Morbid obesity increased by 16% (P <0.01), and prevalence of abdominal obesity by 13% (P <0.05). The median desired weight loss increased significantly from 25% to 29% (P <0.05). 64% of the patients in 1997 and 83% in 2001 (P <0.01) hoped for a weight loss of 20% of their baseline weight. Motivation to lose weight for esthetic reasons was found in 81% of the women and 55% of the men in 1997 (P <0.01), while in 2001 the percentage was 89 and 43 respectively (P <0.001). CONCLUSION: In spite of the increasing access to weight loss programs, we found that the patients are more severely obese, especially those <30 years old, and have more unrealistic expectations of weight loss. This may explain the doubling of the patients treated by surgery.
BACKGROUND: Obesity is frequently associated with metabolic and cardiovascular co-morbidities and high mortality rates. Besides, because of the increasingly recognized fact that conservative therapy for morbid obesity is associated with an almost 90-95% failure rate in the long term, and probably because of the development of laparoscopic surgery, the demand for bariatric surgery is increasing rapidly. The significant weight loss observed during the first 6-12 months after gastric banding is related to the severe food restriction, related hypercatabolism, and has a potential risk of mineral and vitamin deficiencies. The aim of this study was to evaluate the effects of gastric banding on total body composition, metabolic profile and nutritional status. METHODS: 31 women were studied with median age 36 years (range 25-52), body weight 118.6 kg (range 98-156), BMI 43.6 kg/m(2) (range 36-56 kg/m(2)), percentage of excess body weight (%EW) of 107% (range 72-166%), waist 115 cm (range 98-132) and hip 138 cm (range 119-155). Total body composition was measured before, 6 and 12 months after laparoscopic gastric banding, using dual-energy x-ray absorptiometry. Metabolic and nutritional profile were evaluated before and 1, 3, 6, 9 and 12 months postoperatively. RESULTS: There was a 23.3% reduction of total body weight and 36.8% reduction of body fat. Unfortunately we also observed a reduction of Fat Free Mass (FFM) of 9.6%. In addition, the major determinants of weight loss were the initial body weight and abdominal distribution of fat mass. Reduction of FFM was positively correlated with the rapidity of weight loss. A significant improvement of glucidic profile was observed, with disappearance of impaired fasting glucose, and normalization of the values of triglycerides in all patients. The prevalence of the metabolic syndrome decreased from 89% in preoperative conditions to 15% 1 year after gastric banding. No major nutritional deficiencies was found following gastric banding. CONCLUSIONS: This prospective study suggests that the first 6 months postoperatively are crucial for weight loss and changes in body composition. Furthermore, the significant reduction of body weight is accompanied by an important improvement of biological abnormalities.
581. Giusti V., Gasteyger C., Suter M., Heraief E., Gaillard C., Burckhardt P.,
Gastric banding induces negative bone remodeling in the absence of secondary
hyperparathyroidism: potential role of serum C telopeptides for follow-up,
(LAP-BAND® System Article)

OBJECTIVE: Data about the consequences of laparoscopic adjustable gastric banding (LAGB) on
phospho-calcic and bone metabolism remain scarce.

SUBJECTS: We studied a group of 37 obese
premenopausal women (age: 24-52 y; mean BMI=43.7 kg/m(2)) who underwent
LAGB.

METHODS: Serum calcium, phosphate, alkaline phosphatase, parathormone (PTH), vitamin
D(3), serum C-telopeptides, IGFBP-3 and IGF-1 were measured at baseline, 6, 12, 18 and 24 months
after surgery. Body composition, bone mineral content (BMC) and density (BMD) were measured
using dual-X-ray absorptiometry (DXA) at baseline, 6, 12 and 24 months after
surgery.

RESULTS: There was no clinically significant decrease of calcemia; PTH remained stable.
Serum telopeptides increased by 100% (P<0.001) and serum IGFBP-3 decreased by 16% (P<0.001)
during the first 6 months, and then stabilized, whereas IGF-1 remained stable over the 2 y. BMC and
BMD decreased, especially at the femoral neck; this decrease was significantly correlated with the
decrease of waist and hip circumference.

CONCLUSIONS: We concluded that there was no evidence
of secondary hyperparathyroidism 24 months after LAGB. The observed bone resorption could be
linked to the decrease of IGFBP-3, although this decrease could be attributable to other confounding
factors. Serum telopeptides seem to be a reliable marker of bone metabolism after gastric banding.
DXA must be interpreted cautiously during major weight loss, because of the artefacts caused by the
important variation of fat tissue after LAGB.

582. Greenstein R., Rabner G., Green S., Hodge-Penn G., Kaiser S., Halpern N.,
The Laparoscopic Adjustable Gastric Band (LAP-BAND®): Observations from the
Preliminary Mount Sinai Experience of a Nationwide Multi-Center, FDA-Moderated
Study,
Obesity Surgery, 6, 1996, 124.
(LAP-BAND® System Congress Presentation Abstract)

583. Greenstein R., MacLean L., Rabner J.,
Does Premenstrual Bloating Predispose to LAP-BAND® Slippage?
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: The purpose of this study was to assess factors of clinical importance in morbidly obese patients having a laparoscopically adjustable gastric band (LAP-BAND) implanted in order to achieve weight loss. METHODS: Preoperative evaluation of hiatus hernia and esophageal (dys)motility were compared with the need for reoperation. Results are presented for the first 50 consecutive patients entered. RESULTS: Nine of the first 50 patients required reoperation (18%). Five (10%) were for LAP-BAND slippage on the stomach. Of these five, reoperation was required in four of 12 (33%) with hiatus hernia (P = 0.0093); three of nine (33%) with a motility disorder (P = 0.025); and three of six (50%) with both hiatus hernia and a motility disorder (P = 0.0076). CONCLUSIONS: We identify two factors, hiatus hernia and esophageal dysmotility, which are associated, both independently as well as in combination, with reoperation for LAP-BAND slippage. Both patients and their physicians should consider these data when considering the LAP-BAND as possible therapy for morbid obesity.
CONTEXT: Most individuals who have non-insulin-dependent diabetes mellitus are obese. The obese population has proved a frustrating entity regarding weight loss and diabetes control. Results of medical weight loss programs, medications, and behavior therapy have proved disappointing. HYPOTHESIS: Bariatric surgery is the most effective method of diabetes management and cure in the morbidly obese population. Surgical procedures to cause malabsorption provide a more dramatic effect on diabetes owing to the impared bypass of the hormonally active foregut. DATA SOURCES: Pertinent journal articles spanning the last 40 years, as well as textbooks. CONCLUSIONS: Bariatric surgical procedures have proven a much more successful method of weight loss and diabetes control in the obese population than conservative methods. These surgical procedures have proven safe with reported mortality rates of 0% to 1.5%. Bariatric operations may be divided based on the method of weight loss and effect on diabetes. The first category is restrictive and includes vertical banded gastroplasty and adjustable silicone gastric banding. These operations improve diabetes by decreasing food intake and body weight with a slowing of gastric emptying. The second category not only contains restrictive components but also elements of malabsorption. This category includes the Roux-en-Y gastric bypass and biliary-pancreatic diversion, which bypass the foregut. Although all of the surgical procedures for obesity offer improved weight loss and diabetes control compared with conservative methods, the Roux-en-Y gastric bypass and biliary-pancreatic diversion offer superior weight loss and resolution of diabetes. The more dramatic effect seen in the surgical procedures to cause malabsorption is likely secondary to the bypass of the foregut resulting in increased weight loss and elevation of the enteroglucagon level.

Although bariatric surgery has proven to be the most effective treatment for morbid obesity, most surgical techniques do have failures. In an effort to improve the reliability, several surgeons started to use a combination of a laparoscopic gastric bypass with an adjustable gastric band. Because of concerns regarding a possible negative outcome, an expert meeting was organized to evaluate the current situation and future application. In total, 104 operations were reported, with several technical variations. The overall complication rate was acceptable, but the percentage of the band erosions was 6.7%, which is too high. The potential advantages (adjustability, maintained access to the stomach and biliary tree, and reversibility) do not compensate for this complication rate. Based on the results and the opinion of the surgeons experienced in this technique, it is concluded that the combination of gastric bypass with an adjustable gastric band to form the pouch is not recommended.
BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) is commonly indicated in morbidly obese patients. There is controversy regarding the hemodynamic effects of pneumoperitoneum (PNP) in obese patients. PNP and changes in body posture have complex effects on venous return that may be detected by respiratory changes in the arterial pressure waveform. The aim of this study was to compare pneumoperitoneum-induced and reverse Trendelenburg (RT) changes in arterial pulse pressure in obese and normal-weight patients. METHODS: 15 morbidly obese patients undergoing LAGB were compared to 15 normal-weight patients undergoing laparoscopic surgery. Arterial pressure was non-invasively recorded using an arterial tonometer. Respiratory changes in pulse pressure (deltaPp) were recorded in the supine position without and with PNP, and in RT position with pneumoperitoneum. RESULTS: PNP increased deltaPp values in normal weight (P<0.001), but not in obese patients. RT position increased deltaPp values in obese patients, but did not cause additional changes in normal-weight patients. CONCLUSIONS: Unlike normal-weight patients, PNP in the supine position has minimal effect on the arterial pulse-pressure wave-form in obese patients. This observation may reflect physiological differences in total blood volume and loading conditions of the heart between morbidly obese and normal-weight patients, which affect venous return during PNP. Differences in abdominal vascular zone conditions between obese and normal weight-patients may explain these results.
BACKGROUND AND AIM: Gastric banding induced considerable and rapid weight loss in morbid obesity. Nevertheless data on changes in body composition following gastric banding are scanty. In this study, we evaluated the 2-year changes in body composition in a small group of morbidly obese women treated by laparoscopic adjustable gastric banding (LAGB) associated with a well balanced low-calorie diet.

METHODS AND RESULTS: We studied 20 premenopausal morbid obese women with BMI ranging from 35 to 57 (kg/m²) before, and 6, 12 and 24 months after laparoscopic adjustable gastric banding (LAGB). A well balanced 5.4 MJ/day hypocaloric diet was prescribed after surgery. Total body water (TBW), fat-free mass (FFM) and fat mass (FM) were investigated using conventional bioelectrical impedance analysis (BIA). Tissue hydration was also assessed by impedance vector analysis and the RXc graph method. The subjects showed a total weight loss of 28% of baseline body weight. In the first 6 months after surgery, patients lost 18.5+/−5.9 kg of body weight (17.6+/−6.2 kg of FM and 0.7+/−1.4 kg of FFM). From 6 to 12 months, a further 12.5+/−7.5 kg of body weight was lost (10.5+/−8.2 kg of FM and 2.2+/−3.8 kg of FFM). During the last 12 months, weight loss was 3.0+/−2.3 kg (1.9+/−3.7 kg of FM and 1.1+/−2.9 kg of FFM). The weight loss observed after LAGB was mainly due to a decrease in FM, whereas TBW, FFM and BCM were only slightly and non-significantly reduced. No changes in body hydration status were observed after surgery.

CONCLUSIONS: LAGB associated with a well balanced low-calorie diet achieved a satisfactory 2-year weight loss, while sparing FFM and not causing body fluid alterations.
During the past decade, laparoscopic adjustable gastric banding has become the most popular surgical procedure in treating morbid obesity. On the other hand, significant drawbacks such as inadequate long-term weight loss, a high prevalence of reoperations, and frequent postoperative symptoms have been reported in the literature. This analysis summarizes our Department's experience with this operation. Thirty-one patients (27 women and 4 men) with a mean body mass index of 46.5 kg/m² (range, 38.3-59.8 kg/m²) were operated upon laparoscopically between September 1997 and January 2003. The preoperative work-up of all patients included a psychological evaluation. Mean follow-up was 59.3 months (range, 19-84 months). Sixteen patients had esophageal pH-metry and 18 patients had upper gastrointestinal endoscopy preoperatively and postoperatively. Data were collected prospectively during the outpatient visits. Mean preoperative excess weight was 65.6 kg (range, 37.4-96.1 kg). Mean excess weight loss after 12, 24, 36, 48, 60, 72, and 84 months was 40.3%, 50.5%, 51.9%, 48.9%, 46.2%, 51.8%, and 30.2%, respectively. In total, six patients (19.4%) had an abdominal reoperation, including four patients (12.9%) for band removal. Upper gastrointestinal endoscopy was performed in 18 patients after 30.1 months (range, 5-67 months), showing a high prevalence of esophagitis (30.0%; grade 1: n=3, grade 2: n=3). Conversely, postoperative esophageal pH-metry performed in 16 patients was pathologic in 43.8%. Laparoscopic adjustable gastric banding produces significant weight loss even after long-term follow-up. However, the reoperation rate is high and postoperative symptoms are frequent. The high incidence of gastroesophageal reflux and esophagitis remains a matter of concern.
During the past decade, laparoscopic adjustable gastric banding has become the most popular surgical procedure in treating morbid obesity. On the other hand, significant drawbacks such as inadequate long-term weight loss, a high prevalence of reoperations, and frequent postoperative symptoms have been reported in the literature. This analysis summarizes our Department’s experience with this operation. Thirty-one patients (27 women and 4 men) with a mean body mass index of 46.5 kg/m² (range, 38.3-59.8 kg/m²) were operated upon laparoscopically between September 1997 and January 2003. The preoperative work-up of all patients included a psychological evaluation. Mean follow-up was 59.3 months (range, 19-84 months). Sixteen patients had esophageal pH-metry and 18 patients had upper gastrointestinal endoscopy preoperatively and postoperatively. Data were collected prospectively during the outpatient visits. Mean preoperative excess weight was 65.6 kg (range, 37.4-96.1 kg). Mean excess weight loss after 12, 24, 36, 48, 60, 72, and 84 months was 40.3%, 50.5%, 51.9%, 48.9%, 46.2%, 51.8%, and 30.2%, respectively. In total, six patients (19.4%) had an abdominal reoperation, including four patients (12.9%) for band removal. Upper gastrointestinal endoscopy was performed in 18 patients after 30.1 months (range, 5-67 months), showing a high prevalence of esophagitis (30.0%; grade 1: n=3, grade 2: n=3). Conversely, postoperative esophageal pH-metry performed in 16 patients was pathologic in 43.8%. Laparoscopic adjustable gastric banding produces significant weight loss even after long-term follow-up. However, the reoperation rate is high and postoperative symptoms are frequent. The high incidence of gastroesophageal reflux and esophagitis remains a matter of concern.
OBJECTIVE: To report on a new modelling approach developed for the assessing cost-effectiveness in obesity (ACE-Obesity) project and the likely population health benefit and strength of evidence for 13 potential obesity prevention interventions in children and adolescents in Australia. METHODS: We used the best available evidence, including evidence from non-traditional epidemiological study designs, to determine the health benefits as body mass index (BMI) units saved and disability-adjusted life years (DALYs) saved. We developed new methods to model the impact of behaviours on BMI post-intervention where this was not measured and the impacts on DALYs over the child’s lifetime (on the assumption that changes in BMI were maintained into adulthood). A working group of stakeholders provided input into decisions on the selection of interventions, the assumptions for modelling and the strength of the evidence. RESULTS: The likely health benefit varied considerably, as did the strength of the evidence from which that health benefit was calculated. The greatest health benefit is likely to be achieved by the ‘Reduction of TV advertising of high fat and/or high sugar foods and drinks to children’, ‘Laparoscopic adjustable gastric banding’ and the ‘multi-faceted school-based programme with an active physical education component’ interventions. CONCLUSIONS: The use of consistent methods and common health outcome measures enables valid comparison of the potential impact of interventions, but comparisons must take into account the strength of the evidence used. Other considerations, including cost-effectiveness and acceptability to stakeholders, will be presented in future ACE-Obesity papers. Information gaps identified include the need for new and more effective initiatives for the prevention of overweight and obesity and for better evaluations of public health interventions.

Adjustable gastric banding is a well-established procedure for the treatment of morbid obesity. We present a 62-year-old female who experienced the rare complication of intragastric band perforation due to a gastric adenocarcinoma localized at the site of gastric banding, 10 years after insertion of the band.
CONTEXT: The insulin-mimetic adipocytokine visfatin has been linked to obesity. The influence of weight loss on plasma visfatin concentrations in obese subjects is unknown yet. OBJECTIVES: In this study we investigated whether plasma visfatin concentrations are altered by weight loss in patients with obesity. DESIGN AND PATIENTS: In a prospective study, fasting plasma visfatin, leptin, and adiponectin concentrations were measured before and 6 months after gastric banding in 31 morbidly obese patients aged 40 +/- 11 yr with a body mass index (BMI) of 46 +/- 5 kg/m(2). Fourteen healthy subjects aged 29 +/- 5 yr with a BMI less than 25 kg/m(2) served as controls. RESULTS: Visfatin plasma concentrations were markedly elevated in obese subjects (0.037 +/- 0.008 microg/ml), compared with controls (0.001 +/- 0.000 microg/ml, P < 0.001). Gastric banding reduced BMI to 40 +/- 5 kg/m(2), visfatin to 19.2 +/- 10.9 ng/ml, and leptin from 39.0 +/- 12.4 to 29.7 +/- 10.0 ng/ml and increased adiponectin from 0.015 +/- 0.007 to 0.017 +/- 0.007 microg/ml (all P < 0.05) after 6 months. Insulin sensitivity as estimated by the homeostasis model assessment insulin resistance index was unchanged from 5.8 +/- 3.1 to 4.6 +/- 1.9 (P = 0.13), but individual changes of insulin resistance and visfatin were significantly associated (P < 0.05, r = -0.43). CONCLUSIONS: Elevated plasma visfatin concentrations in morbidly obese subjects are reduced after weight loss. This may be related to changes in insulin resistance over time.

OBJECTIVE: Our purpose was to describe the imaging findings of intragastric band erosion, an underreported complication after laparoscopic adjustable gastric banding for morbid obesity: imaging characteristics of an underreported complication, Am J Roentgenol. 2005 Jan;184(1):109-112. (LAP-BAND® System Article)

OBJECTIVE: Our purpose was to describe the imaging findings of intragastric band erosion, an underreported complication after laparoscopic adjustable gastric banding for the treatment of morbid obesity. In this long-term complication, the gastric band fastened around the upper stomach to create a small proximal gastric pouch gradually erodes into the stomach wall and can extend into the gastric lumen. We present three cases of patients with band erosion in whom findings on an upper gastrointestinal series and CT established the diagnosis. CONCLUSION: Diagnosis of intragastric band erosion after gastric banding is usually made with endoscopy. However, the radiologic appearance of band erosion when visualized on an upper gastrointestinal series is pathognomonic and allows initial imaging diagnosis. In patients with extraluminal air or prosthesis infection, CT findings also are suggestive of this postoperative complication.
BACKGROUND: Intraoperative and early postoperative complications in patients operated for morbid obesity were assessed. METHODS: 114 morbidly obese patients underwent gastric banding (non-adjustable or adjustable). The influence of body mass index (BMI), age and preoperative morbidity on the occurrence of postoperative ventilatory disturbances was evaluated. RESULTS: Risk of postoperative ventilatory disorders increased with preoperative cardiovascular disease (p < 0.01), diabetes (p < 0.05), and increasing BMI (p < 0.01). Age, hypertension and pulmonary disease did not influence significantly the risk of complication in this series. There have been no deaths. CONCLUSION: In patients undergoing banding for morbid obesity, the potential for ventilatory complications increases with higher BMI, diabetes and cardiovascular disease in the preoperative co-morbidities. Principles for postoperative care were developed.

Bariatric surgery is a safe and effective method for achieving durable weight loss for patients with morbid obesity. Gastric restrictive procedures include vertical banded gastroplasty and gastric banding. Malabsorptive procedures include long-limb gastric bypass, biliopancreatic diversion, and biliopancreatic diversion with duodenal switch. The gastric bypass has features of both restriction and malabsorption. The laparoscopic approach to bariatric surgery has substantially improved postoperative recovery. Careful patient selection and preoperative work-up are extremely important. A number of medical comorbidities are improved after surgically-induced weight loss.
600. Hanusch-Enserer U., Cauza E., Brabant G., Dunky A., Rosen H., Pacini G., Tuchler H., Prager R., Roden M.,
  Plasma Ghrelin in Obesity before and after Weight Loss after Laparoscopy Adjustable Gastric Banding,
  (LAP-BAND® System Article)

Weight reduction after gastric bypass surgery has been attributed to a decrease of the orexigenic peptide ghrelin, which may be regulated by insulin and leptin. This study examined effects of long-term weight loss after laparoscopic adjustable gastric banding on plasma ghrelin and leptin concentrations and their relationship with insulin action. Severely obese patients (15 women, three men, 36 +/- 12 yr) underwent clinical examinations every 3 months and modified oral glucose tolerance tests to assess parameters of insulin sensitivity and secretion every 6 months. After surgery, body mass index fell from 45.3 +/- 5.3 to 37.2 +/- 5.3 and 33.6 +/- 5.5 kg/m(2) at 6 and 12 months, respectively (P < 0.0001). This was associated with lower (P < 0.0001) plasma glucose, insulin, insulin resistance, waist circumference, and blood pressure. Plasma leptin decreased from 27.6 +/- 9.5 to 17.7 +/- 9.8 (P = 0.0005) and 12.7 +/- 5.1 ng/ml (P < 0.0001). Plasma ghrelin was comparable before and at 6 months (234 +/- 53; 232 +/- 53 pmol/liter) but increased at 12 months (261 +/- 72 pmol/liter; P = 0.05 vs. 6 months). At 6 and 12 months, ghrelin levels correlated negatively with fasting plasma insulin levels and hepatic insulin extraction but not with body mass or insulin action. In conclusion, prolonged weight loss results in a rise of fasting ghrelin concentrations that correlates with fasting insulin concentrations but not improvement of insulin sensitivity.
OBJECTIVE: To evaluate the effect of massive weight loss on insulin sensitivity, soluble adhesion molecules, and markers of the insulin resistance syndrome (IRS). RESEARCH METHODS AND PROCEDURES: Eighteen morbidly obese patients underwent gastric banding and were evaluated before and 6 and 12 months after surgery. Total insulin secretion, hepatic insulin extraction, and insulin sensitivity were analyzed by oral glucose-tolerance test model analysis. In addition, soluble intercellular adhesion molecule-1, vascular cell adhesion molecule-1, E-selectin, leptin, high-sensitivity C-reactive protein, plasminogen activating factor-1 (PAI-1), and tissue plasminogen activator were measured. RESULTS: BMI dropped from 45.22 +/- 5.62 to 36.99 +/- 4.34 kg/m(2) after 6 months and 33.72 +/- 5.55 kg/m(2) after 12 months (both p < 0.0001). This intervention resulted in a significant reduction of blood pressure (p < 0.00001), triglycerides (p < 0.01), fasting blood glucose (p = 0.03), basal insulin (p < 0.001), and basal C-peptide (p = 0.008) levels. Total insulin secretion decreased (p < 0.05), whereas hepatic insulin extraction (p < 0.05) and oral glucose insulin sensitivity index (p < 0.0001) increased compared with baseline. Leptin (p < 0.0001) and E-selectin levels decreased significantly after 6 and 12 months (p = 0.05), whereas significantly lower levels of intercellular adhesion molecule-1 and PAI-1 were only seen after 6 months. Subclinical inflammation, measured by high-sensitivity C-reactive protein, was lowered to normal ranges. No changes were observed in vascular cell adhesion molecule-1 and tissue plasminogen activator levels. DISCUSSION: Although gastric banding ameliorates several features of the IRS, including 29.05% improvement in insulin sensitivity and blood pressure and reduction of soluble adhesion molecules and PAI-1, considerable weight loss did not normalize all components of the IRS in morbidly obese patients.
The laparoscopic adjustable gastric band (LAGB) has become a common, usually successful treatment for morbid obesity. Complications occur in 10-20%, most commonly band slippage and port system problems, especially infection of the port area. A rare complication is penetration of the band into the stomach. We report the penetration of the tube connecting the port system with the gastric band, into the colon 1 year after treatment of a port infection.

604. Harvey K, Gazayerli M, Adair J,
Gastric band adjustment port localization with an inexpensive stud finder,
Surgery for Obesity and Related Diseases, 2, 2006, 414-415
(LAP-BAND® System Article)

No abstract available

A Clinical and Nutritional Comparison of Biliopancreatic Diversion with and without Duodenal Switch,
(LAP-BAND® System Congress Presentation Abstract)

Resolution of hypertension and diabetes following laparoscopic adjustable gastric banding,
2005 SAGES Abstract No. P057, 139.
(LAP-BAND® System Abstract)

607. Haveran L., Felsher J., Freeman V., McEnaney P., Czerniach D., Perugini R., Litwin D., Kelly J.,
Laparoscopic Adjustable Gastric Banding and Laparoscopic Roux-en-Y Gastric Bypass: Comparison of Weight Loss and Complications,
Surgery for Obesity and Related Diseases, 2, 2006, 339.
(LAP-BAND® System Abstract)

608. Heimbucher J., Fuchs K., Tigges H., Freyes S., Schlor U., Thiede A.,
Laparoscopic Gastric Banding: Effects of Excess Weight Reduction on Obesity Related Morbidity,
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Morbid obesity is a scourge of the 21st century. The effective therapeutic measure is bariatric surgery. The medical literature has inadequately reported the potential deleterious effects of such surgery on dental health. Acidic levels in the oral cavity, which are known to be one of the postoperative side-effects of bariatric surgery, directly result in dental caries and tooth erosion. We investigated the self-assessment of postoperative bariatric patients with regard to their dental health and associated variables.

METHODS: 113 patients (25% compliance), who had been operated on in three Jerusalem hospitals, responded to a mailed questionnaire.

RESULTS: Patients’ average age was 40+/-10 years; bariatric surgery had been performed 5+/-4 years previously. Of the patients, 37% reported eating more sweet foods after surgery, only 20% reported improved oral hygiene, only 34% reported increased frequency of visits to the dentist, and 37% reported greater dental hypersensitivity after surgery. Significant associations were found between reported dental hypersensitivity and vomiting (P=0.013), and also dental hypersensitivity and indigestion (P=0.021). Patients from the three hospitals reported different patterns of visits to the dentist. The most common variable (80% of the subjects) associated with visits to the dentist after surgery was dental hypersensitivity.

CONCLUSION: Medical teams need to consider potential dental problems after bariatric surgery, and to supply their patients with the appropriate information and instructions regarding oral hygiene maintenance, healthy dietary patterns and regular dental health monitoring by a dentist or dental hygienist.

**BACKGROUND:** This study is a trial to compare the effects and outcomes of three different bariatric procedures performed in two centers. Standard Roux-en-Y gastric bypass was performed by Dr. Norman Samuels in Fort Lauderdale (Florida); vertical banded gastroplasty and laparoscopic adjustable silicone gastric banding were done in Hallein (Salzburg) by Dr. Emanuel Hell and Dr. Karl Miller. **METHODS:** In a prospective comparative study 30 matched patients from each group were followed to assess post-operative improvement in health status and quality of life, to compare the three different techniques. The Bariatric Analysis and Reporting Outcome System (BAROS) as described by Oria and Moorehead has been used for evaluation. **RESULTS:** The observation time was at least 3 years (3 to 8 years) in each individual case. A significant increase in quality of life and health status in 75% of the surgically-treated patients was observed when compared with a non-operated control group of morbidly obese patients. **CONCLUSIONS:** By utilizing BAROS it has been found possible to compare the results of different procedures done by different surgeons with different techniques, utilizing patients from different cultures and with different languages. The results of this comparative study favor the standard gastric bypass for the treatment of morbid obesity. This operation is superior to purely gastric restrictive procedures in weight loss and improvement of quality of life.


**BACKGROUND:** Constipation is an occasional problem after gastric banding and is often caused by insufficient liquid intake. As a result, the use of laxatives is widespread in such patients. Depending on the laxative, improper use can lead to bolus obstruction above the band, as occurred in this case. **Case Report:** A 59-year-old female with uncomplicated laparoscopic adjustable gastric banding presented 2 months after surgery with food and liquid intolerance and dysphagia after ingestion of a granular bulking laxative. Despite deflating the band, the bolus could not be washed out. Endoscopic extraction was required, revealing a 4x2 cm bolus of the laxative and a small compression ulcer. **DISCUSSION:** Patients not complying with nutritional recommendations after gastric banding may have insufficient liquid intake and, consequently, constipation. Under these conditions, the use of a granular bulking laxative entails the risk of esophageal obstruction above the band. **CONCLUSION:** Nutritional counseling after gastric banding should include the recommendation of liquid intake of at least 1.5 l/day. If constipation occurs, osmotic or paraffin oil laxatives should be used instead of bulking laxatives.
BACKGROUND: Roux-en-Y gastric bypass (RYGBP) leaves a large blind gastric segment, which is inaccessible for conventional endoscopy. METHOD: A case is reported, describing a variation of laparoscopic RYGBP by partitioning the stomach by an inflatable band rather than by stapling or division. RESULTS: The stomach was partitioned into a proximal 15 cc pouch and a distal part by an adjustable gastric band. A RYGBP was fashioned from the proximal pouch. 9 patients were treated with this technique: 7 as an initial procedure and 2 after previous gastric banding which had been followed by insufficient weight loss. 1 of these latter patients developed erosion of the band through the gastrojejunostomy 7 months postoperatively. CONCLUSION: Laparoscopic proximal RYGBP with inflatable-band gastric partitioning is feasible. Erosion of the band though the gastrojejunostomy, however, might be a serious side-effect of this technique.

614. Himpens J., Cadiere G.
    Laparoscopic Bariatric Redo Surgery,
    Obesity Surgery, 13, 2003, 518.
    (LAP-BAND® System Congress Presentation Abstract)

615. Himpens H, Dapri G, Cadiere G,
    A Prospective Randomized Study between Laparoscopic Gastric Banding and Laparoscopic Sleeve Gastrectomy: Results after 1 and 3 Years,
    (LAP-BAND® System Article)

No abstract available
BACKGROUND: Gastric pacing has gained popularity as an effective and safe minimally invasive procedure to treat morbid obesity. This study evaluates the outcome of gastric pacing as a bariatric re-do procedure in patients who developed failure after adjustable gastric banding (AGB) due to band migration.

METHODS: 8 patients were enrolled in this analysis. After implantation of an AGB, they had developed band failure due to band migration. The implantable gastric stimulator (IGS) was implanted laparoscopically as a second-line operation after gastroscopic removal of the band.

RESULTS: Median time (range) from AGB complication to implantation of the IGS was 42 (10.3-50.3) months. During that time, all 8 patients had regained significant weight. All IGS devices could be implanted laparoscopically, without intra- or perioperative complications. The minimal body weight following IGS implantation was reached after 5 (0-12) months. The median observation time was 23 (11.3-27.5) months. 1 year after IGS implantation (n=7), median weight was 116 (98-165) kg, equivalent to a median BMI of 41.1 (36.0-55.8) kg/m(2), which is not statistically different to preoperative values and therefore prompted us to stop our ongoing trial. In all but 2 patients, the IGS device was explanted. During the same procedure, patients underwent a gastric sleeve resection (n=4) or a Roux-en-Y gastric bypass (n=2).

CONCLUSION: The implantation of an IGS was an ineffective second-line operation after AGB migration.
BACKGROUND: Until recently, surgery for obesity was not done in Slovakia. After preparation in workshops, the authors began to perform laparoscopic adjustable gastric banding. Their laparoscopic work is based on a 7-year experience in laparoscopy. METHODS: From December 1997 to May 1998, 14 procedures were done. The laparoscopic adjustable gastric band was used in all procedures. The group consisted of 8 women and 6 men. Their ages ranged from 30 to 53 years (mean 43), the body mass index was 37-56 (average 46.2), the hospital stay was 3-7 days (4.8), and the operating time was 75-285 minutes (145.3). A five-trocar technique was used. RESULTS: Weight loss in the first month ranged from 9 to 15 kg. In follow-up, the weight loss averaged 3-4 kg monthly. Up to the time of writing, no band had been adjusted. Intraoperative hemorrhage occurred in two patients. No conversion was done. One patient underwent reoperation and removal of the band because of obstruction of the stoma caused by profuse vomiting after enormous intake of food. CONCLUSIONS: Despite a small early series, the procedure seems to be safe and well tolerated by patients, with sufficient early weight loss.

BACKGROUND: From December 1997 to December 1998, 25 laparoscopic adjustable silicone gastric banding (LASGB) procedures were done without previous experience in bariatric surgery. Body mass index (BMI) ranged from 37 to 57 kg/m2 (average 45.5 kg/m2). METHODS: Retrospective analysis of the 1-year experience was done. Operating time was measured, and BMI and complications were reviewed. RESULTS: Five complications were observed. There was a complication rate of 20%. On two occasions, it was gastric wall slippage, and both were corrected laparoscopically. In one patient, the intussusception of the gastric wall through the band resulted after profuse vomiting. Removal of the band was necessary, with conversion to an open procedure. On two occasions, the infection of the port-site was observed, in one of these patients, port removal was necessary. No antibiotic prophylaxis was used. CONCLUSION: Despite lack of experience in bariatric surgery in these laparoscopic surgeons, the complications with LASGB appear to be acceptable. Although prior bariatric surgical experience is preferable.
622. Holeczy P., Medveck V., Holeczyova A., Neda L.,
    Lowering the Complications Rate in LAP-BAND® Procedures By Cooperation and Experience,
    (LAP-BAND® System Congress Presentation Abstract)

623. Holeczy P., Novak P., Kralova A.,
    30% Complications with Adjustable Gastric Banding: What Did We Do Wrong?
    (LAP-BAND® System Article)

**BACKGROUND:** The authors analyzed the complications in patients following laparoscopic adjustable gastric banding (LAGB) for morbid obesity. **METHODS:** Retrospective analysis of the 36 LAGB patients was done. The operations were performed from December 1997 to the December 1999 using the Lap-Band. **RESULTS:** 11 complications occurred. Most common was port-site infection or port migration (5 patients). These complications were termed minor. In 3 patients, slippage of the gastric wall was observed, all corrected laparoscopically. In another 3 patients, removal of the band was necessary for poor patient compliance (1), for intussusception of the gastric wall through the band with occlusion of the stoma (1), and for infection of the band (1). These complications were termed major. The overall complication rate was 30.5%. **CONCLUSION:** Compared to the literature, our complication rate was rather high. Based on our analysis, the following measures are recommended: 1) antibiotic prophylaxis; 2) drainage of the port-site; 3) proper band and port placement and fixation; 4) closer psychological evaluation and follow-up. By these measures, hopefully we can obtain better results in the future.

624. Holeczy P., Novack P., Milan O., Loboda O., Marian C.,
    Redo Operations Following LASGB,
    (LAP-BAND® System Congress Presentation Abstract)

    How Did Experience Influence the Results of Laparoscopic Gastric Banding?
    *Obesity Surgery*, 16, 2006, 993.
    (LAP-BAND® System Abstract)
BACKGROUND: Despite impressive results with the Lap-Band in Europe and Australia, the early Food and Drug Administration trial in the United States showed fairly poor results. This prospective study attempts to determine if the Lap-Band can produce effective weight loss in morbidly obese Americans. METHODS: Five hundred four consecutive patients have undergone placement of the Lap-Band (Inamed). Four hundred fourteen patients were women (82%) and 90 were men (18%). The median preoperative weight was 138 kg, and the preoperative median body mass was 49 kg/m². RESULTS: Five hundred two bands were placed laparoscopically. One was converted to an open procedure because of lack of exposure, and one was placed open because of multiple previous abdominal surgeries. Median operating time was 50 minutes, and median length of stay was 1.8 days. Percent excess weight loss at 6, 12, 24, and 36 months for all patients was 36%, 50%, 61%, and 65%, respectively. Complications occurred in 96 patients (19%) primarily consisting of port tubing separations, slips, postoperative dysphagia, and port infections. There was one (.2%) mortality. CONCLUSIONS: The Lap-Band system is an effective tool for weight loss surgery in morbidly obese patients in the United States.

627. Hong D., Jan J., Patterson E.,
Preoperative Weight Loss Predicts Short-Term Postoperative Weight Loss Following LAGB,
(LAP-BAND® System Congress Presentation Abstract)

628. Hong D., Jan J., Patterson E.,
Preoperative weight loss predicts short-term postoperative weight loss after laparoscopic gastric band,
Surgery for Obesity and Related Diseases 1, 2005, 241.
(LAP-BAND® System Abstract)

629. Hong D, Jan J, Patterson E,
Super-Super Obese Patients Can Safely and Effectively Undergo Laparoscopic Bariatric Surgery,
Surgery for Obesity and Related Diseases, 2, 2006, 316.
(LAP-BAND® System Abstract)
630. Hörchner R., Tuinebreijer W.,
Improvement of Physical Functioning of Morbidly Obese Patients Who Have Undergone a LAP-BAND® Operation: One Year Study,
*Obesity Surgery*, 9, 1999, 399-402.
(LAP-BAND® System Article)

BACKGROUND: The Netherlands has a population of 20,000 morbidly obese patients, an average of 350 of whom per year undergo a stomach reduction operation involving the surgical placement of a Lap-Band. The quality of life (QOL) of a sample of female patients who underwent this operation was studied in a 1-year postoperative study. METHODS: The Medical Outcome Study Short Form-36 (MOS SF-36) was used to assess 1-year postoperative quality of life among a sample of 39 female patients aged 19-53 years. QOL was measured at most 20 h preoperatively and 1 year postoperatively using a randomized pretest/posttest design. Statistical data, after transformation, were analyzed with SPSS Version 7.5 for Windows 95. RESULTS: The response rate of 92.9% of patients polled was good, in contrast to earlier findings with this measuring instrument. Mean body mass index (BMI) declined from 40.86 kg/m² preoperatively to 33.14 kg/m² 1 year postoperatively. QOL improved on all scores in the MOS SF-36. Internal consistency of the scales used was high. CONCLUSIONS: The response rate to the MOS SF-36 questionnaire was high. The surgical placement of a Lap-Band resulted in a significant improvement of QOL (1 year postoperatively) on all scores used. The internal consistency of the scales used was high.

631. Hörchner R., Tuinebreijer W.,
Pre-Operative Preparatory Program Has No Effect on Morbidly Obese Patients Undergoing a LAP-BAND® Operation,
(LAP-BAND® System Article)

BACKGROUND: A preoperative preparatory program may help morbidly obese patients cope with postoperative pain and vomiting, and reduce length of nursing care. METHODS: A preoperative preparatory program was given to randomly selected morbidly obese women about to undergo a Lap-Band stomach reduction operation. RESULTS: Statistical testing of the results of the program against a control group of patients who did not receive the program revealed beneficial differences between the two groups in terms of postoperative pain, analgesic use, postoperative vomiting, and duration of nursing care. CONCLUSION: The differences were not statistically significant, although the reaction of patients who received the program was positive.
BACKGROUND: Quality of life (QoL) was tested in a 2-year postoperative study using the Medical Outcome Study Short Form 36 (MOS SF-36) to assess preoperative and 1 and 2 year postoperative QoL among one group of female patients (group 1, n = 42) and a 2 year postoperative QoL study in a second group of female patients (group 2, n = 9) who underwent a stomach reduction operation involving open surgical placement of a Lap-Band during the year 1997. METHODS: The QoL of 42 patients (group 1) was assessed at most 20 hours before surgery and 1 and 2 years (12 and 24 months) postoperatively using a randomized pre-test/post-test design. The QoL of 9 patients (group 2) was assessed 2 years (24 months) postoperatively using a randomized post-test design only. The results were compared with the standardized Dutch norm datascale. Statistical data were analyzed with SPSS versions 10.0. RESULTS: The placement of a Lap-Band in group 1 resulted in a significant reduction in Body Mass Index (BMI) in the first and second-year follow-up. Mean BMI declined significantly from 40.7 kg/m2 preoperatively to 33.1 kg/m2 at the 1-year follow-up, to 31.3 kg/m2 at 2-year follow-up. In group 2 BMI also declined significantly from 43.0 kg/m2 preoperatively to 34.2 kg/m2 at 1-year follow-up to 32.1 kg/m2 at the 2-year follow-up. Compared to the MOS SF-36 standardized Dutch norm data, a significant improvement in the QoL was seen on the effect variable bodily pain, mental health and general health perceptions in group 1. Although the bodily pain, general health and mental health perceptions increased significantly 2 years postoperatively (group 1) compared with the Dutch standardized norm data, the preoperative general health and mental health perceptions of morbidly obese patients were, like all other preoperative effect variables, not significantly different from the scores on the Dutch standardized norm scale. CONCLUSION: Although other authors found that QoL improves after surgical-induced weight loss, showing significant improvements on patients’ perception of their health status, these findings were not confirmed in the present study. The findings show only a significant difference in bodily pain, general health and mental health perception before and after surgical intervention and preoperatively in group 1 compared to the Dutch standardized norm data. Because of small sample size (n = 9), no significant results were found in group 2 compared to the Dutch Standardized norm data. Based on earlier and present findings, further study is recommended to ascertain whether the MOS SF-36 is valid in morbidly obese patients and whether the response set has an influence on QoL studies of these patients.
BACKGROUND: The present study was set up to analyze the relationships between eating patterns in morbidly obese patients who had undergone an adjustable silicone gastric banding (ASGB) followed for at least 2 years and morbidly obese patients without a gastric restrictive procedure.

METHODS: Eating pattern was monitored by using the Dutch Eating Behavior Questionnaire in 99 morbidly obese patients (BMI \( \geq 35 \) kg/m\(^2\)) preoperatively and in 31 patients who had undergone a stomach reduction by the Lap-Band followed at least 2 years. Both groups were compared to the Dutch normative scores. RESULTS: In the preoperative group, the scores on emotional eating and external eating were significantly higher than the Dutch normative scores. The scores on restrained eating were preoperatively equal to the Dutch normative scores. Although not significant, the scores in the postoperative group on external eating were lower than the Dutch normative scores and equal on emotional eating. The variable restrained eating postoperatively was significantly higher compared with the preoperative group. On emotional and external eating, the scores postoperatively were significantly lower compared with the preoperative group. CONCLUSIONS: According to the results, surgical treatment using an ASGB or another gastric restrictive operation could be the right solution in patients with an emotional and external eating behavior. Placement of the ASGB has a negative effect on restrained eating behavior.

(LAP-BAND\textsuperscript{®} System Congress Presentation Abstract)
BACKGROUND: Morbid obesity (MO) has reached epidemic proportions and is a major health problem in developed nations. In the adolescent with MO, early intervention can minimize obesity-related comorbidities, avoid premature mortality, improve quality of life, and prevent obesity-related diseases as these patients mature into adulthood. The primary surgical treatment of adolescent patients meeting National Institutes of Health criteria for bariatric surgery has been the gastric bypass (GB). Although GB has led to weight loss and improvement of comorbid conditions, concerns remain over the high incidence of postoperative complications and life-style-altering long-term sequelae of gastrointestinal tract reconstruction. Based on the excellent results from international adult series as well as the authors' own experience of more than 300 adult patients, laparoscopic adjustable gastric banding (LAGB) as an alternative to GB to eligible adolescents was offered. METHODS: After medical, psychologic, and nutritional screening, 4 patients (ages 17-19 years) with a body mass index of 40 or more (range, 40-61) who failed medical attempts at weight loss were selected for LAGB. RESULTS: The operative time was 40 to 90 minutes. All patients were discharged on the day of surgery. There were no early complications. One patient had cholecystitis 6 months after surgery requiring laparoscopic cholecystectomy. For the 4 patients, the amount of excess weight loss was 57% at 30 months, 34% at 12 months, 87% at 7 months, and 15% at 4 months, respectively. CONCLUSIONS: In this preliminary series of the US experience in the use of LAGB for the management of adolescents with MO, the lack of operative morbidity, short operative time/hospital stay, and encouraging initial weight loss mirror the adult experience and illustrate that the LAGB is a safe and effective alternative to GB. These encouraging results support further evaluation of LAGB as a surgical option in a comprehensive adolescent weight loss program.
636. Hotter A., Mangweth B., Kemmier G., Fiala M., Kinzl J., Biehl W.,
Therapeutic outcome of adjustable gastaric banding in morbid obese patients,
Eating Weight Disord. 2003, 218-224.
(LAP-BAND® System Article)

We examined 77 obese patients treated with bariatric surgery in order to analyse treatment success, and compare those with a good or a poor outcome. The subjects, who were recruited one year after undergoing adjustable gastric banding, were asked questions concerning their sociodemographic status, postoperative course, past and present weight status, eating behaviours and difficulties in changing eating habits. Furthermore, we also used two body image questionnaires, and considered the patients’ evaluations of positive and negative changes, as well as their wishes for the future. There were no preoperative differences between the 71% of patients in the good outcome group and the 29% in the poor outcome group. With regard to the postoperative course, the poor outcome group had more problems in adapting to new eating behaviours, experienced significantly more postsurgical complications, and had a persistently negative body evaluation. Both groups were satisfied with their achieved weight loss achieved, and their improved self-esteem and mobility. Adjustable gastric banding seems to be successful in inducing weight loss and allowing a better quality of life. However, factors such as postoperative complications, the ability and willingness to adopt new eating attitudes, and an improved body image seem to be crucial for therapeutic outcome.

637. Hu MG, Zheng CA, Ke CW, Yin K., Li JH, Hu B., Wu YF, Cao P., Zou DJ, Zhang J.,
Effect of weight loss induced by laparoscopic adjustable gastric banding on immunity of morbid obesity,
(LAP-BAND® System Article)

OBJECTIVE: To compare the immunity of morbid obesity (MO) before and after laparoscopic adjustable gastric banding (LAGB). METHODS: 15 cases, with a mean body mass index (BMI) of 35.8 kg/m(2), were treated by LAGB from Jun. 2003 to Oct. 2003 in our department. Patients’ immune parameters were determined preoperatively and 1, 3 and 6 months postoperatively. 15 cases with a normal BMI (23.6 kg/m(2)) were set as controls. RESULTS: Before surgery, the MO had a significant lower level of CD(4)(+), CD(4)(+)/CD(8)(+) and a higher level of serum interleukin-2 (IL-2), Interleukin-6 (IL-6) than the controls (P < 0.01). There was a significant reduction of weight and BMI 6 months postoperatively (P < 0.01). At the same time, CD(4)(+) increased and serum IL-2 decreased significantly. But CD(4)(+)/CD(8)(+) and serum IL-2, IL-6 were still abnormal compare to the controls. CONCLUSIONS: MO may combined with an abnormal immunity. But after enough weight loss induced by LAGB, it can be partly reversed.

638. Hudson S., Dixon J., O’Brien P.,
Sweet Eaters Do Not Have Poor Weight Loss After Gastric Restrictive Surgery: Is it Time to Bury the Myth?,
Obesity Surgery, 12, 2002, 463.
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: It is common belief that sweet eaters will do poorly after gastric restrictive surgery. There is scant evidence for this and significant evidence that sweet eating behavior is not predictive of weight outcome. Preoperative and current sweet eating behavior was assessed in subjects who have had Lap-Band surgery, to find if this influenced weight outcomes. METHOD: 200 unselected patients who had bands inserted for > 1 year completed a questionnaire regarding preoperative sweet eating behavior. The last 100 patients also reported current sweet eating behavior. Sweet eating was scored using a standard dietary questionnaire. RESULTS: Mean +/- SD % excess weight loss at 1 year (% EWL1) for the 100 with the highest preoperative sweet eating scores (SES) was 47.1 +/- 16% compared with a loss of 48.2 +/- 16% by those with the lowest SES (P = 0.64). Analysis showed no significant linear or non-linear correlation between the SES and the % EWL. For the highest quintile of SES, the EWL1 was 47.3 +/- 14% and for the lowest was 46.1 +/- 16% (NS). Sweet eaters were younger (r = -0.21, P = 0.003) and had higher fasting insulin concentrations (r = -0.18, P = 0.03). Preoperative SES had no influence on % EWL1 after controlling for factors known to influence weight loss. % EWL at 2 years (n = 130) and 3 years (n = 88) were not different for sweet eaters and non-sweet eaters. Current sweet eating tendency (n = 100) also had no impact on % EWL. CONCLUSION: Sweet eaters do not have less favorable weight outcomes following Lap-Band surgery. Our study confirms the findings of two other major studies. Sweet eating behavior should not be used as a preoperative selection criterion for bariatric surgery.
643. Husemann B., Sonnenberg D.,
Long Term Results after VBG and LAP-BAND,
(LAP-BAND® System Congress Presentation Abstract)

644. Husemann B., Husemann B.,
The Risk of Malnutrition after Gastric Restrictive Surgery for Morbid Obesity,
(LAP-BAND® System and SAGB Abstract)

645. Iacobellis G., Silecchia G., Ribaudo M., Leonetti F., Basso M., Elmore U., Pecchia A.,
Rizzello M., Bacci V., Di Mario U., Basso N.,
Low Plasma Ghrelin Levels After Laparoscopic Gastric Bypass and Adjustable Gastric Banding (LAGB) In Morbid Obese Patients,
(LAP-BAND® System Congress Presentation Abstract)

646. Iannelli A., Gugenheim J.,
Laparoscopic Roux-en-Y gastric bypass, but not rebanding, should be proposed as a rescue procedure for patients with failed laparoscopic gastric banding,
(LAP-BAND® System Article)

No abstract available

647. Iannelli A., Facchiano E., Sejor E., Baque P., Piche T., Gugenheim J.,
Gastric Necrosis: A Rare Complication of Gastric Banding,
(LAP-BAND® System Article)

In the last decade, laparoscopic gastric banding has become an increasingly popular surgical option for morbidly obese patients, because of the minimally invasive and easy surgical technique, its reversibility, and the possibility to calibrate the stoma. Gastric necrosis, as a complication of laparoscopic gastric banding, has been only rarely reported. Herein described is the case of a 45-year-old obese patient with gastric necrosis occurring 2 years after the placement of the band. After initial conservative management, the patient underwent urgent surgery. A huge anterior gastric prolapse through the band was found to be responsible for necrosis of the herniated stomach. An upper polar gastrectomy was performed. The mechanisms responsible for this life-threatening complication are discussed.
648. Iordache N., Vizeteu R., Iorgulescu A., Smeu B., Iordache M.,
The Romanian Starting Experience in Laparoscopic Gastric Banding for Morbid Obesity,
(LAP-BAND® System Congress Presentation Abstract)

649. Iovino P., Angrisani L., Tremolaterra F., Nirchio E., Santoro T., Borrelli M., Ciannella F.,
Sabbatici F., Mazzacca G.,
LAP-BAND® is the Treatment of Choice for Obese Patients with Gastroesophageal Reflux Disease,
Obesity Surgery, 10, 2000, 327.
(LAP-BAND® System Congress Presentation Abstract)

650. Iuppa A., Salluzzo S., Villara S., Finocchiaro C., Bratta R., Licciardell C., Frittitta L.,
Short Term Complications in Patients Treated with BIB® and/or LAP-BAND® for Morbid Obesity,
(LAP-BAND® System and BIB® System Congress Presentation Abstract)

651. Jacobsen G., Holtermann A., Holtermann M., Berger R., Goldstein A., Moser F., Horgan S.,
Laparoscopic Adjustable Gastric Banding for the Treatment of Adolescent Morbid Obesity in the U.S.: Preliminary Experience,
ASBS Presentation, 2004, 43.
(LAP-BAND® System Congress Presentation Abstract)

652. Jan C., Hong D., Patterson E.,
Laparoscopic adjustable gastric banding versus laparoscopic gastric bypass for morbid obesity: A single-institution comparison study of early results,
(LAP-BAND® System Congress Presentation Abstract)
Laparoscopic Roux-en-Y gastric bypass (LRYGB) and laparoscopic adjustable gastric banding (LAGB) are common surgical procedures for morbid obesity, but few studies have compared LRYGB and LAGB. All patients who underwent LRYGB and LAGB by a single surgeon at Legacy Health System were identified from a prospectively maintained database. Preoperatively, most patients were allowed to choose between LRYGB and LAGB. Age, sex, body mass index (BMI), complications, mortality, and weight loss were examined. From October 2000 to November 2003, 219 patients underwent LRYGB and 154 patients underwent LAGB. Mean preoperative BMI was 49.5 +/- 6.6 and 50.9 +/- 9.4 kg/m², respectively (P = 0.10). Mean age was 42 +/- 9 and 47 +/- 11 years (P < 0.001). The LAGB group had a higher proportion of male patients (21% versus 7%, P < 0.001). Patients undergoing LRYGB had longer operative times (134 versus 76 minutes, P < 0.001), more blood loss (43 versus 28 ml, P < 0.01), and longer hospital stays (2.6 versus 1.3 days, P < 0.001). Excess weight loss was 35% for LRYGB versus 19% for LAGB at 3-month follow-up (P < 0.001), 49% versus 25% at 6 months (P < 0.001), 64% versus 36% at 12 months (P < 0.001), 70% versus 45% at 24 months (P < 0.001), and 60% versus 57% at 36 months (P = 0.85). Major complications occurred in 7% and 6% (P = 0.58) and minor complications occurred in 18% and 20% (P = 0.65) of patients, respectively. Reoperation occurred in 21 patients (10%) after LRYGB and 31 (20%) patients after LAGB (P < 0.01). Of patients undergoing reoperation, eight (38%) LRYGB patients and one (3%) LAGB patient required open laparotomy. One death occurred in each group. Patients undergoing laparoscopic adjustable gastric banding have shorter operative times, less blood loss, and shorter hospital stays compared with laparoscopic gastric bypass patients. The incidence of major and minor complications is similar; however, morbidity after LRYGB is potentially greater and the reoperation rate is higher in the LAGB group. Early weight loss is greater with gastric bypass, but the difference appears to diminish over time.
BACKGROUND: Obesity is a growing health problem that contributes to numerous life-threatening or disabling disorders, including coronary artery disease, hypertension, type 2 diabetes mellitus, hyperlipidemia, degenerative joint disease, and obstructive sleep apnea. Significant weight reduction in the morbidly obese improves or reverses associated illness and benefits well-being. The purpose of the SAGES Appropriateness Conference was to summarize the state of the art for open and laparoscopic operations for the morbidly obese. METHODS: The English literature comparing bariatric procedures was reviewed and grouped by level of evidence by three surgeons (BS, LV, and CC). From more than 1,500 articles, all conference participants were provided with reprints and table summaries of no less than 50 selected manuscripts. Ten experts were requested to present reviews and make evidence-based arguments for and against the open and laparoscopic approaches in written format. An expert panel of six surgeons, including an ethicist and patient, commented on implications of data presented. The finalized statement was e-mailed to all participants for approval and comment. RESULTS: Consensus statements were achieved on various aspects of morbid obesity, including indications for surgery, resolution of comorbid illnesses with significant weight loss, and the importance of committed bariatric program. Our panel of experts agreed, in general, to the advantages of laparoscopic approaches compared to open operations in skilled hands. CONCLUSIONS: Laparoscopic Roux-en-Y gastric bypass (RYGB) affords improved short-term recovery compared to open gastric bypass. Laparoscopic adjustable banding can be performed with lower average mortality than either RYGB or any of the malabsorptive operations, and it produces variable degrees of short-term weight loss. Prospective randomized trials are needed to compare gastric bypass, malabsorptive, and restrictive procedures.

656. Kabelac K., Vacek Z.,
Unusual Complication after Gastric Banding,
(LAP-BAND® System Congress Presentation Abstract)

657. Karaindros CK, Papaioannou MA, Tassioulis AA, Giannakakis PP, Gabriel G., Sigalas VI, Gabriel SG,
The influence of laparoscopic adjustable gastric banding on gastroesophageal reflux and hiatal hernia,
Obesity Surgery, 15, 2005, 935.
(LAP-BAND® System Abstract)
658. Karaindros CK, Papaioannou MA, Tassioulis AA, Giannakakis PP, Gabriel G., Sigalas VI, Gabriel SG,
Insufficient weight loss following laparoscopic adjustable gastric banding: results after conversion to biliopancreatic diversion with duodenal switch,
*Obesity Surgery, 15, 2005, 940.*
(LAP-BAND® System Abstract)

659. Karaindros CK, Papaioannou MA, Tassioulis AA, Giannakakis PP, Gabriel StrG, Sigalas VI, Gabriel SG,
Biliopancreatic diversion combined with duodenal switch and laparoscopic adjustable gastric banding in morbidly obese patients: a novel approach,
*Obesity Surgery, 15, 2005, 956.*
(LAP-BAND® System Abstract)

Band slippage after laparoscopic adjustable gastric banding: etiology and treatment,
*Surgical Endoscopy, e-pub ahead of print, November 2004.*
(LAP-BAND® System Article)

BACKGROUND. Laparoscopic adjustable gastric banding is a safe and effective procedure for the management of morbid obesity. However, band slippage is a common complication with variable presentation that can be rectified by a second laparoscopic procedure. METHODS. We studied case series of 125 consecutive patients who suffered from band slippage between November 1996 and May 2001 from a group of 1,480 laparoscopic adjustable gastric banding procedures performed during this time. The decision of whether to remove or replace/reposition the band was made prior to the operation, although the specific method used when replacement or repositioning was deemed suitable was determined by the operative findings. A laparoscopic approach was used in all but three patients. RESULTS. A total of 125 patients (8.4%) suffered band slippage (posterior slippage, 82.4%; anterior slippage, 17.6%). In 70 patients (56%), the band was removed, whereas in 55 patients (44%) it was repositioned or replaced immediately. Of these 55 patients, six underwent later removal, five due to recurrent slippage and one due to erosion. Fourteen patients suffered complications, including gastric perforation (n = 8), intraoperative bleeding (n = 1), postoperative fever (n = 3), aspiration pneumonia (n = 1), upper gastrointestinal bleeding (n = 1), and pulmonary embolism (n = 1). CONCLUSION. Band slippage is not a rare complication after laparoscopic adjustable gastric banding. The decision to remove or replace the band or convert to another bariatric procedure should be made preoperatively, taking both patient preference and etiology into consideration. Short-term results indicate that band salvage is successful when the patient population is chosen correctly.
661. Keidar A., Carmon E., Szold A., Abu-Abeid S.,
Port complications following laparoscopic adjustable gastric banding for
morbid obesity,
*Obesity Surgery, 15, 2005, 361-365.*
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) has gained widespread
acceptance. However, the technique has problems intrinsic to the material wear and tear around the
port and connecting tubing that can lead to failure. Port complications are considered to be minor;
however, few studies have analyzed them, and the optimal technique of port implantation and
management has not been elucidated. METHODS: All patients who suffered from complications
involving the tubing or access-port were included in this study. Their complaints, imaging studies,
operative reports and hospitalization files were retrospectively reviewed. RESULTS: 1,272 of the
patients were available for a mean follow-up period of 37 months. During this time, 91 patients
(7.1%) experienced port complications that required 103 revisional operations. Of these patients, 62
had system leaks, 19 infectious problems, and 10 miscellaneous problems requiring operative
correction. Overall port problems led to band removal in 6 patients, and replacement in 1 patient.
CONCLUSION: Access-port complications after the Lap-Band procedure are among the most
common and annoying ones, and can render the device susceptible to failure. Careful surgical
technique and routine use of radiologic guidance for band adjustments are the keys to avoiding
complications.

662. Kellum J.,
Editorial – Gastric Banding,
(LAP-BAND® System - Other)

663. Kennedy C., Szomstein S., Zundel N., Soto F., Lo Menzo D., Podkameni D., Villares A., Higa
G., Rosenthal R.,
Initial Experience with Laparoscopic Adjustable Gastric Banding at the Cleveland Clinic
Florida: Criteria for Placement and Reasons for Failure after 100 Consecutive Patients,
*ASBS Presentation, 2004, 15-16.*
(LAP-BAND® System Congress Presentation Abstract)

664. Khatkov I, Gurchenkova EY, Makhonina EM,
Reoperations in Cases of Complications after Laparoscopic Gastric Banding,
*Obesity Surgery, 16, 2006, 1008.*
(LAP-BAND® System Abstract)
665. Kho M., Lim P.,
   LAP-BAND®: A Surgical Aid in the Treatment of Morbid Obesity,
   *Health Digest, Sep/Oct 1999, 18-31.*
   (LAP-BAND® System Article)

   **No abstract available**

   Gallstone Formation after Weight Loss following Gastric Banding in Morbidly Obese
   Dutch Patients,
   *Obesity Surgery, 16, 2006, 592-596*
   (LAP-BAND® System Article)

**BACKGROUND:** Obesity is a risk factor for the development of gallstones. Rapid weight loss may be an even stronger risk factor. We retrospectively assessed the prevalence and risk factors of gallstone formation after adjustable gastric banding (AGB) in a Dutch population. **METHODS:** All patients who underwent AGB between Jan 1992 and Dec 2000 for morbid obesity were invited to take part in this study. Transabdominal ultrasonography of the gallbladder was performed in those patients without a prior history of cholecystectomy (Group A). Additionally, 45 morbidly obese patients underwent ultrasonography of the gallbladder before weight reduction surgery (Group B). **RESULTS:** 120 patients were enrolled in the study (Group A). Prior history of cholecystectomy was present in 21 patients: 16 before and 5 after AGB. Ultrasonography was performed in 98 patients: gallstones were present in 26 (26.5%). On multivariate analysis, neither preoperative weight, nor maximum weight loss, nor the interval between operation and the postoperative ultrasonography were determinants of the risk for developing gallstone disease. Prevalence of gallstones was significantly lower in the morbidly obese patients who had not yet undergone weight reduction surgery (Group B). **CONCLUSIONS:** Rapid weight loss induced by AGB, is an important risk factor for the development of gallstones. No additional determinants were found. Every morbidly obese patient undergoing bariatric surgery must be considered at risk for developing gallstone disease.
Laparoscopic gastric bypass (LGBP) is the gold standard operation for long-term weight control in the United States. Laparoscopic adjustable silicone gastric banding (LASGB) is the preferred operative method for morbid obesity worldwide. Limited data are available comparing the two procedure in the United States. This study compares weight loss, complications, and early outcome of comorbidity resolution in patients who underwent LGBP versus LASGB. A review of prospectively collected data was performed on 392 patients undergoing primary LGBP (n = 232) and LASGB (n = 160) procedures between February 2001 and July 2004. Differences in percentage excess weight lost (%EWL) at 3, 6, 12, 18, and 24 months postop, improvement or resolution of comorbidities, and complications across procedure types were evaluated. Mean initial body mass index between groups was not significantly different (LGBP 47.2 vs LASGB 47.1, p < 0.53). There were significant differences in age, gender, and self-reported sweet-eating behavior between operative groups. There was a significantly greater %EWL in patients who underwent LGBP compared to patients of the LASGB groups 3, 6, 12, and 18 months after surgery. There were no significant differences in resolution or improvement of comorbidities between the groups. Although LGBP patients experienced more complications compared to LASGB patients (5.6 vs 4.3%, respectively; p < 0.56), this did not reach statistical significance. Early after surgery, LGBP patients lose more weight than LASGB patients but have similar improvements in comorbidities. Further follow-up is needed to determine the relative long-term efficacy of these procedures.
BACKGROUND: Individual band-filling on demand of the morbidly obese patient is a major advantage of adjustable gastric banding. An increasing number of patients results in an enormous amount of outpatient follow-up visits, which inspired us to compare a stepwise band-filling strategy with a single bolus injection 4 weeks after the operative procedure. METHODS: 40 consecutive patients were prospectively randomized in 2 groups. 20 patients (Group A) had stepwise band-filling during 6 monthly ambulant visits. 20 patients (Group B) had a bolus-filling 4 weeks postoperatively and had the next follow-up after another 5 months. Weight loss, complications and procedural costs during follow-up were compared. RESULTS: Patients of both groups did not differ in age, gender or preoperative BMI. There was no significant difference postoperatively in excess weight lost (EWL) after 9 months. Postoperative complications did not differ significantly. By means of bolus-filling, a 60% and 53% reduction in outpatient clinical work was achieved within the 6 and 9 months, respectively. CONCLUSION: Postoperative management after gastric banding takes advantage of a single bolus-filling during the first postoperative 6 months due to sufficient weight loss, low complication rate but significant reduction of personal, financial and logistic efforts.
670. Knerr I, Herzog D, Rauh M, Rascher W, Horbach T,
Leptin and ghrelin expression in adipose tissues and serum levels in gastric banding patients
(LAP-BAND® System Article)

**BACKGROUND:** To determine how leptin and ghrelin are expressed in the adipose tissues of obese adults undergoing gastric banding (LAGB), and to correlate tissue expression with serum concentrations and parameters of the metabolic syndrome. **MATERIALS AND METHODS:** A cross-sectional analysis of 92 patients: 61 obese patients with a body mass index (BMI) 49.2 +/- 1 kg m\(^{-2}\) received LAGB, 20 patients underwent band exchange (BMI, 36.6 +/- 1.4 kg m\(^{-2}\)) and 11 adult patients (BMI, 24.3 +/- 0.6 kg m\(^{-2}\)) with fundoplication served as controls. Clinical data such as BMI and blood pressure were evaluated along with subcutaneous and visceral adipose tissue gene expression and fasting levels of leptin and ghrelin. Tissue transcripts were measured using real-time PCR, serum protein concentrations radio-immunologically. **RESULTS:** Leptin gene expression was highest in the primary LAGB group and more pronounced in subcutaneous fat in both sexes (P < 0.0001). Serum leptin concentrations were highest in the LAGB group (P < 0.001), whereby women exhibited higher serum levels than men. Leptin concentrations correlated positively to expression in subcutaneous fat (P < 0.0001), and leptin expression was also correlated to BMI and systolic blood pressure. We detected ghrelin gene expression in both types of fat. The ghrelin mRNA amounts in adipose tissues were similar in both sexes and comparable within groups; serum concentrations were lower in patients with primary LAGB than in controls (P < 0.05). **CONCLUSIONS:** Human adipose tissue expression of leptin is weight-course dependent and ghrelin is constitutional. Serum levels of leptin, but not of ghrelin, are indicative of an adaptive pattern of local gene expression in obese subjects undergoing weight reduction.

671. Knoblock L., Horgan S., Elli F., Jacobsen G., Edison M., Berger R.,
Laparoscopic Adjustable Gastric Banding Does Not Cause Esophageal Dysmotility,*
*Obesity Surgery, 13, 2003, 200.*
(LAP-BAND® System Congress Presentation Abstract)

672. Kocian R., Spahn D.,
Bronchial Aspiration in Patients After Weight Loss Due to Gastric Banding,*
*Anesth Analg, 100, 2005, 1856-1857.*
(LAP-BAND® System Article)

Laparoscopic gastric banding is a surgical treatment of morbid obesity. There are no specific recommendations concerning anesthesia induction in patients having gastric banding. After recent experience of two bronchial aspirations during anesthetic induction in patients with gastric banding, we concluded that esophago-gastric peristalsis in these patients is altered. Such patients should consume only liquid meals the day before the operation, and we propose a rapid-sequence induction as the anesthetic technique. In patients with an expected difficult airway, an awake intubation may be considered.
The use of endoscopic surgery has increased in gastrointestinal surgery since the introduction of laparoscopic cholecystectomy. It was the aim of this study to investigate the impact of endoscopic procedures in 1998. Laparoscopic cholecystectomy, fundoplication, repair of perforated peptic ulcer, gastric banding procedure, sigmoid resection for diverticulitis, and ileal pouch-anal anastomosis were investigated using techniques of technology assessment. Feasibility, efficacy, and effectiveness were used to evaluate the different types of operation. The statements were graded by three categories of evidence. Laparoscopic cholecystectomy and fundoplication have passed the test. Laparoscopic repair of perforated duodenal ulcer, gastric banding for morbid obesity, and sigmoid resection for diverticulitis are feasible and efficient but not effective today. Laparoscopy-assisted ileal pouch-anal anastomosis has been shown to be feasible but is not yet efficient and effective.

BACKGROUND: Surgical treatment is the most effective method for weight reduction in morbid obesity. The most common operations are gastric banding and gastric bypass. The effect of these interventions on esophageal function and gastroesophageal reflux symptoms has not been adequately investigated. METHODS: Patients undergoing obesity surgery were prospectively included in an observational study. Before surgery, each of the 53 patients underwent pulmonary function tests, esophageal manometry, and gastroscopy. Drug medication and esophageal symptoms were recorded. "Non-sweet eater" patients with good compliance underwent laparoscopic adjustable gastric banding (LAGB). In "sweet-eating" or non-compliant patients, gastric bypass (GBP) was carried out. RESULTS: Between July 1997 and April 2000, 53 patients (9 males and 44 females) were consecutively operated on. 32 patients (median BMI 46.4 kg/m2 +/- 5.4 SD) received LAGB, and 21 patients (BMI 54.0 kg/m2 +/- 10.7) GBP. Median follow-up was 22 months, and only 3 patients were lost to yearly follow-up. Preoperatively, 6 LAGB patients had reflux symptoms, which postoperatively resolved in 3 of them, while the other 3 noted no change. Three patients who had no preoperative reflux symptoms developed them after LAGB. In the GBP group, no patient had esophageal dysmotility or incompetent esophageal sphincter function pre- or postoperatively. The incidence of postoperative esophageal symptoms was independent of operative technique (Wilcoxon U-Test: p = 0.75). CONCLUSION: The present results do not show any effect of gastric reduction surgery on postoperative esophageal function or gastroesophageal reflux symptoms.
BACKGROUND: The technique of laparoscopic adjustable gastric banding (LAGB), although relatively well standardized, has some "weak points". METHODS: We analysed the experience of 2 German university clinics in order to suggest technical alternatives that can be helpful in difficult situations. RESULTS: Between April 1997 and May 2002 115 patients in Cologne (87 females, 28 males) with median BMI 49.5 kg/m(2) and mean age 39 years (19-54), and 112 patients in Mainz (91 females, 21 males) with median BMI 48 kg/m(2) and mean age 35 years (18-57) underwent LAGB, using the Lap-Band. LAGB was performed through 5 ports (3 10-mm, 1 18-mm, and 1 5-mm in Cologne and 4 10-mm and 1 18-mm port in Mainz). The pars flaccida technique by means of a fan-shaped Endo-Retractor was used in both clinics. Mean duration of follow-up was 3.2 years (SD 1.0) in the Cologne group with complete investigation in all except 4 patients. In the Mainz group, mean duration of follow-up was 2.7 years (SD 1.0) with complete investigation in all except 9 patients. CONCLUSIONS: Some technical aspects such as induction of pneumoperitoneum, band position, band fixation, band malposition and port-related complications are discussed.
Introduction: This study analyzed the influence of potentially negative predictors such as sweet-eating behavior, super-obesity, social and psychological status, family and education situation, intake of sedative drugs, and the distance between hospital and home on the outcome of laparoscopic adjustable gastric banding (LAGB).

Methods: 77 women and 29 men with mean age 40.6 years (28-47) underwent LAGB. Preoperative mean body weight was 146 kg (99-179), and mean BMI was 48.1 kg/m² (36.4-73.5). The influence of the abovementioned potentially negative predictors on weight loss was the primary end point.

Results: Mean follow-up was 44.6 ± 19.7 months. Follow-up was possible in all but 6 patients. Median excess weight loss (EWL) was 52.1% (range 28.6-72.2%). Univariate analysis revealed no influence of the investigated negative predictors on the weight reduction. Median EWL in 24 sweet-eater patients was 55.6% compared to 55.4% in 82 non-sweet-eaters (P =0.65). A significant difference in the weight reduction was found between super-obese and non-superobese groups (P <0.001).

Conclusions: LAGB should be recommended without limitation as the operation of choice for morbidly obese patients. Gastric bypass operations should be recommended only in cases of unsuccessful LAGB.
PURPOSE OF REVIEW: Bariatric surgery today is the only effective therapy for morbid obesity. Commonly performed procedures include adjustable gastric banding and vertical banded gastropasty, variations of the Roux-en-Y gastric bypass, biliopancreatic diversion or duodenal switch, and mixed procedures. This review discusses key issues in the surgical management of morbid obesity. RECENT FINDINGS: The two most common bariatric procedures performed worldwide are laparoscopic adjustable gastric banding and laparoscopic Roux-en-Y gastric bypass. Controversy exists regarding the best surgical procedure. Weight loss decreases according to the procedures performed in following decreasing order: biliopancreatic diversion, Roux-en-Y gastric bypass, vertical banded gastropasty, adjustable gastric banding. Concerning the complications and quality of life, there is no single operation for morbid obesity without drawbacks. Cost-effectiveness analyses have demonstrated that bariatric surgery is cost effective at less than 50,000 US dollars/quality-adjusted life years. SUMMARY: According to current opinion, gastric restrictive procedures (adjustable gastric banding, vertical banded gastropasty) are generally considered safe and quick to perform, but the long-term outcome and quality of life have been questioned. By contrast, the long-term efficacy of adjustable gastric banding can be improved by the development of new band devices. More complex bariatric procedures, such as the Roux-en-Y gastric bypass or biliopancreatic diversion, have a greater potential for serious perioperative complications but are associated with good long-term outcome in terms of weight loss combined with less dietary restriction.

678. Korenkov M., Sauerland S., Junginger Th.,
       Surery for Obesity,
       (Bariatric Surgery Article)

679. Korenkov M, Weiner R,
       First Experience with the Implantation of the Flowatch-Telemetric Gastric Banding System in the Treatment of Morbid Obesity,
       Obesity Surgery, 16, 2006, 972.
       (LAP-BAND® System Abstract)
BACKGROUND: Preoperative evaluation for bariatric surgery is complex. Our investigation focused on the necessity for upper gastrointestinal (GI) endoscopy as a routine procedure before performing gastric banding. METHODS: A consecutive series of 145 patients underwent laparoscopic adjustable gastric banding (LAGB). Gastroscopy was performed routinely before LAGB. All patients were interviewed before gastroscopy regarding gastroesophageal symptoms. Gastroscopic findings and the results of the interview were blinded and set in comparison. Furthermore, we analyzed whether upper GI symptoms, BMI, age or gender were predictive parameters for pathological findings on gastroscopy. Small hiatal hernia was not considered a clinically relevant finding. RESULTS: Gastroscopy yielded abnormal findings in only 15 patients (10%). There were 8 patients with hiatal hernia, 4 patients with esophagitis, 1 gastric ulcer, 1 erosive gastritis, and 1 gastric polyp. Abnormal findings on gastroscopy did not correlate with age, BMI, or gender. The 18 patients who reported gastroesophageal symptoms were more likely to have abnormal gastroscopic findings (P<0.001). Gastroesophageal symptoms had a sensitivity of 80% and a specificity of 98% in the prediction of a GI abnormality. CONCLUSIONS: The data suggest that it may not be necessary to continue performing gastroscopy in all patients preparing for gastric banding. The data collected support the policy of a selective use of gastroscopy, only focusing on patients suffering from gastroesophageal symptoms. By following this strategy, the rate of preoperative gastroscopies can be reduced safely by 80%.
BACKGROUND/METHODS: Bariatric surgery today is the only effective therapy for morbid obesity. Commonly performed procedures include adjustable gastric banding (AGB) and vertical banded gastroplasty (VBG); variations of Roux-en-Y gastric bypass (RYGB), biliopancreatic diversion or duodenal switch (BPD) and mixed procedures. All these procedures can be performed by open surgery and more recently by laparoscopy. This review discusses key issues in the surgical management of morbid obesity. RESULTS: The two most common bariatric procedures performed worldwide are laparoscopic AGB and laparoscopic RYGB. Controversy exists regarding the best surgical procedure. For example, gastric bypass is the procedure of choice in the United States, while most surgeons in Europe and Australia favor gastric banding. Weight loss decreased according to the procedures performed in following decreasing order: BPD, RYGB, VBG, AGB. CONCLUSION: Concerning the complications and quality of life there is no single operation for morbid obesity without drawbacks. According the currently opinion are gastric restrictive procedures (AGB, VBG) generally considered safe and quick to perform, but the long-term outcome and quality of life, especially with regard to eating patterns, have been questioned. On the other hand the long-term efficacy of AGB can be improved by the development of new band devices. More complex bariatric procedures, such as RYGB or BPD, have a greater potential for serious perioperative complications but are associated with good long-term outcome in terms of weight loss combined with less dietary restriction.

682. Kormanova K., Fried M., Hainer V., Kunesova M.,
Is Laparoscopic Adjustable Gastric Band a Day Surgery Procedure?
(LAP-BAND® System Congress Presentation Abstract)

683. Kormanova K., Fried M.,
Managing Patients with Gastric Bands – Role of Pre-and Postoperative Behavioral Intervention and Education in Long-Term Treatment Results and Hospital Stay,
(LAP-BAND® System Congress Presentation Abstract)

684. Korner J., Bessler M., Conwell I., Restuccia N.,
Differential effects of gastric banding and bypass on gastrointestinal hormones,
Surgery for Obesity and Related Diseases 1, 2005, 222.
(LAP-BAND® System Abstract)
BACKGROUND: The LAP-BAND is designed to be an adjustable laparoscopically placed gastric restriction device for the treatment of severe obesity. The purpose of this study was to assess the outcome in patients who had failed to effectively lose weight with this device and were converted to a gastric bypass. METHODS: A retrospective chart review was performed of all LAP-BANDS placed in patients at our institution from March 1996 to June 1998. RESULTS: 36 LAP-BANDS were placed. To date, 18 of 36 (50%) have been removed. Fourteen of 18 were simultaneously converted to a gastric bypass. Indications for conversion included: failed weight loss (5), failed weight loss with esophageal dilatation (5), failed weight loss with leaking band (2), and symptomatic esophageal dilatation (1). Median time to conversion after LAP-BAND placement was 38.2 months. Median follow-up after conversion to gastric bypass was 8.3 months. Nineteen percent excess weight loss occurred after LAP-BAND placement. Forty-three percent excess weight loss occurred after conversion to gastric bypass (P =.025). CONCLUSIONS: In our experience, the LAP-BAND is associated with a high frequency of inadequate weight loss. Conversion to gastric bypass in this subset of patients is technically challenging but results in superior weight loss in a shorter time period.

687. Kral J., Dixon J., Hofer F., Rossner S., Stiles S., Togerson JS, Sugerman H.,
Flaws in methods of evidence-based medicine may adversely affect public health directives,
(Bariatric Surgery Article)

No abstract available

688. Krawczykowski D.,
Efficiency of Surgery on Morbid Obesity,
(LAP-BAND® System Congress Presentation Abstract)
689. Krawcykowski D., Saad M., Lecko M., Nore O.,
Pars Flaccida Laparoscopic Adjustable Gastric Banding: The First Surgical Step in the
Algorithm of Morbid Obesity Treatment,
(LAP-BAND® System Congress Presentation Abstract)

690. Krawcykowski D., Saad M., Lecko M., Nore O.,
Preimum Non Nocere: Pars Flaccida Laparoscopic Adjustable Gastric Banding: the First
Line Surgery for Morbid Obesity Treatment,
ASBS Presentation, 2004, 45.
(LAP-BAND® System Congress Presentation Abstract)

691. Kriwanek S., Schermann M., Abdullah S., Roka R.,
Band slippage – a potentially life-threatening complication after laparoscopic adjustable
gastric banding,
(LAP-BAND® System Article)

BACKGROUND: Although gastric bands are safe and effective devices, severe late complications
may develop in rare cases. PATIENTS: 3 patients were treated for complete dysphagia after slippage
of gastric bands. 2 of the patients were admitted for severe dehydration, 1 of whom developed
cerebral venous infarction. Ischemia of the gastric pouch occurred in 1 patient. RESULTS: All 3
patients survived after successful medical therapy and surgical removal of the bands. Bariatric
reoperations were performed in 2 patients (gastric sleeve resection, gastric bypass). CONCLUSION:
Complete dysphagia on the basis of band slippage represents a life-threatening acute event, which
may occur even years after implantation. Patients and doctors should be informed about this long-
term risk of gastric banding.

692. Kriwanek S., Schermann M., Abdullah S.,
Universal laparoscopic adjustable gastric banding?
Obesity Surgery, 15, 2005, 141-143.
(LAP-BAND® System Article)

No abstract available

693. Kuester JR, Koestler T., Wiontzek M., Risti B., Schoeb O.,
Primary laparoscopic adjustable gastric banding versus revisional bariatric surgery to
laparoscopic roux-en-y gastric bypass: a single center comparative study of 139 patients,
Obesity Surgery, 15, 2005, 946.
(LAP-BAND® System Abstract)
694. Kuester JR, Koestler T., Wiontzek M., Risti B., Schoeb O.,
Laparoscopic roux-en-y gastric bypass versus laparoscopic adjustable gastric banding: a
single center comparative study of 154 patients,
*Obesity Surgery*, 15, 2005, 969.
(LAP-BAND® System Abstract)

695. Kunath U., Memari B.,
Laparoscopic Gastric Banding: First Results in Germany,
(LAP-BAND® System Congress Presentation Abstract)

696. Kunath U., Susewind M., Klein S., Hofmann T.,
Success and Failure in Laparoscopic Gastric Banding,
(LAP-BAND® System Article)

During 3 years, the adjustable gastric band (AGSB) was laparoscopically implanted in 224 of 873
patients with morbid obesity. The operation was done by 7 surgeons. Problems arising from the
operative technique are: early pouch dilatation, gastric slippage, gastric perforation, penetration of
the band, port infection, penetration of the port, defect of the band catheter. These can be avoided by
care and increasing experience. The late pouch dilatation and the insufficient loss of excess weight
arise from the unsatisfactory compliance of the patient. Critical selection of patients is necessary.
Total morbidity in this seria was 19%, the letality 0.4% and the average excess weight loss within 2
years was 50 +/- 28%. The results may be improved by restrictive selection of patients and great
operative routine.

697. Kurian M., Roslin M.,
Solid State Barium Meal in LAP-BAND® s Inserted with Pars Flacida Technique,
(LAP-BAND® System Congress Presentation Abstract)

698. Kurian M., Roslin M., Patterson E., Ren C.,
Men, Women and Mass: Is There Sexual Dimorphism with Adjustable Gastric
Banding?
(LAP-BAND® System Congress Presentation Abstract)

699. Kurian M, Roslin M, Shah P,
A Novel Approach to Prevent Band Slippage
*Obesity Surgery*, 16, 2006, 980.
(LAP-BAND® System Abstract)
(LAP-BAND® System Congress Presentation Abstract)

(LAP-BAND® System Article)

BACKGROUND: Revision of gastric bariatric operations is sometimes technically difficult and may fail to achieve prolonged weight reduction. The use of the adjustable silicone gastric banding (ASGB) offers a new approach for these revisions. METHODS: ASGB was performed as a revisional procedure on 37 patients whose initial bariatric operations were as follows: silastic ring vertical gastroplasty (21), gastric bypass (12), horizontal gastroplasty (3) and vertical banded gastroplasty (1). RESULTS: The length of the procedure varied from 55 to 145 minutes (mean 83 minutes). Intraoperative complications included two fundic tears which were sutured without any postoperative sequelae. Five patients needed reoperation during the first postoperative year due to gastric volvulus (1), tubing tear (1) and development of postoperative ventral hernia (3). BMI fell from 44.8+/−8.07 to 33.4+/−6.9 kg/m2 for patients operated with BMI higher than 35 kg/m2 and from 29.2+/−3.32 to 25.4+/−2.8 kg/m2 for patients operated with BMI lower than 35 kg/m2. CONCLUSIONS: ASGB can be performed with revisions with an acceptable complication rate and postoperative weight reduction.

(LAP-BAND® System Congress Presentation Abstract)
The presence of a hiatal hernia is generally considered a contraindication to gastric banding in the morbidly obese, despite recent reports indicating favorable outcomes following simultaneous repair of sliding hernias and laparoscopic adjustable gastric banding (LAGB). A 66-year-old woman weighing 120 kg (BMI 45) with arterial hypertension and gastroesophageal reflux-related chronic obstructive pulmonary disease underwent repair of a large paraesophageal hernia and LAGB. At 40 months followup, the patient had lost 44% excess body weight (BMI 36) and had no complaints of heartburn, regurgitation or dysphagia. She was no longer hypertensive and her pulmonary condition had improved significantly. Barium swallow at 30 months showed normal anatomy and positioning of the band. Because other minimally traumatic surgical options are lacking, the author believes morbidly obese patients with hiatal hernia should not be denied the advantages of LAGB. Adequate weight reduction, resolution of gastroesophageal reflux and other co-morbidities can be expected if an appropriate surgical technique is used.

Although laparoscopic adjustable gastric banding has become a widely used surgical modality for the treatment of morbid obesity, the technique and its complications remain fairly unknown to the medical community in general. Late complications occur in 10% to 20% of patients and usually manifest as upper gastrointestinal symptoms such as total food intolerance. However, seemingly unrelated symptoms such as chest pain may be the primary complaint. A rare but important complication to recognize and treat is gastric necrosis due to herniation of the stomach through the band. From the lessons learned with 2 patients and review of the literature, the diagnostic pitfalls and means for achieving a prompt diagnosis are discussed and a management protocol intended for emergency department staff is provided.
BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) is now the most frequently performed gastric restriction procedure. While short- and long-term outcome have been described extensively, the relationship between eating behavior and weight reduction is still unclear.

METHODS: The present study examined the eating behavior of 66 selected morbidly obese subjects before and after LAGB by means of the Eating Inventory (EI), the Binge Scale Questionnaire (BSQ) and additional items. Assessments were conducted 6 months before surgery and at 3, 9, and 12 months after surgery. RESULTS: Significant reductions of weight and BMI were observed until 9 months after surgery, with a loss of 34.5% of excess weight. Later, a slight weight regain was noted. At baseline, Cognitive Restraint (CR), Hunger (H) and Flexible Control (FC) were within the norm, whereas Disinhibition (D) and Rigid Control (RC) were significantly elevated. None of the scales were related to BMI. At follow-up, significant changes were observed between presurgery and 3 months follow-up (T2), with increased CR, FC, and RC, and decreased D, H, and Binge Eating. These changes mostly remained stable. The largest changes were observed 3 months post-surgery in Flexible Control (FC), followed by D, CR, H, and RC. At follow-up, again no correlation was found between eating behavior and the total difference of BMI. CONCLUSION: LAGB results in significant reductions of weight, disinhibition and hunger during the first 9 months postoperatively. The change in eating behavior after surgery is independent of BMI and characterized mostly by elevated flexible control. Results indicate also changes of other behaviors that contribute to weight loss but are difficult to control.
(LAP-BAND® System Article)

BACKGROUND: Different changes of plasma ghrelin levels have been reported following gastric banding, Roux-en-Y gastric bypass, and biliopancreatic diversion. METHODS: This prospective study compares plasma ghrelin levels and weight loss following laparoscopic sleeve gastrectomy (LSG) and laparoscopic adjustable gastric banding (LAGB) in 20 patients. RESULTS: Patients who underwent LSG (n=10) showed a significant decrease of plasma ghrelin at day 1 compared to preoperative values (35.8 +/- 12.3 fmol/ml vs 109.6 +/- 32.6 fmol/ml, P=0.005). Plasma ghrelin remained low and stable at 1 and 6 months postoperatively. In contrast, no change of plasma ghrelin at day 1 (71.8 +/- 35.3 fmol/ml vs 73.7 +/- 24.8 fmol/ml, P=0.441) was found in patients after LAGB (n=10). Increased plasma ghrelin levels compared with the preoperative levels at 1 (101.9 +/- 30.3 fmol/ml vs 73.7 +/- 24.8 fmol/ml, P=0.028) and 6 months (104.9 +/- 51.1 fmol/ml vs 73.7 +/- 24.8 fmol/ml, P=0.012) after surgery were observed. Mean excess weight loss was higher in the LSG group at 1 (30 +/- 13% vs 17 +/- 7%, P=0.005) and 6 months (61 +/- 16% vs 29 +/- 11%, P=0.001) compared with the LAGB group. CONCLUSIONS: As a consequence of resection of the gastric fundus, the predominant area of human ghrelin production, ghrelin is significantly reduced after LSG but not after LAGB. This reduction remains stable at follow-up 6 months postoperatively, which may contribute to the superior weight loss when compared with LAGB.

707. Lanthaler M., Schwienbacher F., Tembler J., Weiss H., Mittermair R., Aigner F., Nehoda H.,
(LAP-BAND® System Article)

BACKGROUND: Morbid obesity is a rapidly increasing health risk in industrialized countries, and is associated with serious co-morbidities. Since conservative medical therapies fail to sustain significant weight loss, adjustable gastric banding (AGB) has become an established therapy for morbid obesity. To our knowledge there have been no trials assessing whether gastric bands implanted in the patient for some time can withstand the same mechanical stress as a new band. METHODS: The mechanical resistance of unused and used gastric bands was tested through the Tensile Test, to evaluate if a material is strong and rigid enough to withstand the loads experienced in use. 9 bands were tested, 2 of which were unused. RESULTS: The tested new Swedish AGB (SAGB) resisted 361 Newtons (N, 36.8 kg) until tearing, and the new LAGB (Inamed) 157 N (16 kg). The 7 SAGB which had been in a patient for at least 2 years, pulled apart at a mechanical stress of 250.6 N (25.54 kg). CONCLUSION: The new SAGB had a higher mechanical tensile strength than any of the used bands placed in the body for 2 years.
Lanthaler M, Mittermair R, Erne B, Weiss H, Aigner F, Nehoda H,
Laparoscopic Gastric Re-Banding versus Laparoscopic Gastric Bypass as a Rescue Operation for Patients with Pouch Dilatation,
*Obesity Surgery*, 16, 2006, 484-487
(LAP-BAND® System Article)

**BACKGROUND:** The authors assessed whether laparoscopic rebanding or laparoscopic Roux-en-Y gastric bypass (LRYGBP) is the best approach for failed gastric banding after pouch dilatation.

**METHODS:** Between January 2000 and June 2005, 489 patients underwent laparoscopic gastric banding, and of these, 33 (6.7%) required rescue procedures for pouch dilatation. Each reoperated patient was contacted to obtain information about their postoperative course. Additionally, preoperative weight and BMI, weight loss at 1 year postoperatively, weight at time of pouch dilatation and the time-period between the primary operation and pouch dilatation were analyzed.

**RESULTS:** The most common operation for pouch dilatation was band repositioning or rebanding (16 patients). Band removal without replacement was performed in 7 patients. 8 patients underwent conversion to a LRYGBP. 1 patient underwent laparoscopic gastric sleeve resection and 1 patient received an intragastric balloon. Patients who underwent conversion to LRYGBP are very content and, although weight loss has been nearly the same as after gastric banding, they would prefer the gastric bypass operation to the gastric banding. **CONCLUSION:** Conversion to LRYGBP appears to offer significant advantages, and appears to be the rescue therapy of choice after failed laparoscopic gastric banding.

Lantsberg L., Kirstein B.,
Lessons From My First 100 Laparoscopic Gastric Banding Procedures,
*Obesity Surgery*, 13, 2003, 563.
(LAP-BAND® System Congress Presentation Abstract)

Lantsberg L., Avinoach E., Kirstein B., Mizrahi S.,
Long-Term Results of Laparoscopic Adjustable Gastric Banding for the Treatment of Morbid Obesity,
*Obesity Surgery*, 14-2004, 901.
(LAP-BAND® System Congress Presentation Abstract)

Background: The aim of this cross-sectional study was to examine short and long-term eating behavior after laparoscopic adjustable gastric banding (LAGB) and the relationship of binge eating with weight and quality of life outcome.

Methods: 250 patients (221 female, 29 male, mean age 39.6 years, age range 22-61) filled out questionnaires to evaluate quality of life and eating behavior: 93 patients before LAGB, 48 with a follow-up duration of 8 through 24 months, and 109 patients 25 through 68 months after LAGB.

Results: Compared with patients before surgery, patients after surgery, in both follow-up groups, reported less binge eating, fat intake, external eating, and more restrained eating and eating self-efficacy. After surgery, about one-third of the patients showed binge eating problems, which were associated with a worse postoperative outcome.

Conclusion: Our results suggest that eating behavior improves both short- and long-term after surgery for severe obesity. Although LAGB could be a longterm solution to part of preoperatively eating disordered patients, the identification and treatment of postoperative binge eating appear critical to promote successful outcome after bariatric surgery.

**OBJECTIVE:** Personality characteristics are assumed to underlie health behaviors and, thus, a variety of health outcomes. Our aim was to examine prospectively whether personality traits predict short- and long-term weight loss after laparoscopic adjustable gastric banding. **RESEARCH METHODS AND PROCEDURES:** Of patients undergoing laparoscopic adjustable gastric banding, 168 (143 women, 25 men, 18 to 58 years old, mean 37 years, preoperative BMI 45.9 +/- 5.6 kg/m(2)) completed the Dutch Personality Questionnaire on average 1.5 years before the operation. The relationship between preoperative personality and short- and long-term postoperative weight loss was determined using multilevel regression analysis. **RESULTS:** The average weight loss of patients progressively increased to 10 BMI points until 18 months after surgery and stabilized thereafter. A lower baseline BMI, being a man, and a higher educational level were associated with a lower weight loss. None of the personality variables was associated with weight outcome at short-term follow-up. Six of seven personality variables did not predict long-term weight outcome. Egoism was associated with less weight loss in the long-term postoperative period. The effect sizes of the significant predictions were small. **DISCUSSION:** None of the personality variables predicted short-term weight outcome, and only one variable showed a small and unexpected association with long-term weight outcome that needs confirmation. This suggests that personality assessment as intake psychological screening is of little use for the prediction of a poor or successful weight outcome after bariatric surgery.

713. Larsen JK, Geenen R., Childhood Sexual Abuse is not Associated with a Poor Outcome after Gastric Banding for Severe Obesity, *Obesity Surgery, 15, 2005, 534-537.*

**No abstract available**
OBJECTIVE: Personality characteristics are assumed to underlie health behaviors and, thus, a variety of health outcomes. Our aim was to examine prospectively whether personality traits predict short- and long-term weight loss after laparoscopic adjustable gastric banding. RESEARCH METHODS AND PROCEDURES: Of patients undergoing laparoscopic adjustable gastric banding, 168 (143 women, 25 men, 18 to 58 years old, mean 37 years, preoperative BMI 45.9 +/- 5.6 kg/m(2)) completed the Dutch Personality Questionnaire on average 1.5 years before the operation. The relationship between preoperative personality and short- and long-term postoperative weight loss was determined using multilevel regression analysis. RESULTS: The average weight loss of patients progressively increased to 10 BMI points until 18 months after surgery and stabilized thereafter. A lower baseline BMI, being a man, and a higher educational level were associated with a lower weight loss. None of the personality variables was associated with weight outcome at short-term follow-up. Six of seven personality variables did not predict long-term weight outcome. Egoism was associated with less weight loss in the long-term postoperative period. The effect sizes of the significant predictions were small. DISCUSSION: None of the personality variables predicted short-term weight outcome, and only one variable showed a small and unexpected association with long-term weight outcome that needs confirmation. This suggests that personality assessment as intake psychological screening is of little use for the prediction of a poor or successful weight outcome after bariatric surgery.

OBJECTIVE: The current study sought to find indications for the appropriateness of a model in which eating patterns and exercise beliefs influence binge eating and physical exercise, respectively, that, in turn, influence outcome after gastric banding for severe obesity. METHOD: Participants were 157 patients (144 females, 13 males) who completed questionnaires approximately 34 months (range = 8-68 months) after laparoscopic adjustable gastric banding (LAGB). RESULTS: Our data showed a well-fitting model in which external and emotional eating were associated with outcome through binge eating. Several exercise beliefs were associated with physical exercise, but physical exercise was not associated with weight loss or physical health. CONCLUSION: Binge eating was related more strongly to the outcome after gastric banding than physical exercise. Future research should examine whether a strong focus on the management of binge eating and external and emotional eating could improve the outcome of morbidly obese patients with unsuccessful weight outcome after obesity surgery.
BACKGROUND: One of the major complications of gastric banding is intragastric migration of the band. The frequency ranges from 0.5% to 3.8%, and removal of the band is always required. We undertook a prospective study with the aim to determine the reasons for this significant complication in bariatric surgery.

METHODS: 480 morbidly obese patients underwent adjustable gastric banding in our Surgical Department, from February 1998 to October 2005. 31 of them were reoperated for different surgical problems, at an average time of 39 months after the bariatric procedure. During the reoperation, some fragments of fibro-adipose tissue in close contact with the band were removed. They were examined, focusing on the following parameters: acute and chronic inflammation, fibrosclerosis, and foreign body granulomatous reaction.

RESULTS: Histological assessment showed the presence of acute and chronic inflammation, generally of mild and medium grade; fibrosclerosis was present mostly in a severe form, indicating a biological periprosthesic wall that separates and protects the gastric wall from the band; no cases of foreign body reaction were observed, nor were silicone inclusions found inside the inflammatory cells.

CONCLUSION: The histologic changes of periprosthesic tissue do not appear to account for endoluminal migration of the gastric band. Thus, band erosion could have a closer correlation with other causes, such as infection of the band or intraoperative surgical damage, possibly due to direct mechanical action or to the thermal effect of the electric scalpel.
720. Laurie C, O'Brien P, Alvarez V, Dixon J,
The Intensive Care Study: Testing If Unsatisfactory Weight Loss after Adjustable Gastric
Banding Can Be Overcome,
Obesity Surgery, 16, 2006, 1015.
(LAP-BAND® System Abstract)

721. Lavryk A., Sayenko V., Tyvonchuk O., Stetsenko O., Masurak T.,
Choice of Optimal Bariatric Procedure in the Treatment of Morbid Obesity,
(LAP-BAND® System Congress Presentation Abstract)

722. Lavryk A., Stetsenko O., Tyvonchuk A., Sayenko V.,
Gastric Banding: Personal Experience,
(LAP-BAND® System, ASGB Abstract)

723. Lavryk A., Sayenko V., Stetsenko O., Tyvonchuk O.,
Re-Operations after Gastric Banding,
Obesity Surgery, 13, 2003, 564.
(LAP-BAND® System Congress Presentation Abstract)

724. Layani L., Petrou G.
Laparoscopic Gastric Banding After Open Gastroplasty for Morbid Obesity is Difficult
But Possible,
Obesity Surgery, 13, 2003, 564.
(LAP-BAND® System Congress Presentation Abstract)

725. Lechner W., Ott N., Lechner P.,
Pressure Measurement Inside the Band System,
(LAP-BAND® System Congress Presentation Abstract)

726. Lechner WL, Kirchmayer W., Schwab G.,
In vivo band manometry: A new method in band adjustment,
Obesity Surgery, 15, 2005, 935.
(LAP-BAND® System Abstract)

727. Lechner W., Gadenstatter M., Ciovica R., Kirchmayer W., Schwab G.,
In vivo band manometry: A new access to band adjustment,
(LAP-BAND® System Article)

No abstract available
BACKGROUND: Roux-en-Y gastric bypass (RYGBP) is more efficient than adjustable gastric banding (AGB) in weight loss and relieving co-morbidities, but nutritional complications of each surgical procedure have been poorly evaluated. METHODS: A cross-sectional study was performed to compare nutritional parameters in 201 consecutive obese patients, who had been treated either by conventional behavioral and dietary therapy (CT, n=110) or by bariatric surgery, including 51 AGB and 40 RYGBP. RESULTS: BMI was similar after AGB (36.6 +/- 5.3 kg/m2) and RYGBP (35.4 +/- 6.3 kg/m2), but patients in the RYGBP group had lost more weight and had less metabolic disturbances than those in the AGB group. On the other hand, the prevalence of nutritional deficits was significantly higher in the RYGBP group than in the 2 other groups (P<0.01), whereas the AGB group did not differ from CT. Particularly, the RYGBP group presented an unexpected high frequency of deficiencies in fat-soluble vitamins. Moreover, vitamin B12, hemoglobin, plasma prealbumin and creatinine concentrations were low in the RYGBP group. CONCLUSION: RYGBP is more efficient than AGB in correcting obesity, but this operation is associated with a higher frequency of nutritional deficits that should be carefully monitored.


No abstract available

BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) is a safe and effective treatment for morbid obesity. Previous studies in Western countries disclosed a significant improvement in co-morbidities and health-related quality of life. Data from Asia and regarding the specific GI quality of life following LAGB are lacking. METHODS: From May 2002 to May 2005, 107 consecutive patients - 48 men and 59 women, with mean age 31.4 years (range 17-57 years) with morbid obesity (mean weight 115.8 kg, range 81-174 kg; mean BMI 41.3 kg/m(2), range 32.0-59.8 kg/m(2)) underwent LAGB in a prospective trial. All bands were placed via the pars flaccida technique. Quality of life was measured by the Gastrointestinal Quality of Life Index (GIQLI), a 36 item questionnaire before LAGB, and at 3, 6, 12 and 24 months after surgery. RESULTS: All procedures were performed laparoscopically with no conversions. There was neither intra-operative complications nor major postoperative complications. Minor complications occurred in 3 patients (2.8%); all were transient stoma obstruction. At follow-up, only one band (0.94%) was removed at 3 months postoperatively because of the patient’s intolerance. No gastric slippage occurred. 4 patients (3.7%) had tubing problems and required revision surgery for port adjustment. Mean BMI decreased from 41.3 to 33.1 after 2 years. Percent excess BMI loss averaged 48.1% at 2 years (range 6.7-139.2). All co-morbidities were eliminated significantly. 80% of patients were satisfied with the results at 2 years. However, the GIQLI score remained similar before and after surgery. Preoperative score was 110.8±15 points. The score became 116.2±13, 114.7±13, 108.5±14 and 107.2±17 at 3, 6, 12 and 24 months. The patients had improvement in 3 domains of general health (social, physical and emotional functions), but decrease in the domain of symptoms. CONCLUSION: Although LAGB was successful in weight loss and resolution of co-morbidities in morbidly obese patients, the GIQLI did not improve. This feature will be the major disadvantage of LAGB.
Background/Purpose: Laparoscopic adjustable gastric banding (LAGB) is a newly developed minimally invasive surgical procedure for the treatment of morbid obesity. This study was conducted to evaluate body weight loss, surgical complications, and comorbidities after LAGB surgery. Methods: Ninety-one morbidly obese patients (mean age, 31.2 years; mean preoperative weight, 120.8 kg) underwent LAGB in a private Taiwan hospital setting within a comprehensive multidisciplinary bariatric program. Patients were followed up to 36 months. Comorbidities were assessed in 55 patients who completed more than 12 months of follow-up by comparing each comorbid condition before surgery and during follow-up. Results: All procedures were performed laparoscopically with no conversion. Mean operation time was 88.7 +/- 32.9 minutes. There were no intraoperative or major postoperative complications. Minor complication of stoma stenos is occurred in three (3.3%) patients. At 36 months after surgery, mean body mass index had decreased from 42.7 to 33.9 kg/m2, and mean percentage of excess weight loss was 44.8%. Late complications were as follows: intractable vomiting requiring band removal in one (1.1%) patient, tubing problems requiring revision surgery in four (4.3%), and stoma obstruction in two (2.1%). There was no mortality. Resolution or improvement of comorbidities was significant for hyperglycemia and diabetes-related index, dyslipidemia, abnormal liver function, hyperuricemia, sleep apnea, and arthralgia, but not for hypertension. Conclusion: LAGB provides good weight loss and significant reduction in comorbidities with few minor complications.
739. Lesti G., Graziani S., Lanci C., Cericola S., Sardellone A.,
Adjustable Silicone Gastric Banding: Use of the Ultrasound Technology in Laparoscopic Approach,
(LAP-BAND® System Article)

No abstract available

740. Lew JI, Daud A, DiGiorgi MF, Olivero-Rivera L, Davis DG, Bessler M,
Perioperative esophageal manometry and outcome of laparoscopic adjustable gastric banding,
*Surgical Endoscopy*, 20, 2006, 1242-1247.
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable silicone gastric banding (LASGB) for morbid obesity has been reported to provide long-term weight loss with a low risk of operative complications. Nevertheless, esophageal dilation leading to achalasia-like and reflux symptoms is a feared complication of LASGB. This study evaluates the clinical benefit of routine preoperative esophageal manometry in predicting outcome after LASGB in morbidly obese patients. METHOD: A review of prospectively collected data on 77 patients who underwent routine esophageal manometry prior to LASGB for morbid obesity from February 2001 to September 2003 was performed. Aberrant motility, abnormal lower esophageal sphincter (LES) pressures, and other nonspecific esophageal motility disorders noted on preoperative esophageal manometry defined patients of the abnormal manometry group. Outcome differences in weight loss, emesis, band complications, and gastroesophageal reflux disease (GERD) resolution or improvement were compared between patients of the abnormal and normal manometry groups after LASGB. Analysis of variance (ANOVA) and chi-square tests were performed to determine the significance of these outcomes. RESULTS: Of the patients tested, 14 had abnormal esophageal manometry results, whereas 63 had normal manometry results before LASGB. There was no significant difference in percent excess weight loss (%EWL) at 6 and 12 months between the groups after gastric banding. Severe postoperative emesis occurred more frequently in patients with abnormal manometry results than in those with normal manometry results. There were two band-related complications, both of which occurred in patients of the normal manometry group. CONCLUSIONS: Preoperative esophageal manometry does not predict weight loss or GERD outcomes after LASGB in morbidly obese patients. Postoperative emesis was more common in patients with abnormal manometry findings, but such symptoms were manageable and did not lead to poor weight loss or to band removal or increased band-related complications.

741. Libanori H., Paiva D., Gomes L., Sallet J., Roll S., Carim J., Miguel P., Marchesini J., de Paula A., Saboya C.,
Brazilian LAP-BAND® Group – Experience After 260 Operations,
*Obesity Surgery*, 10, 2000, 323.
(LAP-BAND® System Congress Presentation Abstract)
742. Libanori H., Nahas S., Szachnowicz S., Lourencao J., Borba M., Oliveira D., Atui F.,
LAP-BAND - How We Treat the Most Frequent Late Complications,
(LAP-BAND® System Congress Presentation Abstract)

743. Libeton M., Dixon J., Laurie C., O'Brien P.,
Patient Motivation for Bariatric Surgery: Characteristics and Impact on Outcomes,
(LAP-BAND® System Article)

BACKGROUND: Motivation for seeking obesity surgery has not been studied. The authors explored the patient's motivation for selecting surgery and examined for a relationship between primary motivating factors and weight outcomes. METHODS: 208 (177F: 31M) unselected participants followed at least 1 year after Lap-Band placement completed a short questionnaire. 6 statements were scored 1-6 from the most important through to the least important. Statements included appearance, embarrassment, medical conditions, health concerns, physical fitness and physical limitation. Any additional factors were also sought. RESULTS: Mean age, weight and BMI before surgery were 41+/-10 years, 129+/-16 kg and 46+/-8 kg/m(2) respectively. Responses to appearance and embarrassment correlated strongly and were grouped together. Medical conditions and health concerns account for 52%, appearance and embarrassment for 32%, and poor physical fitness and physical limitation for 16% of first choices. Those who scored 1 for appearance or embarrassment (n=67) had a lower presenting BMI (44 kg/m(2), P=0.03) and all but 1 were female (P<0.001). This group reported more depressive symptoms, poorer mental quality of life and poorer body image preoperatively. Men were more likely than women to be motivated by medical problems (P=0.007). Subjects motivated by a medical condition were more likely to have hypertension or diabetes and less likely to smoke. This group tended to be older. Weight history did not influence motivation. The first choice of motivating factor was not associated with weight outcomes at 1-3 years following surgery. CONCLUSION: Health issues dominate the motivation for seeking surgery. Weight outcomes do not appear to be affected by the patient's primary motivating factor.

744. Libeton M., Laurie C., Dixon J., O'Brien P.,
The Motivation for Seeking LAP-BAND Surgery Does Not Influence Weight Outcomes,
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Weight loss operations are being performed at an exponentially increasing rate. Although highly effective for controlling obesity and its complications, the operations are expensive. The operations are thought to be cost-effective, but there has not been an analysis of the costs associated with these procedures at a national level precluding definitive cost-effectiveness studies useful for policy determination. METHODS: The 2001 and 2002 National Inpatient Survey (NIS) was used to establish costs attributable to bariatric surgery. This survey contains discharge information for approximately 20% of all US hospital admissions in any given year. Bariatric procedures were identified by ICD-9-CM procedures codes and diagnostic related group (DRG) 288 (operating room [OR] procedures for obesity). RESULTS: Of the commonly performed operations, laparoscopic gastric bypass had the lowest hospital charges (19,794 dollars/case) relative to open gastric bypass (22,313 dollars/case) and laparoscopic banding procedures (25,355 dollars/case). Laparoscopic gastric bypass resulted in fewer charges because of a 1-day shorter median length of stay. DISCUSSION: These data provide benchmarks for the costs associated with the weight loss procedures commonly performed in the United States. Although laparoscopic gastric bypass is the lease costly approach to bariatric surgery, the fact that costs are lower because of decreased length of stay can be disadvantageous for hospitals reimbursed on a per diem basis.

We present a case of peritonitis and death due to the misplacement of a laparoscopic adjustable band inserted through, instead of around, the stomach. This represents the first case in the published literature where a LAP-BAND perforated the stomach, followed by peritonitis and death. The morbidly obese female patient with a history of hypertension and arthritis was 47 years old, 5 feet 6 inches tall, weighed 361 pounds, and had a body mass index of 58.3. She underwent a 2-hour, elective, LAP-band insertion operation to achieve weight loss; 27 hours after band insertion, following the conduction of all FDA-mandated Lap-Band postoperative protocol (including a radiologic Gastrogrografin swallow), the patient was discharged with “no evidence of esophageal stasis or obstruction.” She remained out of hospital care and in her residence until she called for and was taken by an ambulance to an alternate, local hospital (57 hours after band insertion), when gastric perforation was confirmed via x-ray and CT scans. No open surgery was attempted to repair the damage, and cardiac arrest ensued 7 hours after admission to the second hospital. The patient was pronounced dead 64 hours after LAP-band insertion. This unique case is significant, given that there were no deaths of this kind reported in The LAP-BAND(R) Adjustable Gastric Banding System Summary of Safety and Effectiveness Data by the United States Center for Devices and Radiologic Health, of the Food and Drug Administration, or in searches of the published literature.
747. Lomanto D, So JBY, Ti TK Katara A,
   Early Results of Laparoscopic Adjustable Gastric Band on Diabetes Mellitus and Metabolic Syndrome in an Asian Population,
   *Obesity Surgery*, 16, 2006, 1007.
   (LAP-BAND® System Abstract)

748. Lo Menzo E., Podkameni D., Kennedy C., Villares A., Soto F., Higa G., Chousleb E., Berkowski D., Szomstein S., Rosenthal R.,
   Causes of Failure in Laparoscopic Gastric Banding,
   (LAP-BAND® System Congress Presentation Abstract)

749. Lopez-Corvala J., Guzman F., Ortiz-Lagardere A.,
   Band Erosion and Slippage: Detecting and Avoiding Long Term Complications,
   (LAP-BAND® System Congress Presentation Abstract)

750. Lopez-Corvala J., Guzman F., Ortiz-Lagardere A.,
   LAP-BAND®, Safe and Effective Procedure: 4 Year Follow-Up,
   (LAP-BAND® System Congress Presentation Abstract)

751. Lopez-Corvala J., Guzman F., Ortiz-Lagardere A.,
   ASGB Prolapse and Erosion Feared Complications,
   *Obesity Surgery*, 13, 2003, 525.
   (LAP-BAND® System Congress Presentation Abstract)

752. Lorenzo M., Borelli V., Giuffre M., Persico F., Bassi UA, Scarano P., Battaglini M., Angrisani L.,
   Bariatric surgery following intragastric balloon: is it really necessary?
   (LAP-BAND® System Abstract)

**BACKGROUND:** Morbid obesity is a very severe pathology, deriving partly from a psychological disturbance of nutritional behavior. Besides a behavioral therapeutic approach, surgery appears to be necessary to resolve associated diseases by causing a satisfactory weight loss. Adjustable gastric banding is a less-invasive, potentially reversible procedure that guarantees an optimal quality of life.

**METHODS:** The authors have performed Kuzmak’s gastric banding since 1992, with the lap-band approach since 1995; 183 patients were submitted to surgery, and 68 of these were operated by the laparoscopic approach. Average body mass index was 45.5 kg/m². The complications were always under control and have decreased since the introduction of the recent lap-band.

**RESULTS:** Gastric banding is still a very young procedure and it is difficult to state definitive results yet. Preliminary results, according to our experience are satisfactory in terms of weight loss, without metabolic changes and without mortality.

**CONCLUSIONS:** Our experience is encouraging if patient selection is accurate and rigid.


**BACKGROUND:** Gastric banding is a very satisfactory procedure for the treatment of morbid obesity. The significant incidence of skin suppuration in these patients makes the laparoscopic approach a suitable technique. Regardless of this, in some cases, suppuration can still rarely result.

**METHODS AND RESULTS:** In four patients the authors observed diffusion of suppuration in both directions along the catheter which connects the port to the band, necessitating band removal and thus invalidating the procedure.

**CONCLUSIONS:** Suppuration of port location is an undesirable complication that must be avoided because it may contaminate the entire device system. This complication must be carefully evaluated for a correct diagnosis and an eventual removal of the band.
755. Lucchese M., Alessio F., Valeri A., Cantelli G., Venneri F., Borrelli D.,
Adjustable Gastric Banding: Advantages and Disadvantages,
(LAP-BAND® System Article)

BACKGROUND: Adjustable gastric banding has many advantages in the treatment of severe obesity.
METHODS: The authors report their experience with open and laparoscopic adjustable gastric banding in the treatment of severe obesity. RESULTS: This procedure presents some risks and complications, which are described. CONCLUSIONS: Patients must be well informed about the procedure and accept a strict behavioral therapeutic pattern. Follow-up requires strict surveillance. When the band necessitates increase of pressure, follow-up must be very close in order to avoid a complication that may invalidate this procedure.

756. Lucchese M., Alessio F., Cantelli G., Paulin I., Valeri A.,
Adjustable Gastric Banding: A 7 Year Experience,
*Obesity Surgery*, 9, 1999, 327.
(LAP-BAND® System Congress Presentation Abstract)

757. Lucchese M., Valeri A., Cantelli G., Paulin I., Reddavide S., Domenico B.,
Laparoscopic Adjustable Gastric Banding: Personal Experience,
*Obesity Surgery*, 10, 2000, 325.
(LAP-BAND® System Congress Presentation Abstract)

758. Lucchese M., Valeri A., Cantelli G., Paulin I., Reddavide S., Borrelli D.,
Laparoscopic Adjustable Gastric Banding: Personal Experience,
*Obesity Surgery*, 11, 2001, 413.
(LAP-BAND® System Congress Presentation Abstract)

759. Lucchese M., Duranti A., Cantelli G., Reddavide S., Valeri A.,
Laparoscopic Adjustable Gastric Banding: 11 Years Experience,
(LAP-BAND® System Congress Presentation Abstract)

760. Lucero A., Omelanczuk P., Nefa J., Chacon L., Penutto C., Pamillon N., Omelanczuk S.,
Co-morbidity and weight loss after placement of an adjustable gastric band: initial experience,
(LAP-BAND® System Abstract)
761. Lunca S., Vix M., Rikkers A., Rubino F., Marescaux, J.,
Late Gastric Prolapse with Pouch Necrosis after Laparoscopic Adjustable Gastric
Bandung,
Obesity Surgery, 15, 2005, 571-575.
(LAP-BAND® System Article)

No abstract available

762. Lunca S., Pertea M., Bouras G., Dumitru L., Hatjissalatas S.,
Morbid Obesity: A Surgical Perspective,
(LAP-BAND® System Article)

Morbid obesity is a chronic illness of multifactorial aetiology which is defined as Body Mass Index
(BMI) greater than 40 kg/sq.m. Non-surgical treatments for this condition have been shown to be
ineffective. Surgery is the only effective treatment and obtains the best long-term outcomes. Surgery
is indicated when BMI is greater than 40, or BMI is greater than 35 with significant associated co-
morbidities. Four types of operations are currently performed: restrictive, malabsorptive, combined
procedures (malabsorptive-restrictive) and motility-reducing pro-cedures. With restrictive
procedures (adjustable gastric banding and vertical banded gastroplasty), patients can expect a long-
term excess weight loss of 44-68%; for combined procedures (Roux-en-Y gastric by-pass) this is 60-
70%, whereas for malabsorptive procedures (bilio-pancreatic diversion with or without duodenal
switch), this is 75-80%. Intra-gastric stimulation is the least invasive treatment, but induces the lowest
excess weight loss (32%) in the first two years after the operation. Gastric banding offers the best
results when balancing risks and benefits. All procedures are now performed laparoscopically with
comparable results to open surgery. The overall mortality rate in specialized centers is less than 0.3%.
Different techniques are indicated according to BMI and the patient’s eating habits. Surgery for
morbid obesity has proved to improve quality of life and significantly reduce associated co-
morbidities.

763. Lyass S., Cunneen S., Haglike M., Misra M., Burch M., Khalili T., Furman G., Phillips E.,
Moderate weight loss produces significant improvement in comorbid conditions after
laparoscopic adjustable gastric banding,
2005 SAGES Abstract No. 5026, 88.
(LAP-BAND® System Abstract)
Laparoscopic adjustable gastric banding (LAGB) is considered a relatively safe weight loss procedure with low morbidity. When complications occur, obstruction, erosion, and port malfunction require reoperation. We retrospectively reviewed our experience with 270 consecutive patients who underwent LAGB. Device-related reoperations were performed in 26 (10%) patients. Reoperations were related to the band in 13, to port/tubing in 11, and related to both in 2 patients. Of the 15 band-related problems, it was removed in 5 (2%): slippage (3), intra-abdominal abscess (1), and during emergent operation for bleeding duodenal ulcer (1). Revision or immediate replacement was performed in 10 (4%): slippage (5), obstruction (4), and leak from the reservoir (1). Port/tubing problems were the reason for reoperations in 13 (5%): infection (5), crack at tubing-port connection (6), and port rotation (2). Port removal for infection was followed later by port replacement (average 9 months). Overall, slippage occurred in 8 (3%), obstruction in 4 (1.5%), leak from reservoir in 7 (3%), and infection in 5 (2%) patients. Fifteen device-related problems occurred during our first 100 cases and 12 subsequently (P = 0.057). Permanent LapBand loss was only 5 per cent, leading to overall rate of 95 per cent of LapBand preservation as a restrictive device.

765. MacDonald K., Hickner R., Houmard J., Dohm I., Hyatt A., Tanner C., Chapman W., Pories W.,
Effect of Gastric Bypass and Gastric Banding Surgery on Insulin Action,
(LAP-BAND® System Congress Presentation Abstract)

766. MacDonald K., Schauer P., Brolin R., Scopinaro N., O’Brien P., Doherty C.,
Bariatric Surgery – A Review,
(LAP-BAND® System Article)

No abstract available

767. Madan A, Tichansky D, Taddeucci R,
Postoperative Laparoscopic Bariatric Surgery Patients Do Not Remember Potential Complications,
*Obesity Surgery, 16*, 2006, 998.
(LAP-BAND® System Abstract)
BACKGROUND: Controversy exists regarding the effectiveness of surgery for weight loss and the resulting improvement in health-related outcomes. PURPOSE: To perform a meta-analysis of effectiveness and adverse events associated with surgical treatment of obesity. DATA SOURCES: MEDLINE, EMBASE, Cochrane Controlled Trials Register, and systematic reviews. STUDY SELECTION: Randomized, controlled trials; observational studies; and case series reporting on surgical treatment of obesity. DATA EXTRACTION: Information about study design, procedure, population, comorbid conditions, and adverse events. DATA SYNTHESIS: The authors assessed 147 studies. Of these, 89 contributed to the weight loss analysis, 134 contributed to the mortality analysis, and 128 contributed to the complications analysis. The authors identified 1 large, matched cohort analysis that reported greater weight loss with surgery than with medical treatment in individuals with an average body mass index (BMI) of 40 kg/m² or greater. Surgery resulted in a weight loss of 20 to 30 kg, which was maintained for up to 10 years and was accompanied by improvements in some comorbid conditions. For BMIs of 35 to 39 kg/m², data from case series strongly support superiority of surgery but cannot be considered conclusive. Gastric bypass procedures result in more weight loss than gastroplasty. Bariatric procedures in current use (gastric bypass, laparoscopic adjustable gastric band, vertical banded gastroplasty, and biliopancreatic diversion and switch) have been performed with an overall mortality rate of less than 1%. Adverse events occur in about 20% of cases. A laparoscopic approach results in fewer wound complications than an open approach. LIMITATIONS: Only a few controlled trials were available for analysis. Heterogeneity was seen among studies, and publication bias is possible. CONCLUSIONS: Surgery is more effective than nonsurgical treatment for weight loss and control of some comorbid conditions in patients with a BMI of 40 kg/m² or greater. More data are needed to determine the efficacy of surgery relative to nonsurgical therapy for less severely obese people. Procedures differ in efficacy and incidence of complications.
BACKGROUND: Bariatric surgery is the therapy for morbid obesity. There are a number of surgical procedures, which are performed by open surgery (OS) and more recently also by laparoscopy (LS). The objective of this study was to consider the evidence for the best bariatric surgical options.

METHODS: Systematic review of the literature was conducted. Morbid obesity studies published between 1990 and 2002 were analyzed. MEDLINE, Lilacs and Cochrane databases were used, utilizing MeSH terms and free words. Selected studies were analyzed using a specially designed score of methodological quality, to analyze and compare studies. This validated scale is composed by 3 items, and the final score may range between 6 and 36 points. Means, medians and weighted means were calculated, and a comparative analysis by therapy was performed using median 95% confidence intervals (CI). Number of treated patients, reduction in body mass index (BMI), reduction in co-morbidity, %EWL, morbidity and mortality, hospital stay, follow-up, success and failure of operations, and methodological quality were analyzed.

RESULTS: 283 related articles were considered. Only 31 of them had selection criteria (these include 5,216 patients operated by OS and 3,230 by LS). Operative mortality was 0.0% for OS and 0.4% for LS. At 36 months, OS techniques show reduction in BMI, %EWL and reductions in co-morbidity of 30.9%, 61.9% and 74.1% respectively. At 36 months, LS techniques show reduction in BMI, %EWL and reduction in comorbidity of 23.7%, 55.9% and 70.9%. Hospital stay was 3.8 days for LS and 7 for OS. At 2-year follow-up, morbidity was 14.8% for LS and 16.7% for OS, and reoperations were 17.7% for LS and 11.3% for OS. Median score for methodological quality was 13 for OS and 11 for LS. CONCLUSIONS: Methodological quality of primary studies to 2002 has been poor.

Ghrelin is a peptide hormone with orexigenic properties that is produced by the stomach. Ghrelin and leptin are thought to be the main regulators of appetite and body weight. The present study was aimed at evaluating the effect of weight reduction after laparoscopic adjustable gastric banding (LABG) on metabolic parameters and energy balance regulatory peptides. Patients were evaluated before and 6, 12, 24 or 36 months after the procedure, and a blood sample was obtained. Ghrelin rose 6 and 12 months after LAGB, and then returned to near-baseline levels. In our study, the correlation between ghrelin and BMI was weak, but a strong significant correlation was maintained between leptin and BMI. We conclude that ghrelin is mainly stimulated by the negative caloric balance, and hypothesize that ghrelin is involved in maintaining a stable body weight, while leptin signals the body energy store; both hormones together are part of a more complex feedback mechanism.
BACKGROUND: Adjustable gastric banding is currently the most common bariatric operation. This study is a retrospective analysis of the Finnish experience with this procedure over the last 10 years.

METHODS: Between March 1993 and June 1999, 123 patients underwent either open (36) or laparoscopic (87) surgery for morbid obesity by the application of an adjustable gastric band. Data on preoperative clinical characteristics and postoperative outcome and weight-loss patterns up to 9 years (mean 55 months) are presented and also evaluated by the Bariatric Analysis and Reporting Outcome System (BAROS). Sex ratio was 31% males / 69% females, mean age 44 years and mean +/- SD preoperative BMI 49 +/- 8 kg/m(2) (range 33.6-85.1). RESULTS: During the evaluation period (March 1993 December 2002), 54% of patients experienced postoperative complications requiring hospital treatment >or= 7 days, and 52% underwent a reoperation. 33% of bands were removed. The most important late complications were esophagitis (30%), obstruction due to slippage / pouch dilatation (21%), incisional hernia (9%) and band erosion (9%). Mean excess weight loss at 1 and 2 year follow-up was 36% and 38%, which later stabilized to 30%. During the evaluation period, there were 10 deaths, 2 of which were 30-day deaths, and the remainder were not associated with the band. According to BAROS, the outcome was regarded as "very good" in 3%, "good" in 7%, "fair" in 40% and "failure" in 50%. CONCLUSION: Our long-term data found that weight reduction is acceptable, but the incidence of late complications and reoperations was high.
OBJECTIVE: To determine outcomes of pregnancies of obese women who had surgical placement of an adjustable gastric band to treat obesity. METHODS: We conducted two clinical trials to evaluate adjustable gastric banding that involved 359 obese women of reproductive potential (age 18-51 years), of whom 20 conceived resulting in 23 pregnancies. Specific information about pregnancies and fetal outcomes was collected from medical records and direct patient contact. RESULTS: Eighteen pregnancies were full term, one was an ectopic gestation, two ended in elective abortions, and two in spontaneous abortions unrelated to the women's medical conditions. Of the 18 full-term pregnancies, 14 delivered vaginally and four by cesarean (one for prolonged fetal bradycardia, two for cephalopelvic disproportion, and one repeat cesarean for twins). The mean birth weight was 3676 g (range 2381-3912 g). Five women lost weight (range 1.8-17.6 kg) during pregnancy without obvious fetal and neonatal effects. Three women had fluid removed from their gastric bands (decreasing the mechanical constriction) to treat nausea and vomiting. Two women who had no fluid in their bands eliminated the effectiveness of the obesity treatment, resulting in excessive weight gain. CONCLUSION: Morbidly obese women who became pregnant soon after receiving an adjustable gastric band had uncomplicated pregnancies. Adjustment of the gastric band to decrease the amount of mechanical obstruction decreased nausea and vomiting, but led to excessive weight gain in two women when it was done prophylactically. Obese women at risk of pregnancy should be counseled that it might occur unexpectedly after weight loss from gastric banding unless birth control is promptly instituted.
INTRODUCTION: Surgeons have been consistently instructed to use better tools by which to improve upon a patient’s medical care. Since the first laparoscopic cholecystectomy, the desire for advanced surgical technologies has continued. This surgical breakthrough has been one of many changes in modern surgical and medical therapy that now represents the standard of care. The aim of this article is to examine the changes in surgical technologies that occurred in the past 15 years, evaluate the possible solutions that have been discussed and formally present the results of a formal training rotation in advanced surgical technologies at the University of Louisville, Department of Surgery. METHODS: Questionnaires were sent to 36 former residents who had completed the residency and the advanced surgical technologies rotation to evaluate the success of their training. RESULTS: From its inception in 1998 to 2004, the residents have performed a total of 1097 procedures, or an average of 35 cases per month. Much of the exposure was gained in advanced laparoscopy, including laparoscopic nissen fundoplication, gastric band, gastric bypass, splenectomy, colon resection, small-bowel resection donor nephrectomy, and hepatic ablation. Similarly, an evaluation of the 2 procedures that in the late 1990s were considered advanced surgical procedures—sentinal node biopsy and endovascular procedures—shows that the number of these procedures performed on this rotation has fallen over the past 2 years. The overall impression of the rotation from these former residents was either integral or essential in 70% and was helpful in 20%. CONCLUSION: The number of demands impacting medical education have never been this numerous or complex. The rapid advances in science, systems, and information technology provide numerous advances in surgical training that continue to be the requirement and responsibility of general surgical training. The cultural changes in surgery include the team approach to provide services in surgical technologies, focus on the aging population, and outcomes assessment. The learning curve, for any and all of these procedures, is inevitably steep, and traditional resident training too often focuses on the more conventional procedures done in routine rotations. The need for formal training in advanced surgical technologies continues to be of utmost importance in these rapidly evolving times.

777. Marzouk M.,
Laparoscopic Gastric Banding: Long-Term Results,
*Obesity Surgery, 14*, 2004, 474.
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Physical, emotional, and social functioning are impaired in obesity. It is unknown whether and, if so, to what extent and in which domain obese subjects who lose weight may catch up to normal-weight levels. Our objective was to compare the health-related quality-of-life (HRQL) of obese subjects with that of a normal-weight reference group before and 1 year after a weight loss program that centered around laparoscopic and open gastric banding. METHODS: An HRQL questionnaire consisting of a battery of both generic and specific measures was administered to 50 morbidly obese subjects on 2 occasions and to 100 healthy, normal-weight subjects, matched for age, gender, education, and vocational training. In addition to weight loss and health gain, the influences of achieved weight loss goals, satisfaction with outcome and operative approach (laparoscopy/laparotomy) were assessed. RESULTS: Quality-of-life was significantly impaired in obese subjects. With a substantial weight loss of 35 kg and 42% loss of excessive weight, and correction of disturbed metabolic parameters, they significantly improved in general well-being, health distress, and perceived attractiveness, approaching halfway the values of a normal-weight reference group. Improvement in values for depression and self-regard lagged behind. In physical activity, they bypassed the reference group. Days of sick leave decreased to the level of the reference group. Improvements in HRQL paralleled the rate of weight loss. Personal satisfaction and surgical approach were of minor influence. CONCLUSIONS: The obese subjects’ impaired physical and social functioning improved considerably, catching up midway to normal-weight reference values after weight loss. Psychologic amelioration lagged behind. Whether the latter will catch up later and physical/social improvements will be maintained is the subject of further studies.
782. Meir E., Van Baden M.,
Adjustable Silicone Gastric Banding (ASGB) and Band Erosion (BE),
(ASGB and LAP-BAND® System Congress Presentation Abstract)

783. Meir E., Van Baden M.,
Adjustable Silicone Gastric Banding and Band Erosion: Personal Experience and Hypotheses,
(LAP-BAND® System Article)

**BACKGROUND:** Adjustable silicone gastric banding (ASGB) has been advocated as a minimally invasive procedure that is completely reversible for the surgical treatment of morbid obesity. Band erosion (BE) is one of the possible complications of ASGB. The authors report their experience with BE and discuss its possible causes. **METHODS:** Between February 1993 and February 1998, the authors performed 122 ASGB: 51 open and 71 laparoscopic procedures. **RESULTS:** Two cases of BE occurred (1.6%). **CONCLUSION:** Band erosion is a possible complication of ASGB that is often not diagnosed immediately. Prevention is essential and consists primarily in correct placement of the band. There appears to be only one solution to BE: removal of the band. Placement of a new band after removal is possible; the minimum interval is not known.

784. Meucci L., de Werra C., Formato A., De Luca M., Chiacchio C., Forestieri P.,
Adjustable Gastric Banding System (ASGB) (LAP-BAND®): Results From Our Laparotomic and Laparoscopic Experience,
(LAP-BAND® System Congress Presentation Abstract)

785. Meyer C., Clark A., Layani L.,
Does Follow-Up Attendance Influence the Weight Loss Outcome in Laparoscopic Adjustable Gastric Banding (LAGB) Patients?
(LAP-BAND® System Congress Presentation Abstract)
786. Meyer L., Rohr S., Becker J., Pradignac A., Meyer C., Schilenger J., Simon C.,
Retrospective study of laparoscopic adjustable silicone gastric banding for the treatment of morbid obesity: results and complications in 127 patients,
Diabetes Metab, 30, 2004, 53-60.
(LAP-BAND® System Article)

OBJECTIVES: Laparoscopic gastric banding is currently the most popular surgical technique for morbid obesity. This widespread use of surgery has been evaluated by a number of clinical studies, particularly on weight change. METHODS: In a retrospective study of 127 obese patients operated between 1996 and 2000, data were collected for weight change, medical and surgical complications. RESULTS: Of 127 patients, failures of gastric banding were noted during 2 surgical operations. The average follow-up period was 33 +/- 20 Months. Average weight loss in all patients was 19.9 +/- 5.3 kg (15.3 +/- 4.2%). No difference in weight loss was observed between diabetic and non-diabetic patients. During the follow-up, data were collected on 53 complications (42.4% of all gastric banding operations). 3 main types of complication were found: access port related complications (22.6% of the total), band slippage (20.7% of the total) and tubing related complications (16.9% of the total). No prognostic factor for these complications could be identified from multivariate analysis. CONCLUSIONS: Our results are very similar to those of other weight evolution studies. We found that there was a significant incidence of surgical and medical complications during the follow-up because of the meticulous way all complications were recorded, even the most insignificant. This morbidity must be borne in mind before surgery is performed.

787. Meyer R,
Rofecoxib reduces perioperative morphine consumption for abdominal hysterectomy and laparoscopic gastric banding,
(LAP-BAND® System Article)

No abstract available

788. Micheletto G., Perrini M., Rapetti R., Doldi S.,
The Complications of LAP-BAND® in the Treatment of Morbid Obesity,
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: The detection of a leakage in the system of the adjustable silicone gastric band (ASGB) may be difficult. Gastrografin injection into the port should be avoided because it acts like a glue and blocks the system. METHODS: A syringe containing saline and a syringe containing Thallium-201 chloride is connected to the 4-way stopcock which is connected to the needle. The needle is pushed into the port. The position is confirmed by injection and aspiration of saline. 2 ml of TL-201 chloride (74 MBp) is injected to locate the leakage in the system with planar images with a gamma camera (Elscint SP 6), 30 min, 2, 3, and 24 h after injection. RESULTS: The original ASGB was provided with an injection reservoir which, in our series, was found to be leaking in four cases (3%). CONCLUSIONS: Our technique for adjustment and leak detection appears to be simple and effective. Band-related problems such as reservoir leak should disappear with improvement of the material.

790. Miller K., Mayer E., Pichler M., Hell E.,
Quality-of-Life Outcomes of Patients with the LAP-BAND® vs Non-Operative Treatment of Obesity; Preliminary Results of an Ongoing Long Term Follow-Up Study,
(LAP-BAND® System Congress Presentation Abstract)

791. Miller K., Hell E.,
The Adjustable Silicone Gastric Band (LAP-BAND®) Versus the Swedish Adjustable Gastric Band (SAGB™): Preliminary Results of a Prospective Randomized Study,
Obesity Surgery, 7, 1997, 301.
(LAP-BAND® System Congress Presentation Abstract)

792. Miller K., Hell E., Schoen E., Ardelt E.,
Quality of Life Outcome of Patients with the LAP-BAND® vs Vertical Banded Gastroplasty: Results of a Long Term Follow-Up Study,
(LAP-BAND® System Congress Presentation Abstract)

793. Miller K., Hell E.,
Laparoscopic Adjustable Gastric Banding,
(LAP-BAND® System Article)

No abstract available
BACKGROUND: A body mass index of $>40$ kg/m$^2$ represents clinically severe obesity and warrants operative treatment if requested. The adjustable silicone gastric band and the Swedish adjustable gastric band are recently produced laparoscopic gastric restrictive devices. The aim of this study was to assess all complications linked to both the available gastric bands in a long-term follow-up. METHODS: In a prospective study, the effects, complications, and outcomes of this procedure were analyzed. The complications found were divided into early and general complications, and complications correlated to the bands. The technique of laparoscopic adjustable gastric banding is described. Follow-up was performed by the operating team. RESULTS: Between July 1994 and August 1998, the authors operated on 158 patients and performed 102 adjustable silicone gastric bandings and 54 Swedish adjustable gastric bandings. The mean age at surgery was 36 years (range 17-72). The mean preoperative weight was 136 kg (89-230). Of 158 patients who underwent laparoscopic procedures, 156 (98%) could be followed up (mean 28 months; duration of follow-up, 6 weeks to 46 months). In early postoperative complications that required operation, one trocar wound hematoma (0.6%) and one wound infection of the port site (0.6%) were observed. The late complications that required reoperation were two pouch dilatations (1.3%), three band leakages (2%), one band migration (0.6%), and one late infection of the port (0.6%). A debanding operation was necessary in one patient because of esophageal dysmotility disorder. No early or late postoperative mortality was registered. The overall reoperation rate is currently about 7%. CONCLUSION: The operation is safe and effective. Moreover, adjustable gastric banding is fully reversible and is adjustable to the patient's needs. This study verifies the importance of correct operating technique. The authors' study and experience clearly indicate that laparoscopic adjustable gastric banding is an attractive alternative in the surgical treatment of morbid obesity.
797. Miller K., Hell E.,
The Adjustable Silicone Gastric Band (LAP-BAND®) vs. the Swedish Adjustable Gastric Band (SAGB™) - A Prospective Randomized Study,
(LAP-BAND® System Congress Presentation Abstract)

798. Miller K., Hell E.,
Orlistat Treatment after Failure of the Adjustable Gastric Banding System,
(LAP-BAND® System Congress Presentation Abstract)

799. Miller K., Hell E.,
Laparoscopic Treatment of Complications after Adjustable Gastric Banding,
(LAP-BAND® System Congress Presentation Abstract)

800. Miller K., Hell E., Hutter J.,
Treatment of Complications in Bariatric Surgery,
*Obesity Surgery*, 10, 2000, 329.
(LAP-BAND® System Congress Presentation Abstract)

801. Miller K., Hell E.,
Laparoscopic Adjustable Gastric Banding - A Prospective Long Term Follow-Up Study,
(LAP-BAND® System Congress Presentation Abstract)

802. Miller K., Hoeller E., Strasser P., Hell E.,
Esophageal Motility in Vertical Banded Gastroplasty and Laparoscopic Adjustable Gastric Banding Patients, Pre- and Post-Operatively,
(LAP-BAND® System Congress Presentation Abstract)

803. Miller K., Hell E.,
Laparoscopic Adjustable Gastric Banding – A Prospective 9-Year Follow-Up Study,
*Obesity Surgery*, 13, 2003, 527.
(LAP-BAND® System Congress Presentation Abstract)
Conservative treatment has been shown in long-term studies to be ineffective in morbid obesity. Surgical treatments break down into restrictive, malabsorptive, combined restrictive and malabsorptive or motility-reducing procedures. Laparoscopic implantation of an adjustable gastric band is an efficient restrictive measure for treating the majority of patients with this condition. The adjustable gastric band enables weight loss and food intake to be adapted to the individual patient’s need. Eighty percent to 90% of these patients can expect to lose 55-70% of their excess weight. Vertical banded gastroplasty is losing ground among the restrictive options. Preliminary experiences are encouraging but the long term results are disappointing when assessed by the standard criteria. Gastric bypass is gaining ground in Europe and a standard procedure in USA. This operation is estimated to give 70-80% excess weight loss and provide better quality of life than restrictive procedures. The biliopancreatic diversion with duodenal switch combines a sleeve gastrectomy with a duodenoileal switch to achieve maximum weight loss. Consistent excess weight loss between 70 and 80% is achieved with acceptable decreased long-term nutritional complications. The laparoscopic approach to this procedure has successfully created a surgical technique with optimum benefit and minimal morbidity, especially in the super obese patient. Intra-gastric stimulation is the least invasive surgical procedure at present. However, the excess weight loss is lowest with this method at only 32% in the first 2 years after the operation. Provided safety recommendations are observed, laparoscopic operations for obesity are fairly low-risk. The mortality rate in centres with experienced staff is less than 0.3%. Surgical treatment for obesity has proved that it is the best and most effective means of preventing the life-threatening complications and serious degenerative problems associated with morbid obesity. There is no one operation that is effective for all patients.
807. Miller K, Hell E, Pump A,
Vertical Banded Gastroplasty vs. Adjustable Gastric Banding: A Prospective Long-Term Follow-Up Study,
Surgery for Obesity and Related Diseases, 2, 2006, 304.
(LAP-BAND® System Abstract)

808. Mittermair R., Weiss H., Aigner F., Weissenboech E., Lanthaler M., Nehoda H.,
Surgery Following Adjustable Gastric Banding: Is It Necessary to Deflate the Adjustable Band?
(LAP-BAND® System Congress Presentation Abstract)

809. Mittermair R., Weiss H., Aigner F., Weissenboech E., Lanthaler M., Nehoda H.,
Is it Necessary to Deflate the Adjustable Gastric Band for Subsequent Operations?
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) is an effective method in the treatment of morbid obesity. However, it is unknown, whether deflating the gastric band before operations under general anesthesia is necessary to avoid complications such as nausea, vomiting, respiratory complications, and weight regain. METHODS: Between January 1996 and June 2001, we performed LAGB on 408 patients at the University Hospital of Innsbruck. Of these patients, we identified 68 (16.7%) patients who were to undergo subsequent unrelated general, reconstructive, vascular, or orthopedic procedures. These patients were prospectively randomized into two groups: group 1 (n = 32) preoperative deflation of the adjustable band system and group 2 (n = 36) without preoperative deflation of the adjustable band system. RESULTS: There were no anesthetic or perioperative band-related complications in either group 1 or group 2. There were two reoperations necessary due to surgical complications unrelated to the gastric band. CONCLUSIONS: Operations after adjustable gastric banding can be safely performed without deflating the adjustable system.

810. Mittermair R., Aigner F., Nehoda H., Kirchmayer W., Peer R., Donnemiller E., Moncayo R., Weiss H.,
Band Leakage after Laparoscopic Adjustable Gastric Banding,
(LAP-BAND® System Congress Presentation Abstract)

811. Mittermair R, Aigner F, Nehoda H,
Super-Obesity (BMI >50 kg/m²) and Laparoscopic Adjustable Gastric Banding,
(LAP-BAND® System Abstract)
812. Mittermair R.,
Is Routine Preoperative Upper Endoscopy in Gastric Banding Really Necessary? Reply
*Obesity Surgery*, 16, 2006, 529-529
(LAP-BAND® System Article)

No abstract available

813. Mognol P., Chosidow D., Marmuse J.P.,
Laparoscopic Gastric Banding versus Laparoscopic Roux-en-Y Gastric Bypass for Super-Obese (BMI > 50): A Retrospective Study,
(LAP-BAND® System Congress Presentation Abstract)

814. Mognol P., Chosidow D., Marmuse J.P.,
Laparoscopic Conversion of Laparoscopic Gastric Banding to Roux-en-Y Gastric Bypass: A Series of 36 Patients,
*ASBS Presentation*, 2004, 47.
(LAP-BAND® System Congress Presentation Abstract)

815. Mognol P., Chosidow D., Marmuse J.,
Laparoscopic Conversion of Laparoscopic Gastric Banding to Roux-en-Y Gastric Bypass: A Review of 36 Patients,
(LAP-BAND® System Congress Presentation Abstract)

816. Mognol P., Chosidow D., Barel R., Johannet H., Marmuse J.,
Bariatric Surgery: A Retrospective Single Center Study About 955 Patients: What Have we Learned?
(LAP-BAND® System Congress Presentation Abstract)
817. Mognol P., Chosidow D., Marmuse JP,
Laparoscopic conversion of laparoscopic gastric banding to Roux-en-Y gastric bypass: a review of 70 patients, 
(LAP-BAND® System Article)

BACKGROUND: The feasibility and outcomes of conversion of laparoscopic adjustable gastric banding (LAGB) to laparoscopic Roux-en-Y gastric bypass (LRYGBP) was evaluated. METHODS: From November 2000 to March 2004, all patients who underwent laparoscopic conversion of LAGB to LRYGBP were retrospectively analyzed. The procedure included adhesiolysis, resection of the previous band, creation of an isolated gastric pouch, 100-cm Roux-limb, side-to-side jejuno-jejunostomy, and end-to-end gastro-jejunostomy. RESULTS: 70 patients (58 female, mean age 41) with a median BMI of 45+/−11 (27-81) underwent attempted laparoscopic conversion of LAGB to an RYGBP. Indications for conversion were insufficient weight loss or weight regain after band deflation for gastric pouch dilatation in 34 patients (49%), inadequate weight loss in 17 patients (25%), symptomatic proximal gastric pouch dilatation in 15 patients (20%), intragastric band migration in 3 patients (5%), and psychological band intolerance in 1 patient. 3 of 70 patients (4.3%) had to be converted to a laparotomy because of severe adhesions. Mean operative time was 240+/−40 SD min (210-280). Mean hospital length of stay was 7.2 days. Early complication rate was 14.3% (10/70). Late major complications occurred in 6 patients (8.6%). There was no mortality. Median excess body weight loss was 70+/−20%. 60% of patients achieved a BMI of <33 with mean follow-up 18 months. CONCLUSION: Laparoscopic conversion of LAGB to RYGBP is a technically challenging procedure that can be safely integrated into a bariatric treatment program with good results. Short-term weight loss is very good.

818. Mognol P., Chosidow D., Marmuse JP, 
Laparoscopic gastric bypass versus laparoscopic adjustable gastric banding in the super-obese: a comparative study of 290 patients, 
(LAP-BAND® System Article)

BACKGROUND: Controversy exists regarding the best surgical treatment for super-obesity (BMI >50 kg/m2). The two most common bariatric procedures performed worldwide are laparoscopic adjustable gastric banding (LAGB) and laparoscopic Roux-en-Y gastric bypass (LRYGBP). We undertook a retrospective single-center study to compare the safety and efficacy of these two operations in super-obese patients. METHODS: 290 super-obese patients underwent laparoscopic bariatric surgery: 179 LAGB and 111 LRYGBP. RESULTS: There were one death in both groups. The early complication rate was higher in the LAGB group (10% vs 2.8%, P<0.01). Late complication rate was higher in the LAGB group (26% vs 15.3%, P<0.05). Operating time and hospital stay were significantly higher in the LRYGBP group. LRYGBP had significantly better excess weight loss than LAGB (63% vs 41% at 1 year, and 73% vs 46% at 2 years), as well as lower BMI than LAGB (35 vs 41 at 18 months). CONCLUSION: LRYGBP results in significantly greater weight loss than LAGB in super-obese patients, but is associated with a higher early complication rate.
819. Mognol PM,
   Laparoscopic gastric bypass versus laparoscopic gastric banding for super-obese patients: a comparative study,
   (LAP-BAND® System Abstract)

820. Mognol PM,
   Bariatric surgery: a retrospective single center study of 955 patients: what have we learned?
   (LAP-BAND® System Abstract)

821. Mognol P, Marmuse J-P,
   Predictive Factors of Failure after Laparoscopic Gastric Banding,
   *Surgery for Obesity and Related Diseases*, 2, 2006, 306.
   (LAP-BAND® System Abstract)

822. Mognol P, Chosidow D, Marmuse JP,
   Predictive Factors of Failure after Laparoscopic Gastric Banding,
   *Obesity Surgery*, 16, 2006, 1010.
   (LAP-BAND® System Abstract)

823. Mognol P,
   Laparoscopic Conversion of Laparoscopic Gastric Banding to Roux-en-Y Gastric Bypass: A Review of 909 Patients,
   *Obesity Surgery*, 16, 2006, 1028,
   (LAP-BAND® System Abstract)

824. Mognol P,
   LAGB vs. LRYGBP for Super-Obese Patients,
   *Obesity Surgery*, 16, 2006, 1021,
   (LAP-BAND® System Abstract)

825. Mok E, Bazan H, Herron D,
   An unusual source of abdominal pain after adjustable gastric banding.
   *Surgery for Obesity and Related Diseases*, 1, 2005, 584-587.
   (LAP-BAND® System Article)

   No abstract available
BACKGROUND: Gastric banding is a well-established weight reduction operation that is effective in the treatment of severe obesity. Its metabolic and endocrine mechanisms of action, however, remain unclear. The aim of this study was to establish a rat model of gastric banding that would replicate the procedure performed in human obese patients. METHODS: Male Wistar rats were submitted either to gastric banding (n=5) or sham gastric banding (n=4), and were followed for 21 days. Detailed description on how to perform gastric banding in rats are herein described. RESULTS: The Wistar rats submitted to gastric banding showed a decrease in weight gain and food intake when compared to sham-operated rats. The cumulative weight gain during the 21 days after the surgical procedure was $143+/-2.58$ g for the gastric banded rats and $162+/-2.48$ g for the sham-operated animals ($P=0.001$). The cumulative food intake was $329+/-0.53$ g for the gastric banded rats and $380+/-15.22$ g for the sham-operated animals, also statistically significant ($P=0.025$). CONCLUSION: A rat model to study gastric banding is described. This model can now be used for experimental investigation of biochemical and molecular mechanisms of weight loss resulting from this type of surgery.

BACKGROUND: Bariatric surgery is expanding to meet the global epidemic of morbid obesity, because this surgery is successful in achieving sustained weight loss. After having recently established a rat model of gastric banding, our aim now was to investigate the relative fat mass content and the feeding patterns of gastric banded rats. METHODS: Two groups of Wistar rats, submitted either to gastric banding or to sham surgery, were followed up for 26 days regarding weight, daily food intake and feeding patterns both under resting conditions and when refed after fasting. Weight of the epididymal fat pad was used as a measure to evaluate changes in white adipose tissue in the rats. RESULTS: 10 days after surgery and thereafter, rats submitted to gastric banding showed the same daily food intake that was observed in sham-operated rats. Nevertheless, gastric banded rats kept lower body weights and were leaner than controls. These differences were associated with distinctive feeding patterns, both under resting conditions and when refed after fasting, suggesting that gastric banded rats present a significant increase in feeding frequency when compared with controls. CONCLUSION: This data is the first experimental evidence that an increase in feeding frequency is associated with weight loss after gastric banding, even if there is no decrease in total energy intake. Thus, medical advice on the advantages of fractionating daily caloric intake into multiple meals is further supported by the herein new information obtained in an animal model of gastric banding.

No abstract available


OBJECTIVE: To compare, in a prospective, randomized, single-institution trial laparoscopic adjustable silicone gastric banding (LASGB) with laparoscopic vertical banded gastroplasty (LVBG) in morbidly obese patients. SUMMARY BACKGROUND DATA: LASGB is a simple and safe procedure, but some reports have suggested disappointing long-term results. Despite the recent widespread use of LASGB, there are no prospective nor randomized trials comparing LASGB with other laparoscopic procedures. METHODS: A total of 100 morbidly obese patients, with body mass index (BMI) 40 to 50 kg/m2, without compulsive eating, were randomized to either LASGB (n = 49) or LVBG (n = 51). Minimum follow-up was 2 years (mean 33.1 months). RESULTS: There were no deaths or conversions in either group. Mean operative time was 94.2 minutes in LVBGs and 65.4 in LASGBs (P < 0.05). Early morbidity rate was lower in LASGBs (6.1%) versus LVBGs (9.8%) (P = 0.754). Mean hospital stay was shorter in LASGBs versus LVBGs: 3.7 days versus 6.6 (P < 0.05). Late complications rate in LVBGs was 14% (7 of 50) and in LASGBs 32.7% (16 of 49) (P < 0.05). The most frequent complication was the slippage of the band (18%). Late reoperations rate in LVBGs was 0% (0 of 50) versus 2.5% (12 of 49) in LASGBs (P < 0.001). Excess weight loss in LVBGs was, at 2 years, 63.5% and, at 3 years, 58.9%; in LASGBs, excess weight loss, respectively, was 41.4% and 39%. BMI in LVBGs was, at 2 years, 29.7 kg/m2 and, at 3 years, 30.7 kg/m2; in LASGBs, BMI was 34.8 kg/m2 at 2 years and 35.7 kg/m2 at 3 years. According to Reinhold’s classification, a residual excess weight <50% was achieved, at 2 years, in 74% of LVBG and 35% of LASGB (P < 0.001). CONCLUSIONS: This study demonstrates that, in patients with BMI 40 to 50 kg/m2, LASGB requires shorter operative time and hospital stay but LVBG is more effective in terms of late complications, reoperations, and weight loss.
A patient dose survey was carried out measuring the kerma-area product (KAP) values during radiological evaluation in the follow-up of bariatric surgery. The procedures were performed by three radiologists to adjust laparoscopic gastric bands and to detect postoperative complications after Roux-en-Y gastric bypass procedures to treat morbid obesity. Total fluoroscopy time, exposure factors and the overall contribution of fluoroscopy to the accumulated KAP value were recorded. The median KAP values were used to estimate organ doses and effective dose to a standard patient; the radiation risk associated with the procedures was also evaluated. The doses were smaller for one of the three radiologists, owing to a more appropriate beam collimation and a reduction of the screening time. The KAP values ranged from 1.6 to 7.1 Gy cm\(^2\) for the laparoscopic adjustable gastric banding management, and from 3.0 and 8.3 Gy cm\(^2\) for the radiological examinations after gastric bypass. As a whole, the effective doses associated to these procedures were between 0.5 and 2.7 mSv. The organs receiving the highest doses were not only breast, stomach, pancreas and liver, but also lungs, owing to their high radiosensitivity, significantly contributed to the effective dose.

Obesity is a serious health problem in the United States today, and surgical treatment is recognized as long-term effective therapy. Minimally invasive techniques are becoming the "gold standard" approach to the treatment of disease, and robotic surgery has the potential to advance the use and development of minimally invasive procedures. In this article, we report our experience using robotically assisted technology to perform bariatric surgery. From mid 2002 to early 2004, 110 robotically assisted Roux-en-Y gastric bypass and 32 robotically assisted gastric banding procedures were performed at our institution. The mean preoperative body mass index was 46 for the patients receiving Roux-en-Y gastric bypass and 49 for the patients receiving gastric banding. The mean length of stay was 2.1 days and 1 day for patients in the 2 respective groups. There were 3 strictures in the Roux-en-Y group and 1 marginal ulcer in the gastric banding group; no leaks were observed in any patients in either group. There was 1 conversion to a laparoscopic procedure in the Roux-en-Y gastric bypass group. We conclude that robotically assisted bariatric surgery will allow more surgeons to offer patients the same safety and successful outcomes currently available through open techniques but without the significant morbidities of large surgical wounds.
832. Moser F, Gorodner MV, Galvani CA, Baptista M, Chretien C, Horgan S,
    Pouch Enlargement and Band Slippage: Two Different Entities,
    (LAP-BAND® System Article)

BACKGROUND: Pouch enlargement and band slippage are the most common late complications of laparoscopic adjustable gastric banding (LAGB). Often, confusion exists among surgeons regarding the denomination or even the treatment of these two different entities. This study aimed to establish the differences in clinical presentation, radiologic features, and management between pouch enlargement and band slippage. The authors hypothesized that pouch enlargement can be managed nonoperatively (via band deflation), that band slippage is an acute complication requiring surgical treatment, and that tailored adjustment allows earlier diagnosis of pouch enlargement in asymptomatic patients. METHODS: From March 2001 to December 2004, 516 patients underwent LAGB placement. Barium swallow was performed preoperatively, postoperatively, and during band adjustments ("tailored adjustment"). Pouch enlargement was defined as dilation of the pouch, and band slippage was considered when band and stomach were prolapsed. Four radiologic types of pouch enlargement were considered: band 45 degrees, band 45 degrees with covering of the band, band 0 degrees, and band smaller than 0 degrees. RESULTS: A total of 1,600 barium swallows were performed with 516 patients. As a result, pouch enlargement was diagnosed for 61 patients (12%) and band slippage for 12 patients (2%). CONCLUSION: In this study, pouch enlargement was found to be a chronic complication that can be managed conservatively with a 77% success rate. Tailored adjustment allows early diagnosis of pouch enlargement, thus preventing adjustments in patients with undiagnosed pouch enlargement. Surgical treatment should be considered when medical treatment fails. By comparison, band slippage is an acute complication that requires surgical treatment in every case (100%).

833. Mouiel J.,
    What Laparoscopic Procedure for Morbid Obesity? Prospective Study of 100 Patients Concerning GB, VBG, GBP,
    (LAP-BAND® System Congress Presentation Abstract)

834. Moustafa A., el Gelil E.,
    Gastric Partition Surgery for Egyptian Morbidly Obese,
    *Obesity Surgery*, 10, 2000, 321.
    (LAP-BAND® System Congress Presentation Abstract)

835. Muelle E.,
    Gastric banding with adjustable and non-adjustable gastric band,
    (LAP-BAND® System Abstract)
836. Mueller C., Dugay G., Rosario G., Ren C.,
An Effective Algorithm for Identification of Gastric Prolapse after Laparoscopic
Adjustable Gastric Banding (LAGB),
*ASBS Presentation*, 2004, 4-5.
(LAP-BAND® System Congress Presentation Abstract)

5-Year Results of Laparoscopic Gastric Banding for Morbid Obesity,
(LAP-BAND® System Congress Presentation Abstract)

838. Myers J., Bate F., Sarker S., Shayani V.,
Pregnancy outcome following laparoscopic adjustable gastric banding: what is the
optimal band adjustment regimen?
*2005 SAGES Abstract No. P077, 144*.
(LAP-BAND® System Abstract)

839. Myers J., Sarker S., Shayani V.,
Treatment of massive superobesity with laparoscopic adjustable gastric banding,
*Surgery for Obesity and Related Diseases* 1, 2005, 248.
(LAP-BAND® System Abstract)

840. Myers J., Fischer G., Sarker S., Shayani V.,
Gallbladder disease in patients undergoing laparoscopic adjustable gastric banding,
*Surgery for Obesity and Related Diseases* 1, 2005, 262.
(LAP-BAND® System Abstract)
BACKGROUND: Controversy exists concerning the optimal treatment of patients with massive super-obesity (body mass index >60 kg/m(2)). The ideal surgical operation must balance optimal weight loss with minimal morbidity and mortality. We report our results for this patient population undergoing laparoscopic adjustable gastric banding (LAGB). METHODS: We performed a retrospective review of all consecutive patients undergoing LAGB at our institution. Patients with a preoperative body mass index >60 kg/m(2) were identified and their charts were reviewed. Weight loss data were collected when the patients returned for band adjustments. All band adjustments were patient driven and performed under fluoroscopic guidance. RESULTS: Between November 2001 and October 2004, 352 patients underwent LAGB. Of these, 53 had a preoperative body mass index >60 kg/m(2) (15%). The mean absolute weight and body mass index was 186.6 kg (range 139.6-250.6) and 66 kg/m(2) (range 60.0-79.8), respectively. The average follow-up was 12.5 months (range 1.3-31). The most prevalent co-morbidities were obstructive sleep apnea (64%), hypertension (42%), and diabetes mellitus (42%). Postoperative complications included one band removal for chronic obstruction, one band revision for slippage, and one nonfatal pulmonary embolism. The mean percentage of excess weight loss was 15% (-1.1 to 27.4) with <6 months of follow-up, 28.1% (range 1.9-44.5) with 6-12 months of follow-up, 35.1% (range 8.8-84.9) with 12-18 months of follow-up, and 42.9% (range 15.7-80.1) with >18 months of follow-up. Compared with our cohort of nonmassive super-obese patients, massive super-obese patients required a longer period of follow-up to accomplish a similar percentage of excess weight loss. CONCLUSION: LAGB is an appropriate surgical option for the treatment of massive super-obesity. The procedure can be performed with minimal morbidity and mortality and leads to promising medium-term weight loss. Longer term follow-up of massive super-obese patients is necessary and may demonstrate even more successful results.
INTRODUCTION: Laparoscopic adjustable gastric banding is an effective and safe surgical modality for the treatment of morbid obesity. Erosion of the band into the stomach has been reported. No reports are available on erosion of the Lap-Band following diverticulitis of the colon. CASE REPORT: A 31-year-old female with a body mass index (BMI) of 52 underwent an uneventful laparoscopic Lap-Band placement. Postoperative contrast study revealed good positioning of the band and no evidence of leakage. The patient’s recovery was uneventful except for an elevated temperature of 101.5 degrees F that was attributed to her atelectasis. She had lost 52 lbs. and remained asymptomatic for 3 months. Following this period of successful weight loss, she presented with complaints of abdominal pain for 3 days associated with diarrhea of 7 days’ duration. A Gastrografin contrast study showed no evidence of a leak or band slippage but erosion was suspected. Upper endoscopy confirmed erosion of the band into the stomach. Computed tomography (CT) of the abdomen revealed thickening of the sigmoid and descending colon with mesenteric fat stranding consistent with diverticulitis. Laparoscopic removal of the Lap-Band system was performed. CONCLUSION: We postulate that colonic diverticulitis could have been a precipitating factor in the development of band erosion. Intraabdominal sepsis resulting in subacute infection of the Lab-Band system may be the underlying factor.
     Is a Routine Gastrografin® Swallow Following Laparoscopic Gastric Banding Mandatory?
     Obesity Surgery, 11, 2001, 419.
     (LAP-BAND® System and SAGB Abstract)

847. Nehoda H., Hourmont K., Mittermair R., Lanthaler M., Sauper T., Peer R., Aigner F., Weiss H.,
     Is a Routine Liquid Contrast Swallow Following Laparoscopic Gastric Banding Mandatory?
     (LAP-BAND® System and SAGB Article)

BACKGROUND: The authors assess the value of liquid contrast medium swallow as a method to
detect postoperative complications after laparoscopic adjustable gastric banding (LAGB) for the
patients (295 women, 55 men) underwent a LAGB operation. All data were prospectively collected in
a computerized databank. All patients underwent a jopomidol swallow (JS) study in the early
postoperative phase to exclude perforation of the esophagus or stomach, which is one of the most
serious complications occurring after the LAGB operation. Furthermore, the JS was performed to
confirm band position and to exclude early pouch dilatation. RESULTS: Out of the 350 LAGB
operations, 6(1.8%) early pouch dilatations and 4(1.2%) stomach perforations occurred. All early
pouch dilatations were recognized on postoperative JS and immediately repaired laparoscopically. Of
the perforations, one was recognized intraoperatively, and the other three were diagnosed
postoperatively, either by contrast media extravasation on the JS (two patients) or by computer
tomography. CONCLUSION: Presently, all patients undergo routine postoperative JS, which exposes
them to radiation, causes patient discomfort, and entails additional costs of approximately 100 US$
per patient. Of the last 250 patients in our series, there have not been any cases of early pouch
dilatation and since 1998 only one case of perforation has occurred, which could be easily suspected
clinically. Therefore, we believe that in experienced centers, it is not necessary to perform routine
postoperative contrast media studies and recommend JS only in cases of complicated postoperative
courses.

848. Nehoda H.,
     Letter to the Editor,
     (LAP-BAND® System and SAGB - Other)

849. Nehoda H., Lanthaler M., Mittermair R., Holler E., Weiss H., Aigner F.,
     Bariatric procedures after failed gastric banding,
     Surgery for Obesity and Related Diseases 1, 2005, 268.
     (LAP-BAND® System Abstract)
Access port site hernia is a rare complication associated with the laparoscopic adjustable gastric band (LAGB). Specifically, this unique problem occurs when a fascial defect allows herniation adjacent to the Silastic tubing connects the LAGB to the access port. A 48-year-old woman who had previously undergone placement of LAGB presented with a bulge lateral to the access port; physical examination revealed a hernia near the access port. At laparoscopy, a large portion of omentum was herniated lateral to the Silastic tubing at the port site. This was laparoscopically repaired by first reducing the omentum and then placing a surgical mesh underlay to cover the defect; the patient recovered uneventfully. Access port site hernia is a rare complication with only a single case report published in the literature. We present a case of access port site hernia that was laparoscopically repaired. In addition, we have identified several important technical aspects that may contribute to the development of access port site hernias.
Endoscopic gastric band removal (AGB) with the gastric band cutter (GBC): multicentric experience in 44 cases,
*Obesity Surgery, 15, 2005, 987.*
(LAP-BAND® System Abstract)

Laparoscopic Adjustable Gastric Banding Prior to Renal Transplantation,
*Obesity Surgery, 15, 2005, 567-570.*
(LAP-BAND® System Article)

End-stage renal failure is most commonly caused by the obesity-related diseases, diabetes mellitus and essential hypertension, and is best treated with renal transplantation. Obesity may contribute to poor patient and graft survival, and is an exclusion criterion in some renal transplant programs. Diet and exercise programs have not proven to be effective for weight loss before transplantation, and bariatric surgery in any form has not been used in this setting before. We report three morbidly obese patients who underwent laparoscopic adjustable gastric banding to meet the criteria for renal transplantation and subsequently were successfully transplanted.

Laparoscopic Roux-en-Y gastric bypass vs. laparoscopic adjustable gastric banding for treatment of morbid obesity,
(LAP-BAND® System and Gastric Bypass Article)

Bariatric surgery is a rapidly growing discipline in General Surgery. Roux-en-Y gastric bypass (GBP) is currently the most commonly performed bariatric surgical procedure for treatment of morbid obesity in the United States (U.S). The laparoscopic approach to (GBP) has led to a greater acceptance for surgical treatment of morbid obesity by the public and, in return, more surgeons are becoming interested in learning laparoscopic bariatric surgery to meet the high demand. Laparoscopic adjustable silicone gastric banding was approved in the U.S. by the Food and Drug Administration (FDA) for clinical use in 2001, and is emerging as an alternative laparoscopic option in management of morbid obesity. This chapter reviews the indications, techniques, and outcomes of laparoscopic GBP vs. laparoscopic adjustable gastric banding. The advantages and disadvantages of laparoscopic adjustable gastric banding compared to laparoscopic GBP is discussed.

SAGES Bariatric Surgery Outcome Initiative,
*2005 SAGES Abstract No. 5025, 88.*
(Bariatric Surgery Abstract)
HYPOTHESIS: Bariatric surgery performed at US academic centers is safe and associated with low mortality. DESIGN: Multi-institutional consecutive cohort study. SETTING: Academic medical centers. PATIENTS AND INTERVENTIONS: We audited the medical records from 40 consecutive bariatric surgery cases performed between October 1, 2003, and March 31, 2004, at each of the 29 institutions participating in the University HealthSystem Consortium Bariatric Surgery Benchmarking Project. All medical records that met inclusion criteria (patient age, >17 and <65 years; and body mass index [calculated as weight in kilograms divided by the square of height in meters], 35-70) and exclusion criteria (previous bariatric surgery) were reviewed and data were collected on a standardized form. MAIN OUTCOME MEASURES: Demographic data, operative time, blood loss, transfusion requirement, complications, readmission, reoperation, and in-hospital and 30-day mortality. RESULTS: Data from 1144 bariatric surgery cases were reviewed from 29 University HealthSystem Consortium institutions. The specific bariatric procedures included gastric bypass (91.7%), gastroplasty or gastric banding (8.2%), and biliopancreatic diversion (0.1%). For gastric bypass procedures (n = 1049), the mean patient age was 43 years and mean body mass index was 49; 76% of procedures were performed laparoscopically, with a conversion rate of 2.2%; the overall complication rate was 16%, with an anastomotic leakage rate of 1.6%; the 30-day readmission rate was 6.6%; and the 30-day mortality rate was 0.4%. For restrictive procedures (n = 94), the mean patient age was 45 years and mean body mass index was 45; 92% of procedures were performed laparoscopically with no conversion; the overall complication rate was 3.2%; the 30-day readmission rate was 4.3%; and the 30-day mortality rate was 0%. CONCLUSIONS: Within the context of the 2004 University HealthSystem Consortium Bariatric Surgery Benchmarking Project, the risk for death within 30 days after bariatric surgery at academic centers is less than 1%. In addition, the practice of bariatric surgery at these centers has shifted from open surgery to predominately laparoscopic surgery. These quality-controlled outcome data can be used as a benchmark for the practice of bariatric surgery at most US hospitals.

858. Nickel C., Widermann C., Harms D., Leiberich PL, Tritt K., Kettler C., Lahmann C., Rother WK, Loew TH, Nickel MK.,
Patients with Extreme Obesity: Change in Mental Symptoms Three Years After Gastric Banding,
(Gastric Banding Article)

No abstract available
Patients with Extreme Obesity: Change in Mental Symptoms Three Years after Gastric Banding,
(LAP-BAND® System Article)

No abstract available

860. Nicolai A., Ippoliti C., Petrelli M.,
Laparoscopic Adjustable Gastric Banding: Essential Role of Psychological Support,
(LAP-BAND® System Article)

BACKGROUND: A follow-up study of laparoscopic adjustable gastric banding (LAGB) in morbidly obese patients was conducted, with special emphasis on psychological aspects. MATERIALS AND METHODS: 128 patients (98/30 females/males) underwent LAGB between October 1995 and March 2001. Age was 38 +/- 9 years, body mass index (BMI) 42.72 +/- 4.25 kg/m2 and body weight 124 +/- 25 kg (mean +/- 5D). Weight loss, early and late complications, band calibrations and difference between patients with and without psychotherapy were analysed. Psychological status was investigated before and during LAGB treatment using MMPI. Quality of life was investigated using MOS SF36. RESULTS: Median BMI decreased from 42.7 preoperatively to 31.0 kg/m2 after 12 months. Reduction of BMI was already significant (P < 0.01) after 3 months. In the following 12 months, median BMI wavered between 31.0 and 29.5 kg/m2. Best results were achieved in patients who followed psychotherapy. CONCLUSION: LAGB gave therapeutic success (progressive and significant weight loss). Psychotherapy was not only a simple support to diet but also an important part of the multidiscipline treatment. For best results, the team must care for patients individually and not just follow the same fixed protocol.
BACKGROUND: Ghrelin is a recently discovered orexigenic gastric hormone, whose production is induced by lack of food in the stomach. In morbidly obese individuals, ghrelin levels are low compared to lean persons. During dieting, plasma ghrelin levels increase, leading to an orexigenic signal, which could explain the lack of success of dieting in morbidly obese individuals. Morbid obesity is best treated with bariatric surgery, in which gastric bypass is reported to be more effective than restrictive surgery. A possible explanation could be the difference in plasma ghrelin levels after both operations for bariatric surgery. In this study, plasma ghrelin levels were investigated during a 2-year follow-up. METHODS: 17 morbidly obese patients received gastric restrictive surgery. Plasma ghrelin, leptin and insulin levels were evaluated preoperatively and 1 year and 2 years postoperatively. RESULTS: BMI decreased from 47.5 +/- 6.2 kg/m(2) to 33.2 +/- 5.8 kg/m(2) (P <0.001). Plasma ghrelin levels were significantly increased 1 year (P <0.05) and 2 years (P <0.02) postoperatively. Fasting plasma leptin and insulin levels were significantly lower at 2 years after surgery (P <0.001). CONCLUSION: After gastric restrictive surgery, ghrelin levels increased, in contrast to the reported fall in ghrelin levels after gastric bypass. This difference in ghrelin levels between these operations may be the key to understanding the superiority of gastric bypass in sustaining weight loss compared with restrictive surgery.

AIM OF THE STUDY: Mid-term assessment of laparoscopic adjustable silicon gastric banding (Lap-Band) by a specific score. PATIENTS AND METHODS: One hundred consecutive patients received by mail 12 to 54 months after laparoscopic adjustable gastric banding a questionnaire including the Bariatric Analysis and Reporting Outcome System (BAROS) which is the only specific and validated instrument for measuring the quality of life after bariatric surgery. This score includes five categories of results (failure, fair, good, very good, excellent). It uses three major fields: the quality of life, excess weight loss, and medical co-morbidities evaluation. RESULTS: Seventy three patients answered back with a mean follow up of 24.6 +/- 10 months. Forty six (2/3) had lost more than 50% of their weight excess. Sixty six experienced an improvement of their medical conditions following surgery. Final results were good or excellent for 60 patients (82% of those who answered back). Failure was reported in 7 patients (2 "sweet eaters" and 2 pouch dilatations) which needed a surgical treatment. CONCLUSION: This evaluation based on the BAROS confirms its validation in France and the good mid-term results of bariatric surgery based on the Lap-Band.
863. Nini E., Slim K.,
Correspondence, The Need for a Modified BAROS for Gastric Banding,
(LAP-BAND® System Article)

No abstract available

864. Niville E., Vankeirsbilck J., Dams A., Thierry A.,
Laparoscopic Adjustable Esophagogastric Banding: a Preliminary Experience,
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable gastric banding is an efficient surgical method in the
treatment of morbid obesity. In order to reduce the number of complications, we have modified the
technique to what we term ‘laparoscopic adjustable esophagogastric banding’. METHODS: Between
December 1994 and July 1997, 126 laparoscopic adjustable banding procedures were carried out. Of
these, 40 underwent a gastric banding operation (group 1), and 86 underwent an esophagogastric
banding procedure (group 2). RESULTS: The percentage loss of excess body weight curve was less
rapid in group 2 compared to group 1 due to a different strategy in band filling. Follow-up to date
shows that no problems with the pouch or the stoma have arisen in the esophagogastric banding
group. CONCLUSIONS: Laparoscopic adjustable esophagogastric banding is a simpler and safer
procedure than laparoscopic adjustable gastric banding. It also works as a very efficient anti-reflux
procedure, at least in the short term. It appears to be equally efficient as a weight-reducing operation
as gastric banding. Further follow-up of the patients involved is necessary in order to evaluate the
results in the longer term.

865. Niville E., Dams A., Thierry A.,
Laparoscopic Repositioning of an Adjustable Silicone Gastric Band for Pouch Dilatation
and Stoma Obstruction,
(LAP-BAND® System Article)

Pouch dilatation with stoma obstruction is a well-known late complication after adjustable gastric
banding operations for morbid obesity. Surgical treatment of this problem usually results in removal
of the band, with or without replacement by another, or in repositioning of the band via laparotomy.
We present the case of a patient with late pouch dilatation and stoma obstruction after placement of a
Laparoscopic Adjustable Gastric Banding system (LAGB-BioEnterics) and in whom the adjustable
band was laparoscopically opened, disconnected from the access port, and repositioned more
proximally on the stomach. The postoperative course was uneventful. A postoperative radiographic
contrast examination showed a correct repositioning of the band. The case demonstrates that the
LAGB can be successfully opened and repositioned by a minimal invasive procedure. This is the first
time to our knowledge that such a procedure has been reported.
BACKGROUND: Pathologic late pouch dilation is the most frequent complication following gastric banding procedures for morbid obesity. In this study, possible predictive factors were sought. The treatment of these complications and the final outcome are discussed. METHODS: Between December 1994 and December 1997, 171 patients underwent laparoscopic adjustable banding for morbid obesity. 40 patients underwent classic gastric banding (Group 1), and 131 patients underwent esophagogastric banding (Group 2). RESULTS: Pouch dilation developed in 6 patients (15%) in Group 1 and 12 patients (9.2%) in Group 2. There were no significant predictive factors, although the complication occurred more frequently in patients with presurgical hiatus hernia. The type of dilation was different for each group, as was the surgical treatment. Laparoscopic repositioning of the band was always possible and was uncomplicated. The long-term outcome has been good, and weight loss has been maintained. CONCLUSIONS: A frequent complication following banding procedures for morbid obesity is pathologic late pouch dilation. In experienced hands, when appropriate surgical treatment is carried out, this is not a major problem. Nevertheless, efforts should be made to decrease the number of late dilations.
BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) is an effective and safe surgical treatment for morbid obesity. Migration of the band through the stomach wall is a well-known late complication that may jeopardize the aim of the treatment--permanent weight reduction. METHODS: 301 patients were followed for > or = 2 years (mean 39 months) after a Lap-Band procedure. Cases of erosion were studied retrospectively. RESULTS: 5 patients (1.66%) developed erosions. Laparoscopic band removal was carried out in these 5 cases without complication. The first 4 have received a new Lap-Band, and all are doing well. CONCLUSION: Band erosion is a bothersome late complication after LAGB and requires band removal. Rebanding is a feasible option. Further study and longer follow-up are necessary to determine whether these patients will develop erosion again.

BACKGROUND: Late band erosion is an uncommon complication after laparoscopic adjustable gastric banding (LAGB). Overall erosion rate in our practice is approximately 1.6%. Our first 10 erosion patients underwent a rebanding procedure after previous Lap-Band removal. This study gives the results of midterm follow-up. METHODS: 10 patients underwent Lap-Band removal for erosion. Then, 4 to 6 months after band removal, between December 1999 and February 2002, the 10 patients underwent LAGB again. Post-operatively, patients were seen at least every 3 months, and routine endoscopy was performed 1, 2 and 3 years after rebanding. Follow-up in this study was 36-63 (mean 48) months. RESULTS: No postoperative complications occurred; however, the first patient required conversion to laparotomy. Mean BMI was 40.6 (34-50) at the time of the initial LAGB, 34.3 (31-44) at the time of rebanding, and is 28.5 (22-38) at present. There have been 2 late complications: 1 pouch dilatation and 1 port leak. No re-erosions have developed. Satisfaction has been excellent in 9 patients and moderate in 1. CONCLUSION: Laparoscopic rebanding is a safe, feasible, minimally invasive and efficacious option as a second bariatric procedure after Lap-Band removal for erosion. However, if the patient is not pleased with the first band, a different bariatric operation should be considered. Our results in the mid-term are excellent, but longer follow-up is necessary to draw definitive conclusions.
872. Niville ECL,
    Results of lap rebanding procedures after LAP-BAND removal for band erosion – a mid-
to-long-term study,
    (LAP-BAND® System Abstract)

873. Nocca D., Frering V., Gallix B., de Seguin des hons C., Noel P., Foulonge M., Millat B.,
    Fabre J.,
    Migration of adjustable gastric banding from a cohort study of 4,236 patients,
    (LAP-BAND® System Article)

BACKGROUND: Experience was gained management of intra-gastric migration of adjustable gastric
banding. METHODS: From July 1996 to January 2003, 4236 patients who underwent laparoscopic
adjustable gastric banding were proposed for routine follow-up. Gastrograms were performed in case
of band adjustment. Radiological controls and endoscopy were performed according to symptoms.
RESULTS: A total of 45 cases of band migration (1.6%) were diagnosed during follow-up. All but one
of the migrated bands were removed laparoscopically either by a dissection outside the stomach or
through a short gastrotomy. Mortality was 0% and morbidity 8% (n = 4). CONCLUSION: The risk of
an intragastric band migration remains low in the literature but could grow on account of the longer
follow-up of patients. The retrieval of the band is the gold standard and must be planned promptly or
delayed according to symptoms.

874. Nowara H.,
    Laparoscopic Adjustable Gastric Banding: The Egyptian Experience,
    *Obesity Surgery, 10*, 2000, 325.
    (LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Surgery can provide effective long-term treatment for morbid obesity. The purpose of this study is to present an Egyptian experience of laparoscopic adjustable silicone gastric banding (LASGB) as a safe and effective treatment. METHODS: 108 morbidly obese patients having body mass index (BMI) > 40 kg/m² were studied. 26 patients had a BMI > 50 kg/m² and < 60 kg/m², while 21 patients had a BMI ≥ 60 kg/m². The procedure was performed through a 4 or 5 trocar technique. RESULTS: Mean age was 32.3 years. Mean BMI was 48.9 kg/m². All except two procedures were completed by laparoscopy. Mean hospital stay was 2.2 days. Mean BMI after 12 months was 37.2 kg/m² and after 24 months was 34.3 kg/m². Mean follow-up was 2.1 years and included 87 patients (81%). Complications included: gastric perforation (1), pleural injury (1), liver injury (1), port complications (6), periband sepsis (1) and slippage (3). There were no mortalities in this series. CONCLUSIONS: LASGB proved to be safe and effective for the treatment of morbid obesity in Egyptian patients.
The LAP-BAND® Provides Effective Control of Morbid Obesity – A Prospective Study of
350 Patients Followed For Up to 4 Years,
(LAP-BAND® System Congress Presentation Abstract)

Prospective Study of a Laparoscopically Placed, Adjustable Gastric Band in the
Treatment of Morbid Obesity,
(LAP-BAND® System Article)

BACKGROUND: Surgical control of morbid obesity should benefit from a minimally invasive
approach and the ability to adjust the degree of gastric restriction. METHODS: The Lap-Band
adjustable gastric banding system was evaluated prospectively in a consecutive series of 302 patients,
and data on perioperative outcome and weight loss pattern at up to 4 years of follow-up are
presented. Some 302 patients (89 per cent women; mean age 39 years, mean weight 124 kg) were
entered into the study. Laparoscopic placement was used in 277 patients. Previous gastric stapling
surgery was the principal reason for an elective open approach. RESULTS: The incidence of
significant early complications was 4 per cent and included two perforations of the stomach after
open placement. The mean length of stay after laparoscopic placement was 3.9 days and only one
complication (infected reservoir site) occurred in these patients. The principal late complication of
prolapse of the stomach through the band occurred in 27 patients (9 per cent). Significant
modification of technique and patient care has enabled reduction of this complication in the latter
part of the series. Mean(s.d.) excess weight loss was 51.0(17) per cent at 12 months (n = 120), 58.3(20)
per cent at 24 months (n = 43), 61.6(2) per cent at 36 months (n = 25) and 682(21) per cent at 48 months
(n = 12). CONCLUSION: The Lap-Band is an effective method for achieving good weight loss in the
morbidly obese at up to 4 years of follow-up. Laparoscopic placement has been associated with a
short length of stay and a low frequency of complications. The ability to adjust the setting of the
device to achieve different degrees of gastric restriction has enabled progressive weight loss
throughout the period of study.

882. O’Brien P., Dixon J., Brown W.,
LAP-BAND® Placement – A Prospective Study of Outcomes for 632 Patients with up to 5
Year Follow-Up,
*Obesity Surgery*, 10, 2000, 144.
(LAP-BAND® System Congress Presentation Abstract)

883. O’Brien P., Dixon J., Brown W.,
Revisional Surgery - Is Change to LAP-BAND® Placement Effective?
*Obesity Surgery*, 10, 2000, 145.
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: The safety and effectiveness of conversion to the Lap-Band system, of patients who had failure of adequate weight loss and/or severe symptoms from prior bariatric procedures has been measured by prospective evaluation of a consecutive group of 50 patients. METHODS: The patients were drawn as a subgroup of 713 patients who had placement of the Lap-Band system between July 1994 and May 2000. The preceding procedures were gastroplasty (35 patients), non-adjustable gastric banding (11), gastric bypass (2) and jejuno-ileal bypass (2). All operations were by open laparotomy. Initial reversal of the initial procedure was performed in 28 patients. M:F ratio was 6%/94%. Inadequate weight was the primary problem in 69%, and symptoms of obstruction were present in 31%. RESULTS: Significant perioperative complications occurred more frequently than after primary placement (17% vs 1.1%). However, late complications were less frequent (2% vs 18%). In particular, there have been no occurrences of prolapse (slippage) of the stomach through the band or erosion of the band into the stomach in this group to date. Weight loss of 47% of excess weight had occurred at 3-year follow-up. This is not significantly different from the 53% EWL in the primary Lap-Band group. All symptoms of obstruction were relieved by the revision, and a number of co-morbidities are seen to be markedly improved. CONCLUSIONS: We observe that, when compared to primary Lap-Band placement, revision of failed bariatric procedures to Lap-Band is associated with more perioperative adverse events but fewer late complications. Weight loss is equivalent and is associated with marked improvement in co-morbidities and quality of life. The outcomes are better than have been achieved by revision to another form of gastric stapling and should be considered in those patients who have had an unsatisfactory outcome from other bariatric procedures.

885. O’Brien P., Dixon J.,
Esophageal Function and Disease-Influence of Placement of the LAP-BAND® System,
(LAP-BAND® System Congress Presentation Abstract)
The prevalence of obesity is increasing worldwide. In the United States, in 1999, 27% of adults had a body mass index >30 kg/m(2), almost double the prevalence of 20 years earlier. The estimated mortality from obesity-related diseases in the United States is approximately 300,000 annually and growing. In the future, mortality related to obesity is expected to exceed that of smoking. Numerous diseases are caused or made worse by obesity. These include type 2 diabetes; hypertension; dyslipidemia; ischemic heart disease; stroke; obstructive sleep apnea; asthma; nonalcoholic steatohepatitis; gastroesophageal reflux disease; degenerative joint disease of the back, hips, knees, and feet; infertility and polycystic ovary syndrome; various malignancies; and depression. Type 2 diabetes is perhaps the most visible obesity-related problem. Present in at least 14 million Americans, it leads to serious complications and premature death. It is largely caused by obesity, and is generally cured by weight loss. The quality of life of the obese is markedly reduced, and the costs to health care systems are great. Preventive programs have yet to affect the rising prevalence. An effective solution is needed.

Following its introduction in 1993, the LAP-BAND (INAMED Health, Santa Barbara, CA) has been used extensively across the world for the treatment of obesity, and data on safety and effectiveness are now available. This review draws on the literature and our own clinical patient base to provide an overview of the early and late problems associated with LAP-BAND placement and its effects on weight loss. It has proved to be a remarkably safe procedure. A report analyzing international data on laparoscopic adjustable gastric bands identified 3 deaths in 5,827 patients (approximately 1 in 2,000). In our series of 1,120 patients, there have been no deaths and no life-threatening perioperative complications. Significant early complications occurred in 17 (1.5%) of our patients; late problems have been more common, particularly during our early experience. Prolapse of the stomach through the band occurred in 125 (25%) of our first 500 patients but has occurred in only 28 (4.7%) of our last 600 patients. Erosion of the band into the stomach occurred in 34 patients (3%); all occurred in the first 500 patients. No erosions have occurred in the last 600 patients. Both problems are treated laparoscopically by removal and replacement. Combined international data show that weight loss after LAP-BAND placement is characterized by steady progressive weight loss over a 2- to 3-year period, followed by stable weight out to 6 years. This pattern reflects the benefit of adjustability. For the international series, the percent excess weight loss (%EWL) at 2 years has been between 52% and 65%. In our series, %EWL at 5 years and 6 years was 54% and 57%, respectively. The LAP-BAND is proving to be extremely safe, able to facilitate good weight loss, and able to maintain weight loss over time.
BACKGROUND: Obesity is now one of our major public health problems. Effective and acceptable treatment options are needed. The Lap-Band system is placed laparoscopically and allows adjustment of the level of gastric restriction. METHODS: A prospective study of 709 severely obese patients was conducted over a 6-year period at a university-based multidisciplinary referral center. After extensive preoperative evaluation, patients with a body mass index > 35 were treated by Lap-Band placement. Close follow-up with progressive adjustment of gastric restriction continued permanently. Medical co-morbidities were monitored as part of comprehensive prospective data collection. RESULTS: There have been no deaths perioperatively or during follow-up. Significant perioperative adverse events occurred in 1.2% only. Reoperation has been needed for prolapse (slippage) in 12.5%, erosion of the band into the stomach in 2.8% and for tubing breaks in 3.6%. A steady progression of weight loss has occurred through the duration of the study with 52 +/- 19% EWL at 24 months (n = 333), 53 +/- 22% EWL at 36 months (n = 264), 52 +/- 24% EWL at 48 months (n = 108), 54 +/- 24% EWL at 60 months (n = 30), and 57 +/- 15% EWL at 72 months (n = 10). Major improvements have occurred in diabetes, asthma, gastroesophageal reflux, dyslipidemia, sleep apnea and depression. Quality of life as measured by Rand SF-36 shows highly significant improvement. CONCLUSIONS: Placement of the Lap-Band system provides safe and effective control of severe obesity. The effect on weight loss is durable and is associated with major improvement in health and quality of life. It has the potential to provide a broadly acceptable option for this common and serious disease.
INTRODUCTION: Laparoscopic adjustable gastric banding was first introduced in the early 1990s as a potentially safe, controllable, and reversible method for achieving significant weight loss in the severely obese. The Bioenterics Lap-Band system (Inamed Health, Santa Barbara, California) is the device most commonly used. After 10 years of experience in treating more than 100,000 patients with the Lap-Band, it is timely for us to review the outcomes. METHODS: Data for the review are derived from the experience of our unit in the treatment of 1250 patients to date, from an independent systematic review of the published literature up to September 2001, and from major studies published after the date of closure of the systematic review. RESULTS: Lap-Band placement has proved to be a very safe procedure with a mortality rate in the published reports of 1 in 2000, only 10% of the published mortality rate of gastric bypass. The early complication rate has been very low, but late complications of prolapse or erosions have been more frequent, particularly during the early experience. Weight is lost during the first 2 to 3 years after surgery. The systematic review reports 56% excess weight loss (EWL) at 5 years (three reports). In comparison, Roux-en-Y gastric bypass (RYGB) is reported to have achieved 59% EWL at 5 years (four reports). Major improvements in comorbid conditions have been reported in association with weight loss after Lap-Band placement. Most importantly, type 2 diabetes is usually cured, and insulin resistance and reduced pancreatic beta-cell function are reversed. Gastroesophageal reflux, obstructive sleep apnea, and depression are other diseases in which marked improvement is noted. Quality-of-life scores return to normal values. CONCLUSIONS: Lap-Band placement is proving to be safe and effective. In view of the attributes of adjustability, safe laparoscopic placement, and reversibility, it should be considered the optimal initial approach for the control of obesity and its comorbid conditions.
BACKGROUND: Gallstones are more common in the obese population and may be formed during rapid weight loss. A rational approach to the management of the gallbladder should be incorporated into bariatric surgical practice. It has been recommended that patients undergoing Roux-en-Y gastric bypass have routine cholecystectomy regardless of gallstone status. We analyzed the outcomes of a noninterventionist policy on 1000 patients undergoing laparoscopic adjustable gastric banding.

HYPOTHESIS: Patients scheduled for adjustable gastric banding should undergo investigation for and treatment of gallbladder disease regardless of symptoms. METHODS: Patients were screened preoperatively for symptoms of gallstones. Ultrasound examination was performed only in those with symptoms and, if stones were present, cholecystectomy was performed with gastric banding. The remaining patients were followed up clinically and outcomes were noted. RESULTS: A total of 1000 patients were followed up for 12 to 96 months, a total of approximately 3500 patient-years. Cholecystectomy was performed in 181 patients before and 10 at gastric banding surgery. Of the 809 patients at risk, 55 (6.8%) presented with symptomatic disease during follow-up and proceeded to undergo elective cholecystectomy without complications from the disease or the treatment.

CONCLUSIONS: The incidence of cholecystectomy after gastric banding surgery was not different from the expected rate for a nonsurgical obese population. In contrast, after Roux-en-Y gastric bypass, a median of 40% of patients form stones in the postoperative period, and prophylactic cholecystectomy may be justified. Our data indicate that a noninterventionist approach to the gallbladder is appropriate for patients undergoing adjustable gastric banding surgery.
BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) is a safe and effective method for the treatment of obesity. The most common problem after LAGB has been the occurrence of prolapse (slippage) of the stomach through the band. It has been proposed that the pars flaccida (PF) pathway (dissection from the base of the right crus, along the left crus to the angle of His) is less likely to be associated with prolapse than the traditional perigastric (PG) pathway (dissection between the lesser curvature of stomach and lesser omentum, across the apex of the lesser sac, to the angle of His). We have tested this hypothesis using a randomized controlled trial format. METHODS: We have performed a randomized controlled trial to compare the outcomes after LAGB using PF and PG pathways. 202 patients (mean age 40 years, mean weight 123 kg, mean BMI 45) were randomly allocated to the PF or PG pathway and followed for 2 years. RESULTS: At 24 months, there have been 16 revisional procedures for prolapse, 4 in the PF group (all anterior prolapse) and 15 in the PG group (12 posterior and 3 anterior). This difference is significant (P<0.001). The mean % excess weight lost was 53% for the PF group and 46% for the PG group. There was equally significant improvements in the metabolic syndrome in both groups (59% preoperatively and 19% at 2 years). All 8 paired domain scores of the SF-36 measures of quality of life were improved significantly in both group (P<0.001). CONCLUSIONS: The PF pathway is as effective as the PG pathway in generating substantial weight loss, improved health and improved quality of life and is significantly less likely to be associated with prolapse (slippage). It is recommended as the primary dissection pathway.
Obesity is shaping up to be the major health care problem and one of the most frequent causes of preventable death in Western countries in the 21st century. Bariatric surgery is the only current treatment that has been shown to achieve major and durable weight loss. Major weight loss in the severely obese leads to total or partial control of a wide range of common and serious diseases, such as diabetes, heart disease and hypertension. Laparoscopic adjustable gastric banding is the most common type of obesity surgery performed in Australia. It is effective, relatively safe and minimally invasive. The blocks to broader application of bariatric surgery should be identified and resolved.
BACKGROUND: Obesity is a major, growing health problem. Observational studies suggest that bariatric surgery is more effective than nonsurgical therapy, but no randomized, controlled trials have confirmed this. OBJECTIVE: To ascertain whether surgical therapy for obesity achieves better weight loss, health, and quality of life than nonsurgical therapy. DESIGN: Randomized, controlled trial. SETTING: University departments of medicine and surgery and an affiliated private hospital. PATIENTS: 80 adults with mild to moderate obesity (body mass index, 30 kg/m² to 35 kg/m²) from the general community. Interventions: Patients were assigned to a program of very-low-calorie diets, pharmacotherapy, and lifestyle change for 24 months (nonsurgical group) or to placement of a laparoscopic adjustable gastric band (LAP-BAND System, INAMED Health, Santa Barbara, California) (surgical group). MEASUREMENTS: Outcome measures were weight change, presence of the metabolic syndrome, and change in quality of life at 2 years. RESULTS: At 2 years, the surgical group had greater weight loss, with a mean of 21.6% (95% CI, 19.3% to 23.9%) of initial weight lost and 87.2% (CI, 77.7% to 96.6%) of excess weight lost, while the nonsurgical group had a loss of 5.5% (CI, 3.2% to 7.9%) of initial weight and 21.8% (CI, 11.9% to 31.6%) of excess weight (P < 0.001). The metabolic syndrome was initially present in 15 (38%) patients in each group and was present in 8 (24%) nonsurgical patients and 1 (3%) surgical patient at the completion of the study (P < 0.002). Quality of life improved statistically significantly more in the surgical group (8 of 8 subscores of Short Form-36) than in the nonsurgical group (3 of 8 subscores). LIMITATIONS: The study included mildly and moderately obese participants, was not powered for comparison of adverse events, and examined outcomes only for 24 months. CONCLUSIONS: Surgical treatment using laparoscopic adjustable gastric banding was statistically significantly more effective than nonsurgical therapy in reducing weight, resolving the metabolic syndrome, and improving quality of life during a 24-month treatment program.
BACKGROUND: Although bariatric surgery is known to be effective in the short term, the durability of that effect has not been convincingly demonstrated over the medium term (> 3 years) and the long term (> 10 years). The authors studied the durability of weight loss after bariatric surgery based on a systematic review of the published literature. METHODS: All reports published up to September, 2005 were included if they were full papers in refereed journals published in English, of outcomes after Roux-en-Y gastric bypass (RYGBP), and its hybrid procedures of banded bypass (Banded RYGBP) and longlimb bypass (LL-RYGBP), biliopancreatic diversion with or without duodenal switch (BPD+/-DS) or laparoscopic adjustable gastric banding (LAGB). All reports that had at least 100 patients at commencement, and provided > or = 3 years of follow-up data were included. RESULTS: From a total of 1,703 reports extracted, 43 reports fulfilled the entry criteria (18 RYGBP; 18 LAGB; 7 BPD). Pooled data from all the bariatric operations showed effective and durable weight loss to 10 years. Mean %EWL for standard RYGBP was higher than for LAGB at years 1 and 2 (67 vs 42; 67 vs 53) but not different at 3, 4, 5, 6 or 7 years (62 vs 55; 58 vs 55; 58 vs 55; 53 vs 50; and 55 vs 51). There was 59 %EWL for LAGB at 8 years, and 52 %EWL for RYGBP at 10 years. Both the BPD+/-DS and the Banded RYGBP appeared to show better weight loss than standard RYGBP and LAGB, but with statistically significant differences present at year 5 alone. The LL-RYGBP was not associated with improved %EWL. Important limitations include lack of data on loss to follow-up, failure to identify numbers of patients measured at each data point and lack of data beyond 10 years. CONCLUSIONS: All current bariatric operations lead to major weight loss in the medium term. BPD and Banded RYGBP appear to be more effective than both RYGBP and LAGB which are equal in the medium term.
Recent advances in laparoscopy have renewed the interest in gastric banding techniques for the control of severe obesity. This method entails encircling the upper part of the stomach using bands made of synthetic materials, creating a small upper pouch that empties into the lower stomach through a narrow, non-stretchable stoma. The reduced capacity of the pouch and the restriction caused by the band diminish caloric intake, depending on important technical details, thus producing weight loss comparable to vertical gastroplasties, without the possibility of staple-line disruption and lesser incidence of infectious complications. However, distension of the pouch, slippage of the band and entrapment of the foreign material by the stomach have been described. To reduce the likelihood of these occurrences, reviewing the literature of the past 20 years is important to surgeons new in the bariatric field. Understanding the development of this procedure helps in avoiding mistakes made during the evolutionary process. The simplicity and non-invasiveness of the technique, low morbidity, ease of revision, and especially its complete reversibility, make gastric banding a first-line choice in bariatric surgery. However, as in other pure restrictive methods, and perhaps more important than surgical refinements, patient compliance with the behavioural changes imposed by the procedure is critical for a successful outcome.
Obesity has become a serious public health problem in Mexico and at present time and the best treatment for morbid obesity is surgery. Recently, laparoscopic techniques have become available for treatment of this disease. Surgery is indicated in patients with body mass index (BMI) >35 kg/m², and with comorbidity. Restrictive procedures such as adjustable gastric banding and vertical banded gastroplasty have less incidence of postoperative complications; however efficacy in terms of weight loss is not as good as in malabsorptive or mixed procedures. Patients who undergo these malabsorptive or mixed procedures (gastric bypass, biliopancreatic diversion) are at higher risk for postoperative complication. To date, gastric bypass is considered the care standard for treatment of morbid obesity; it confers an approximately 70% of body-weight-loss excess, with an acceptable rate of complications.

911. Pachinger T., Schmoeller F.,
Psychosocial Outcome of LASGB - Operations in Adolescents,
(LAP-BAND® System Congress Presentation Abstract)

912. Padwal R,
Laparoscopic gastric band surgery was more effective than an intensive nonsurgical intervention for weight loss in mild-to-moderate obesity,
(LAP-BAND® System Article)

No abstract available
913. Paganelli M., Giacomelli M., Librenti M., Pontioli A., Ferla G.,
Thirty Months Experience with Laparoscopic Adjustable Gastric Banding,
*Obesity Surgery, 10, 2000, 269-271.*
(LAP-BAND® System Article)

INTRODUCTION: Since June 1996 we performed laparoscopic adjustable silicone gastric banding (LASGB), because of low invasivity, absence of malabsorption, reversibility, and postoperative regulation. MATERIALS AND METHODS: Criteria included body mass index (BMI) >40 or >35 with serious obesity-related conditions. 154 patients underwent LASGB. BMI ranged from 35 to 65.7 (mean 43.7+/-6.2). RESULTS: The laparoscopic procedure was successfully completed in 150 patients (97.4%). One patient was converted to the laparotomic procedure because of hepatomegaly; 4 patients had to be converted for gastric laceration during the laparoscopic approach. In one of these patients, the band was removed 7 days later for sepsis, followed by an uneventful postoperative course. The mean length of postoperative hospitalization was 2.3+/-0.9 days. Per cent of excess weight loss was 42.5+/-22.4 after 1 year. CONCLUSIONS: LASGB was feasible and effective.

914. Paganini A., Guerrieri M., Feliciotti F., Lezoche E.,
Laparoscopic Adjustable Silicone Gastric Banding (LASGB) for the Treatment of Morbid Obesity,
*Surgical Technology International V, 1996, 147-150.*
(LAP-BAND® System Article)

No abstract available

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Three Years Experience with Laparoscopic Adjustable Gastric Banding,
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(LAP-BAND® System Congress Presentation Abstract)

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A Three Years Experience with Laparoscopic Adjustable Gastric Banding,
*E.A.E.S., 1999, 46.*
(LAP-BAND® System Congress Presentation Abstract)

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Laparoscopic Adjustable Gastric Banding for the Treatment of Morbid Obesity,
*Obesity Surgery, 10, 2000, 325.*
(LAP-BAND® System Congress Presentation Abstract)
918. Panzitta M., Casalnuovo C., Rozas H., de Equileor E.,
Obesity Onset and Results after LAGB; Myth or Reality?
*Obesity Surgery, 12, 2002, 454.*
(LAP-BAND® System Congress Presentation Abstract)

919. Papadia F., Camerini G., Marinari G., Adami G., Murelli F., Marini P., Stabilini C., Carlini F.,
Scopinaro N.,
Adjustable Silicone Gastric Banding (ASGB) For Obesity: Results and Complications in a Ten Year Follow-Up,
*Obesity Surgery, 11, 2001, 177.*
(LAP-BAND® System Congress Presentation Abstract)

920. Papadia F., Camerini G., Marinari G., Adami G., Murelli F., Carlini F., Marini P., Stabilini C.,
Scopinaro N.,
Adjustable Silicone Gastric Banding (ASGB) for Obesity: Results and Complications in a Thirteen Year Follow-Up,
*Asian Journal of Surgery, 26, 1, 2003, 86.*
(LAP-BAND® System Congress Presentation Abstract)

921. Papadia F., Camerini G., Marinari G., Marini P., Murelli F., Carlini F., Stabillni C.,
Scopinaro N.,
Adjustable Silicone Gastric Banding (ASBG) for Obesity: Results and Complications in a Thirteen Year Follow-Up,
*Obesity Surgery, 13, 2003, 571.*
(LAP-BAND® System Congress Presentation Abstract)

922. Papadia F., Murelli F., Carlini F.,
Correspondence, Gastric Banding and Biliopancreatic Diversion in Superobesity,
*Obesity Surgery, 14, 2004, 707.*
(LAP-BAND® System Abstract)

923. Papakonstantinou A., Bolanis J., Anastasiou T., Germanos S., Alepas P., Komninou D.,
Niakas E., Alfaras P., Baratssis S.,
Reoperation on morbidly obese patients after surgical management of their morbid obesity,
(LAP-BAND® System Abstract)

924. Parikh M., Fielding g., Ren C.,
US experience with 760 laparoscopic adjustable gastric bands: intermediate outcomes,
*2005 SAGES Abstract No. S028, 89.*
(LAP-BAND® System Abstract)
BACKGROUND: Bariatric surgery in super-obese patients (BMI >50 kg/m²) can be challenging because of difficulties in exposure of visceral fat, retracting the fatty liver, and strong torque applied to instruments, as well as existing co-morbidities. METHODS: A retrospective review of super-obese patients who underwent laparoscopic adjustable gastric banding (LAGB n=192), Roux-en-Y gastric bypass (RYGBP n=97), and biliopancreatic diversion with/without duodenal switch (BPD n= 43), was performed. 30 day peri-operative morbidity and mortality were evaluated to determine relative safety of the 3 operations. RESULTS: From October 2000 through June 2004, 331 super-obese patients underwent laparoscopic bariatric surgery, with mean BMI 55.3 kg/m². Patients were aged 42 years (13-72), and 75% were female. When categorized by operation (LAGB, RYGBP, BPD), the mean age, BMI and gender were comparable. 6 patients were converted to open (1.8%). LAGB had a 0.5%, RYGBP 2.1% and BPD 7.0% conversion rate (P=0.02, all groups). Median operative time was 60 min for LAGB, 130 min for RYGBP and 255 min for BPD (P<0.001, all groups). Median length of stay was 24 hours for LAGB, 72 hours for RYGBP, and 96 hours for BPD (P <0.001). Mean %EWL for the LAGB was 35.3+/−12.6, 45.8+/−19.4, and 49.5+/−18.6 with follow-up of 87%, 76% and 72% at 1, 2 and 3 years, respectively. Mean %EWL for the RYGBP was 57.7+/−15.4, 54.7+/−21.2, and 56.8+/−21.1 with follow-up of 76%, 33% and 54% at 1, 2 and 3 years, respectively. Mean %EWL for the BPD was 60.6+/−15.9, 69.4+/−13.0 and 77.4+/−11.9 with follow-up of 79%, 43% and 47% at 1, 2 and 3 years, respectively. The difference in %EWL was significant at all time intervals between the LAGB and BPD (P<0.004). However, there was no significant difference in %EWL between LAGB and RYGBP at 2 and 3 years. Overall perioperative morbidity occurred in 27 patients (8.1%). LAGB had 4.7% morbidity rate, RYGBP 11.3%, and BPD 16.3% (P=0.02, all groups). There were no deaths. CONCLUSION: Laparoscopic bariatric surgery is safe in super-obese patients. LAGB, the least invasive procedure, resulted in the lowest operative times, the lowest conversion rate, the shortest hospital stay and the lowest morbidity in this high-risk cohort of patients. Rates of all parameters studied increased with increasing procedural complexity. However, the difference in %EWL between RYGBP and LAGB at 2 and 3 years was not statistically significant.

926. Parikh M., Fielding G., Ren C.,
Prospective, single-institution comparison of laparoscopic adjustable gastric banding vs. laparoscopic roux-en-y gastric bypass,
Surgery for Obesity and Related Diseases 1, 2005, 252.
(LAP-BAND® System Abstract)
BACKGROUND: Laparoscopic adjustable gastric band (LAGB) has consistently been shown to be a safe and effective treatment for morbid obesity, especially in Europe and Australia. Data from the U.S. regarding the LAGB has been insufficient. This study reveals our experience with 749 primary LAGB over a 3-year period in a U.S. university teaching hospital. METHODS: All data was prospectively collected and entered into an electronic registry. Characteristics evaluated for this study include preoperative age, BMI, gender, race, conversion rate, operative time, hospital stay, percent excess weight loss (%EWL) and postoperative complications. Annual esophagrams were performed. RESULTS: From July 2001 through September 2004, 749 patients (531 females, 218 males) underwent LAGB for the treatment of morbid obesity. There were 630 Caucasians, 61 African-Americans, and 49 Latin Americans, with a mean age of 42.3 (range 18, 72 years) and mean BMI of 46.0 +/- 7.0 (range 35, 91.5 kg/m(2)). There was one conversion to open (0.1%). Median operative time and hospital stay were 60 minutes and 23 hours, respectively. The mean %EWL at 1 year, 2 years, and 3 years was 44.4 (+/-17.8), 51.8 (+/-20.9), and 52.0 (+/-19.6), respectively. There were no mortalities. Postoperative complications occurred in 12.8% of patients: 1.5% acute postoperative band obstruction, 0.9% wound infection, 2.9% gastric prolapse (“slip”), 2.0% concentric pouch dilatation (without slip), 0.8% aspiration pneumonia, 2.4% port/tubing problems, 0.3% severe esophageal dilatation/dysmotility (reversible), and 1.5% overall band removal. CONCLUSION: These American results substantiate the data from abroad that LAGB is a safe and effective treatment for morbid obesity.


BACKGROUND: Race may affect outcomes after bariatric surgery. This study compares outcomes in terms of weight loss and comorbidity resolution between African-Americans and whites after laparoscopic adjustable gastric banding (LAGB). METHODS: Data from 959 patients undergoing LAGB between July 2001 and July 2004 were prospectively collected and entered into an electronic registry. Propensity score matching analysis was used to match whites to African-Americans on the basis of age, gender, and preoperative body mass index (BMI). Preoperative comorbidities (diabetes, hypertension, obstructive sleep apnea, hypercholesterolemia, and hypertriglyceridemia) were also compared. Operative time (OR), length of stay (LOS), comorbidity resolution, and percent excess weight loss (%EWL) at 1, 2, and 3 years were analyzed. All data were updated through May 2006.

RESULTS: A total of 65 white LAGB patients were matched to 58 African-American LAGB patients on the basis of age, gender, and preoperative BMI. The preoperative mean age and BMI were 37 +/- 19 years and 47 +/- 7 kg/m(2), respectively. A total of 55% of the white group and 64% of the African-American group had one or more comorbidities (P = NS). Median OR time and LOS were similar in both groups: 50 minutes and 23 hours, respectively. The majority of patients in both groups had major improvement or resolution of one or more comorbidities (61% whites vs 77% African-Americans, P = NS). There was, however, a significant difference in %EWL between whites and African-Americans at each time interval (49% vs 39% at 1 year; 55% vs 44% at 2 years; 52% vs 41% at 3 years; P < .05 for all values.) CONCLUSION: Despite the disparity in weight loss with the LAGB in African-Americans and whites, both patient populations experienced a similar improvement/resolution of obesity-related comorbidities.
BACKGROUND: Many mild-to-moderately obese individuals (body mass index [BMI] 30-35 kg/m(2)) have serious diseases related to their obesity. Nonoperative therapy is ineffective in the long term, yet surgery has never been made widely available to this population. METHODS: Between 1996 and 2004, 93 patients with a BMI of 30-35 kg/m(2) underwent laparoscopic adjustable gastric banding with the LAP-BAND. All patients were referred by their primary physician, entered into a comprehensive bariatric surgery program at one Australian center, and operated on by one surgeon. Data on all patients were collected prospectively and entered into an electronic registry. The study parameters included preoperative age, gender, BMI, presence of co-morbidities, percentage of excess weight loss, and resolution of co-morbidities. RESULTS: The mean age was 44.6 years (range 16-76), mean weight was 98 kg, and the mean BMI was 32.7 kg/m(2) (range 30-34). Of the 93 patients, 42 (45%) had co-morbidities, including asthma, diabetes, hypertension, and sleep apnea. The proportion of patients in follow-up was 79%, 85%, and 89% at 1, 2, and 3 years, respectively. The mean weight was reduced to 71 kg at 1 year, 72 kg at 2 years, and 72 kg at 3 years. The mean BMI was reduced to 27.2 +/- 2.2, 27.3 +/- 3.1, and 27.6 +/- 3.7 kg/m(2), respectively, and the mean percentage of excess weight loss was 57.9% +/- 24.5%, 57.6 +/- 29.3%, and 53.8% +/- 32.8% at 1, 2, and 3 years, respectively. At 3 years, the BMI was 18-24 kg/m(2) in 34%, 25-29 kg/m(2) in 51%, and 30-35 kg/m(2) in 10%. At 3 years, the percentage of excess weight loss was <25% in 10%, 25-50% in 24%, 50-75% in 51%, and >75% in 10%. The co-morbidities improved or completely resolved in most patients. No mortality occurred. CONCLUSION: We are very encouraged by this series of low BMI patients treated with the LAP-BAND. Their weight loss has been good, the complications have been minimal, and the co-morbidities have partially or wholly resolved. With additional study, it is reasonable to expect the weight guidelines for bariatric surgery to be altered to include patients with a BMI of 30-35 kg/m(2).
BACKGROUND: Several surgical treatment options for morbid obesity exist. Currently, there are no studies that objectively compare complication rates after laparoscopic bariatric operations performed at a single institution. We objectively classify and compare complications resulting from laparoscopic adjustable gastric banding (LAGB), Roux-en-Y gastric bypass (RYGB), and biliopancreatic diversion (BPD) with duodenal switch (DS). STUDY DESIGN: A retrospective review of a prospective database of all patients undergoing laparoscopic bariatric operation was performed. Complications were categorized according to severity score using a well-described classification system and compared between procedures. RESULTS: From September 2000 to July 2003, 780 laparoscopic bariatric operations were performed: 480 LAGB, 235 RYGB, and 65 BPD+/–DS. There was one late death. Total complication rates were: 9% for LAGB, 23% for RYGB, and 25% for BPD+/–DS. Complications resulting in organ resection, irreversible deficits, and death (grades III and IV) occurred at rates of 0.2% for LAGB, 2% for RYGB, and 5% for BPD+/–DS. LAGB group had a statistically significant lower overall complication rate, both by incidence and severity, as compared with other groups (p < 0.001). After controlling for differences of admission body mass index, gender, and race, the LAGB group had an almost three and a half times lower likelihood of a complication compared with the RYGB group (odds ratio, 3.4; 95% CI, 2.2-5.3, p < 0.001) and had an over three and a half times lower likelihood of a complication compared with the BPD group (odds ratio, 3.6; 95% CI, 1.8-7.1, p < 0.001). There was no statistically significant difference between complication rates of RYGB and BPD+/–DS. CONCLUSIONS: Bariatric operation complication rates range from 9% to 25%; very few complications are serious. Laparoscopic adjustable gastric banding is the safest operation in terms of complication rate and severity when compared with laparoscopic Roux-en-Y gastric bypass or laparoscopic malabsorptive operations.
Background: The Lap-Band is a gastric restrictive procedure for the treatment of morbid obesity. We review the etiology of obstructive complications that present in the first postoperative 24 h. Methods: Fifty-six Lap-Band procedures were performed by one surgeon between January and September 2002. Results: Six patients presented with obstruction within 24 h of surgery: gastric slippage in three patients, gastric edema in one patient, and esophageal hypomotility in two patients. Conclusions: Placing the band in an esophagogastric position as per Belachew and Weiner reduced our incidence of gastric slippage to none. Endoscopy with placement of a nasogastric feeding tube can relieve obstruction caused by esophageal hypomotility. Gastric edema with no clinical signs of obstruction will resolve with time. Clinicians must be aware of the unique complications that come with the advent of this new procedure.

No abstract available

Learning Curve of the Laparoscopic Adjustable Silicone Gastric Banding Operation (LASGB),
*Obesity Surgery, 9, 1999, 330.*
(LAP-BAND® System Congress Presentation Abstract)
938. Peterli R., Vollme W., Herzog U., Tondelli P.,
Two Mechanical Devices for LASGB: Auto-Retraction of the Liver and Abdominal Wall Suspension,
(LAP-BAND® System Congress Presentation Abstract)

939. Peterli R., Zynamon A., Lang C., Tondelli P.,
Radiological and Endoscopic Investigations in the Evaluation of LASGB Patients,
(LAP-BAND® System Congress Presentation Abstract)

940. Peterli R., Vollmer W., Tondelli P.,
Two Mechanical Devices for LASGB: Auto-Retraction of the Liver And Abdominal Wall Suspension,
*Obesity Surgery*, 10, 2000, 142.
(LAP-BAND® System Congress Presentation Abstract)

941. Peterli R., Frigg A., Tondelli P.,
Individual Learning Curve of the Laparoscopic Adjustable Silicone Gastric Banding Operation (LASGB),
*Obesity Surgery*, 10, 2000, 145.
(LAP-BAND® System Congress Presentation Abstract)

942. Peterli R., Donadini A.,
Re-Operations Following LASGB,
(LAP-BAND® System Congress Presentation Abstract)

943. Peterli R., Tondelli P.,
The Pars Flaccida Technique in LASGB-Operation with New 11 cm LAP-BAND®,
(LAP-BAND® System Congress Presentation Abstract)

944. Peterli R., Anner Y., Tondelli P.,
Patient Characteristics Influencing Weight Loss Following LASGB-Operation,
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Re-operations after laparoscopic adjustable gastric banding operation (LAGB) are band-associated or due to complications of the access-port. Symptoms, diagnostics, operations, and follow-up of patients with re-operations were analyzed. METHODS: Between December 1996 and January 2002, 250 morbidly obese patients were treated with LAGB and prospectively evaluated using a standardized protocol. Since June 2000 the pars flaccida technique was applied, since October 2000 with the new 11-cm Lap-Band. All adjustments of the band were done under radiological control. RESULTS: Of 250 patients, 39 had to be re-operated because of band-associated complications: 27 laparoscopic re-gastric bandings after 12 (3-26) months because of slippage; 6 laparoscopic removals of the band (band intolerance - 4, pain - 1, pouch dilatation - 1); 12 biliopancreatic diversions with duodenal switch (BPD-DS) after 29 (18-43) months due to pouch and/or esophageal motility disorders (9) or insufficient weight loss (3), in 6 patients after having already performed a re-banding for slippage. 9 revisions of the access-port were done after 6 (2-53) months (disconnection - 3, dislocation - 6). The morbidity of the re-operations was 5.3%: 1 hematoma in the abdominal wall and 1 temporary dysphagia after re-banding, 1 pulmonary embolism following BPD-DS. There have been no deaths. In patients with a minimal follow-up of 3 years (n = 92), the yearly re-operation rate was 11-12%. No slippage has occurred with the new 11-cm Lap-Band.

CONCLUSION: Re-operations after LAGB for band-associated complications were frequent but could be performed safely with little morbidity. When the new 11-cm Lap-Band was employed, the high slippage rate dropped.
BACKGROUND: Pouch development is a potentially serious problem following gastric banding, and reoperation is often demanded to maintain long-term function of the lap band. Laparoscopic gastric banding was performed with two different calibrations of the pouch. Within a period of 12 months, postoperative pouch behavior with regard to volume and shape was evaluated retrospectively, as were changes in the distal esophagus. METHODS: The pouches of 14 patients with intraperitoneal band positioning were calibrated at 25 ml. The volumes of 54 patients operated by a suprabursal technique were set at 15 ml. We performed three radiological examinations and calculated the volumes using the ellipsoid formula $d_1 \times d_2 \times d_3 \times \pi/6$. Four morphologically different pouch types have been observed: regular, concentric, eccentric-medial and eccentric-lateral. The phi-angle corresponds to the angle between the spinal column and the gastric band. RESULTS: In the first group, the pouch volume increased from 21.2 ml +/- 21.2 to 87.9 ml +/- 64.6 ($p=0.006$) and the BMI fell from 47.1 kg/m² +/- 8.4 to 38.1 kg/m² +/- 7.0 ($p=0.001$). The pouch volume of the second group increased from 10.4 ml +/- 5.8 to 38.8 ml +/- 29.1 ($p=0.001$), and the BMI reduced from 48.4 kg/m² +/- 6.9 to 39.3 kg/m² +/- 6.7 ($p<0.001$). If the phi-angle is smaller than 4 degrees, the pouch is of the eccentric-medial type. CONCLUSIONS: The transbursal operative technique is responsible for the development of the eccentric-medial pouch. If the anterior sero-muscular fixative sutures tear, an eccentric-lateral pouch results. All pouch types are affected by changes at the pouch-esophageal junction and by pathological developments in the distal and middle oesophagus.
(LAP-BAND® System Article)

PURPOSE: To evaluate the role of imaging for follow-up after treatment of morbid obesity by laparoscopic adjustable gastric banding (LAGB). PATIENTS AND METHODS: Since 1996, more than 1,000 patients underwent gastric banding using 5 different types of devices. Our experience is based on a retrospective study (from September 1996 to September 2002) concerning 663 consecutive patients who underwent LAGB: 114 Lapband system (LB) and 549 Swedish adjustable gastric banding (SAGB). Upper gastrointestinal series were performed within 24-48 hours after surgery in all patients. Radiological examination was also used to detect complications and to adjust gastric band. RESULTS: The five types of gastric band are easily identified on plain films. Early and late complications are illustrated: pouch dilatation, slippage, band migration, rotation of the port, and system disconnection. Radiological criteria for adjustment of gastric band are explained on the basis of barium studies performed before and after any modification of the stoma size. CONCLUSION: In patients treated with LAGB for morbid obesity, radiology plays an important role in evaluating early and late complications.

(LAP-BAND® System Article)

Laparoscopic adjustable gastric banding for the treatment of morbid obesity has gained widespread popularity because of its simplicity both for the surgeon and more so for the patient. On the other hand, with this procedure there are complications such as band slippage, erosion, balloon problems and tubing problems, which have required reoperations for remedy. Herein we describe a case of band erosion into the stomach causing gastric outlet obstruction. Of particular interest are the clinical appearance and the operative management of this complication.

(LAP-BAND® System Abstract)

(LAP-BAND® System Abstract)
BACKGROUND: Certain adipose-produced signals are secreted in proportion to body fat mass and are involved in regulation of the energy metabolism of the whole body. Leptin, IL6 and adiponectin can be considered as adiposity signals. Several Single Nucleotide Polymorphisms (SNPs) in genes encoding for these molecules are known to influence their concentration in situations of stable weight. We hypothesized that polymorphism effects could be better detected in a situation of negative energy balance and that modified concentrations of adiposity signal genes could change the dynamics of weight gain in obese subjects. METHODS: 65 obese patients undergoing gastric banding surgery were genotyped for LEP+19A-->G, LEP-2548G-->C, IL6-174G-->C, APM1-11377C-->G and PM1-11391G-->A common SNPs. BMI and concentrations of leptin, IL6 and adiponectin were measured before surgery and after 1 year. RESULTS: All SNPs except IL6-174G-->C SNP were associated with modifications of the circulating concentrations of signals produced by adipose tissue at baseline. During weight loss, variant genotype carriers of LEP -2548 and +19 SNPs were characterized by a trend towards less decrease in circulating leptin. Weight loss was associated with an increase in IL6 concentration (16.9% +/- 12.2) in the IL6-174 C/C genotype carriers, whereas the C/G or G/G genotypes carriers showed a decrease in IL6 (19.9% +/- 5.2, P=0.001). CONCLUSION: We observed that the SNPs studied could modulate the concentration of adiposity signals not only at baseline but also during weight loss. Such variations may be sensed by the homeostatic feedback system that controls energy balance and may in turn contribute to some disturbances in weight regulation.
955. Polat PP, Scheerder MJ, Oosterbrook RJ, Hesp WF,
Laparoscopic adjustable gastric banding in 179 patients by 1 surgeon: 5 years of follow-up,
(LAP-BAND® System Abstract)

956. Polej M., Golebiowski M., Lisik W., Wierzbicki Z., Domienik J.,
The role of radiological studies in the evaluation of post-operative complications in the course of bariatric surgery of the extreme obese,
(LAP-BAND® System Abstract)

957. Pomerri F., De Marchi F., Barbiero G., Di Maggio A., Zavarella C.,
Radiology for Laparoscopic Adjustable Gastric Banding: A Simplified Follow-Up Examination Method,
(LAP-BAND® System Article)

BACKGROUND: The aim of this study was to identify factors which allow a reliable, standardized and simplified approach for the radiologic follow-up of obese patients who have undergone surgery for laparoscopic adjustable gastric banding (LAGB) placement. METHODS: A study was made of 370 consecutive single-contrast upper gastrointestinal series in 159 consecutive patients (122 women, 31 men; mean age 40.6 years; mean body weight 135.8 kg) who had undergone LAGB for morbid obesity and were symptomatic or had inadequate weight loss. The control group consisted of 38 subjects who had undergone LAGB, had satisfactory weight loss and were asymptomatic at follow-up. RESULTS: Each gastric portion above the band was satisfactorily evaluated by measuring its vertical diameter. The optimal projection for measurement of stoma size was predicted before administration of the contrast agent and was achieved when the band was visualized in profile. The clinical pictures were not always related to stoma size. Surgical complications were gastric herniation (8 patients, twice in 1 patient, 5.7%), malpositioned band (1 patient, 1.6%), port twisting (13 patients, 8.2%), and disconnection or leakage of the device (8 patients, 5.0%). CONCLUSION: Essential criteria for the radiologic evaluation of LAGB are: position of port and tubing; stoma size; and volume of each upper gastric portion.

958. Ponce J., Sanchez R., Rodriguez A.,
Swedish Band vs LAP-BAND: A Comparison Study of 200 Patients with up to 24 Months Follow-Up.
Obesity Surgery, 13, 2003, 199.
(LAP-BAND® System Congress Presentation Abstract)
959. Ponce J., Paynter S., Fromm R., Manahan E., Poarch B.,
Bringing International LAP-BAND® Experience to the U. S. Improves Outcomes:
200 Patients with up to 24 Months Follow-Up,
(LAP-BAND® System Congress Presentation Abstract)

960. Ponce J., Haynes B., Paynter S., Fromm R., Manahan E., Sutterfield C., Lindsey B.,
Resolution of or Improvement in Diabetes and Hypertension after Weight Loss with the
LAP-BAND System,
(LAP-BAND® System Congress Presentation Abstract)

961. Ponce J., Haynes B., Paynter S., Fromm R., Lindsey B., Shafer A., Manahan E., Sutterfield C.,
Effect of LAP-BAND-Induced Weight Loss on Type 2 Diabetes Mellitus and
Hypertension,
(LAP-BAND® System Article)

BACKGROUND: Severe obesity is associated with type 2 diabetes and hypertension. Improvement in
these comorbidities after surgically-induced weight loss has been documented, and laparoscopic
adjustable gastric banding (LAGB) is an effective weight loss operation. METHODS: Of 840 patients
who underwent Lap-Band((R)), data are available in 402 out of 413 patients whose surgery took place
at >/= 1 year ago. Preoperative and follow-up data were studied retrospectively to examine the effect
of Lap-Band((R))-induced weight loss on diabetes and hypertension. RESULTS: Of 413 patients with
at least 1 year postoperative follow-up, 53 (12.8%) were taking medications for type 2 diabetes
preoperatively and 189 (45.7%) were on antihypertensive medications. 66% (n=35) of diabetic patients
were also hypertensive. Resolution of diabetes was observed in 66% at 1-year and 80% at 2-year
follow-up. Hba1c dropped from 7.25% (5.6-11.0, n=53) preoperatively to 5.58% (5.0-6.2, n=15) at 2
years after surgery. Hypertension resolved in 59.8% and 74% at 1 and 2 years, respectively. Percent
excess weight loss (%EWL) was lower for diabetic patients than for our cohort population (39.2% vs
41.2% at 1 year, 46.7% vs 54.2% at 18 months, and 52.6% vs 63.3% at 2 years, respectively). Patients in
whom diabetes was improved but not resolved had lower %EWL than did those whose diabetes
went into remission (27.0% at 1 year and 26.5% at 2 years). Patients with the shortest duration of
diabetes (<5 years) and better weight loss after surgery achieved higher resolution rates.
CONCLUSIONS: Dramatic improvement in - and frequent resolution of - diabetes and hypertension
have been observed as a result of weight loss after Lap-Band((R)) surgery.

962. Ponce J., Dixon J.,
Laparoscopic adjustable gastric banding, 2004 ASBS Consensus Conference,
Surgery for Obesity and Related Diseases, 2005, 310-316.
(LAP-BAND® System Article)

No abstract available
963. Ponce J., Haynes B., Lindsey B., Shafer A., Paynter S., Fromm R.,
Preoperative body mass index alone is not a good predictor of weight loss with the LAP-BAND surgery,
_Surgery for Obesity and Related Diseases_ 1, 2005, 255.
(LAP-BAND® System Abstract)

964. Ponce J., Paynter S., Fromm R.,
Laparoscopic Adjustable Gastric Banding: 1,014 Consecutive Cases,
(LAP-BAND® System Article)

BACKGROUND: The purpose of this study was to examine 1,014 consecutive laparoscopic adjustable
gastric banding (LAGB) procedures with up to 48 months of followup, including evolution and
changes in surgical technique, learning curve issues, weight loss outcomes, and complications.
STUDY DESIGN: Between October 2000 and December 2004, 1,014 consecutive patients (81.8%
women, mean age 42.3 years, mean body mass index 47.7 +/- 8.6 kg/m(2)) underwent LAGB operation
at our center. Perigastric dissection was used in the first 44 patients; pars flaccida technique was used
for the latter 970 patients. Fluoroscopy-guided adjustments were performed and patients received
intensive followup. RESULTS: Excess weight loss at 12, 24, 36, and 48 months was 40.5 +/- 17%, 52.9
 +/- 19.5%, 62 +/- 20.9%, and 64.3 +/- 19%, respectively, with data available in > 85% of patients who
had reached each of the time intervals. Patients with lower preoperative body mass index had higher
excess weight loss initially, but this difference was not apparent at 3 and 4 years’ followup. At 36 and
48 months, respectively, 73.5% and 75% of patients had > 50% excess weight loss. Perigastric
dissection led to 9 of 44 (20.5%) slippages, compared with 14 of 970 (1.4%) with pars flaccida
technique. Other complications included 2 erosions (0.2%), 5 tubing breaks (0.5%), 7 access port
problems (0.7%), and 14 acute stoma obstructions (1.4%). Eight (0.8%) bands were explanted. No
deaths occurred. CONCLUSIONS: LAGB can achieve effective and safe weight loss. Change from
perigastric to pars flaccida technique reduced slippage rate. Preoperative body mass index alone was
not found to be a predictor of effective weight loss in the longterm.
965. Ponce J, Fromm R, Paynter S,
Outcomes after laparoscopic adjustable band repositioning for slippage or pouch dilation,
_Surgery for Obesity and Related Diseases, 2, 2006, 627-631._
(LAP-BAND System Article)

Background: Slippage and pouch dilation are the most common surgical complications after laparoscopic adjustable gastric banding, yet few reports have described the specific outcomes after band repositioning for these complications. The objective of this study was to examine the intermediate outcomes of our patients who underwent band repositioning for slippage or pouch dilation.

Methods: From October 2000 to December 2005, 1275 patients underwent laparoscopic adjustable gastric banding at our center. Of these, we retrospectively reviewed the data of the first 40 consecutive patients (92.5% women, mean age 41.7 years, mean preoperative weight 123.3 kg [range 86.2–180.5], mean body mass index 44.8 kg/m² [range 34.6–66.4]) who presented with anterior slippage (52.5%), posterior slippage (20%), or pouch dilation (27.5%, 7 with associated hiatal hernias) that required band repositioning (95%) or explantation (5%).

Results: The average time between laparoscopic adjustable gastric banding and reoperation was 22.9 months. Before band repositioning, the mean weight was 91.5 kg, mean body mass index was 33.2 kg/m², and mean percentage of excess weight loss was 49.4% (range 1–79.8%). One patient had a recurrent anterior slippage that required a second band repositioning. Two bands were explanted, one for intraoperative gastric perforation and one at the patient’s request. The mean percentage of excess weight loss after band repositioning was 48.1% (range 18.2–77.4%) at an average follow-up of 17.6 months (range 6–36). To date, 38 (95%) of the 40 patients have functioning bands. Co-morbidity resolution was seen in 3 (60%) of 5 patients with diabetes, 13 (65%) of 20 with hypertension, and 8 (72%) of 11 with sleep apnea.

Conclusion: Laparoscopic band repositioning can result in preservation of most of the initial weight loss and co-morbidity resolution.

966. Ponson A., Janssen I.,
Laparoscopic Adjustable Gastric Banding for Morbid Obesity: A Comparison of Two Bands,
_E.A.E.S., 1999, 47._
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Surgery for morbid obesity has increased since the introduction of the adjustable gastric bands. Their advantage is the adjustability of the band, which can be inflated or deflated percutaneously according to weight loss without altering the anatomy of the stomach. We present 5 cases of leakage of the Swedish adjustable gastric band (SAGB) as a result of tearing of the balloon.

METHODS: In our series, 29 patients received an SAGB; the remaining 20 received the LapBand. All but 4 procedures were performed laparoscopically. The adjustable gastric band (AGB) was inflated according to passage seen on gastro-esophagogram. According to weight loss or complaints of passage, the gastroesophagogram was repeated, and the AGB was inflated or deflated. RESULTS: No major complications were observed postoperatively. All but 5 patients showed weight loss and restriction of food intake after filling of the AGB. These 5 patients had all received an SAGB. High-pressure filling with contrast medium showed leakage of the SAGB. After removal the SAGB, 4 showed a tear at the site of fixation of the balloon to the band, and 1 showed a puncture of the balloon. The tears most probably occurred as a result of inadequate fixation while the SAGB was positioned around the stomach. CONCLUSION: To our knowledge, this complication has not been described before. The manufacturer of the SAGB has been notified, and consequently the fixation site has been reinforced.

968. Ponson A., Janssen I.,
No Difference in Weight Loss between Different Adjustable Gastric Bands,
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Surgery for morbid obesity has increased since the introduction of the adjustable gastric bands (AGB), which can be placed laparoscopically. There are two AGB in wide use: the Swedish Adjustable Gastric Band (SAGB, Obtech), and the Lap-Band (Inamed Health). We present the results of a comparative study between the 2 AGB. METHODS: 101 patients with a minimal follow-up of 6 months were included. 49 patients received a Swedish Adjustable Gastric Band (SAGB), and the remaining 52 received the Lap-Band (LB). Postoperative weight loss and complications were compared at set intervals of 3 months in the first postoperative year, and 6 months in the years following. RESULTS: Mean follow-up was 9.9 months for the SAGB and 7.2 months for the LB. All but 5 procedures were performed laparoscopically. Mean operating-time was 102 minutes for the SAGB and 86 minutes for the LB. No significant difference in complications was noted between the 2 AGB. 1 SAGB was repositioned and 2 were removed, compared to 2 repositions and 2 removals of the LB. We excluded 5 patients with leakage of a SAGB due to technical failure. Mean preoperative weight kg/BMI of the SAGB patients was 133/45.3; in the LB patients 138/46.4. Mean weight loss at 6 months was 28 kg with the SAGB and 30 kg with the LB, and mean weight loss at 1 year 36 kg and 38 kg respectively. After 2 years, weight loss was 46 kg and 42 kg respectively. CONCLUSION: There was no significant difference in postoperative weight loss and complications between the SAGB and the LB.
Laparoscopic Adjustable Gastric Banding for the Treatment of Morbid (Grade 3) Obesity and its Metabolic Complications: A Three Year Study, *Journal of Clinical Endocrinology & Metabolism; 87(8) 2002, 3555-3561.* (LAP-BAND® System Article)

Weight loss ameliorates arterial hypertension and glucose metabolism in obese patients, but the dietary approach is unsatisfactory because obesity relapses. Durable reduction of body weight, obtained through major nonreversible surgical procedures, such as jejunal and gastric bypass, allows improvement of glucose metabolism and arterial blood pressure in morbid (grade 3) obesity. Laparoscopic adjustable gastric banding (LAGB) is a minimally invasive and reversible surgical procedure that yields a significant reduction of gastric volume and hunger sensation. In this study, 143 patients with grade 3 obesity [27 men and 116 women; age, 42.9 +/- 0.83 yr; body mass index (BMI), 44.9 +/- 0.53 kg/m²; normal glucose tolerance (NGT; n = 77); impaired glucose tolerance (IGT; n = 47); type 2 diabetes mellitus (T2DM; n = 19)] underwent LAGB and a 3-yr follow-up for clinical (BMI, waist circumference, waist to hip ratio, and arterial blood pressure) and metabolic variables (glycosylated hemoglobin, fasting insulin and glucose, insulin and glucose response to oral glucose tolerance test, homeostasis model assessment index, total and high-density lipoprotein cholesterol, triglycerides, uric acid, and transaminases). At baseline and 1 yr after LAGB, patients underwent computerized tomography and ultrasound evaluation of visceral and sc adipose tissue. One-year metabolic results were compared with 120 obese patients (51 men and 69 women; age, 42.9 +/- 1.11 yr; BMI, 43.6 +/- 0.46 kg/m²; NGT, n = 66; IGT, n = 8; T2DM, n = 46) receiving standard dietary treatment. LAGB induced a significant and persistent weight loss and decrease of blood pressure. Greater metabolic effects were observed in T2DM patients than in NGT and IGT patients, so that at 3 yr glycosylated hemoglobin was no longer different in NGT and T2DM subjects. Clinical and metabolic improvements were proportional to the amount of weight loss. LAGB induced a greater reduction of visceral fat than sc fat. At 1-yr evaluation, weight loss and metabolic improvements were greater in LAGB-treated than diet-treated patients. We conclude that LAGB is an effective treatment of grade 3 obesity in inducing long-lasting reduction of body weight and arterial blood pressure, modifying body fat distribution, and improving glucose and lipid metabolism, especially in T2DM.
OBJECTIVE: Lifestyle modifications and pharmacological interventions can prevent type 2 diabetes in obese subjects with impaired glucose tolerance. The aim of this study was to compare laparoscopic adjustable gastric banding (LAGB) and conventional diet (No-LAGB) in the prevention (primary intervention study; 56 vs. 29 patients) and remission (secondary intervention study; 17 vs. 20 patients) of type 2 diabetes and hypertension in grade 3 obesity in a 4-year study. RESEARCH DESIGN AND METHODS: The subjects (n = 122; age 48.5 +/- 1.05 years; BMI 45.7 +/- 0.67 kg/m2) underwent a diagnostic workup, including psychological and psychiatric assessments, in preparation for the LAGB procedure. Of the 122 subjects, 73 had the surgery (LAGB group). The control group (No-LAGB group) consisted of the 49 subjects who refused the surgery but agreed to be followed up; 6 of these subjects dropped out by the 2nd year of the study, so that the final number of patients was 73 and 43 in the LAGB and No-LAGB groups, respectively. All patients had a yearly visit and oral glucose tolerance test. RESULTS: From baseline to the end of the 4-year follow-up, BMI decreased from 45.9 +/- 0.89 at baseline to 37.7 +/- 0.71 kg/m2 in the LAGB group and remained steady in the No-LAGB group (from 45.2 +/- 1.04 to 46.5 +/- 1.37 kg/m2), with no significant differences between the primary and secondary intervention groups. In the primary intervention study, five of the No-LAGB subjects (17.2%) and none of the LAGB subjects (0.0%; P = 0.0001) progressed to type 2 diabetes; in the secondary intervention study, type 2 diabetes remitted in one No-LAGB patient (4.0%) and seven LAGB patients (45.0%; P = 0.0052). Hypertension occurred in 11 No-LAGB patients (25.6%) and 1 LAGB patient (1.4%; P = 0.0001) and remitted in 1 No-LAGB (2.3%) and 15 LAGB patients (20.5%; P = 0.0001). A study of body mass composition revealed a significant reduction of fat mass and a transitory, but not significant, decrease of fat-free mass in LAGB patients. CONCLUSIONS: In morbid obesity, sustained and long-lasting weight loss obtained through LAGB prevents the occurrence of type 2 diabetes and hypertension and decreases the prevalence of these disorders.

BACKGROUND: Laparoscopic adjustable gastric banding is increasingly being performed in morbidly obese individuals for weight loss. Some patients develop pouch dilatation as a postoperative complication that limits the utility of the procedure. Surgical variables are poor predictors of this complication. 5 patients from a series of 157 who underwent LAGB at a single center developed the condition. METHODS: Psychiatric and surgical case-notes were analyzed retrospectively for the presence of operationally defined psychiatric disorders and compared to 10 controls from the same population. RESULTS: Cases were significantly more likely to have past or current binge eating, emotionally triggered eating with reduced awareness of the link, a history of affective disorder, reduced sexual functioning and successful preoperative weight loss. No difference between groups was observed for compliance with orlistat, childhood sexual abuse, relationships with parents, history of bulimia nervosa, rate of band inflation or preoperative BMI. CONCLUSIONS: Psychological factors may be better predictors of pouch dilatation than biomedical variables. Disordered eating can be an attempt to modulate negative emotions. Pouch dilatation may be a consequence of this eating behavior.


BACKGROUND: Non-compliant patients fail to match their behavior to the clinical prescription. Laparoscopic adjustable gastric banding requires strict compliance with surgical and dietary advice. Failure to attend follow-up appointments and the persistent consumption of calorie-dense liquid foods are associated with poor weight loss and postoperative complications. Prediction of "poor compliers" would enhance candidate selection and enable specific interventions to be targeted. METHODS: 9 poor compliers were identified and compared with 9 fully compliant controls. Case-notes were analyzed retrospectively. RESULTS: Cases were found to graze on foods and eat more in response to negative affects. They were reluctant to undergo psychiatric assessment, viewed the band as responsible for weight loss, and aroused caution in the psychiatric evaluator. Poor compliance was not associated with binge eating, purging, impulsivity or psychiatric illness. CONCLUSIONS: Unrealistic expectations and anxiety are known to predict non-adherence. Constant negative affects may be self-modulated by grazing. The results are explored in the context of Self-efficacy Theory, a socio-cognitive account of illness behavior.
974. Poulose B., Griffin M., Speroff T., Walter W., So S., Moore D., Wright JK, Richards W., Melvin W., Grogan E., Holzman M.,
Optimizing bariatric surgery strategies: a cost effectiveness evaluation of open gastric bypass (OGBP) and laparoscopic adjustable gastric banding (LAGB),
(LAP-BAND® System Abstract)

975. Pretolesi F., Camerini G., Gianetta E., Marinari G., Scopinaro N., Derchi L.,
Intraluminal Penetration of the Band in Patients with Adjustable Silicone Gastric Banding: Radiological Findings,
(LAP-BAND® System Article)

The aim of this study was to analyse radiological findings in patients surgically treated for adjustable silicone gastric banding (ASGB) for morbid obesity complicated by band penetration into the gastric lumen. We reviewed the records of four patients with surgically confirmed penetration of gastric band into the gastric lumen; three had preoperative opaque meal, one only a plain abdominal film. Vomiting was the presenting symptom in two cases, whereas others had new weight gain and loss of early satiety. Two patients had normally closed bands: radiography showed that their position had changed from previous controls and the barium meal had passed out of their lumen. Two patients had an open band. One patient had the band at the duodeno-jejunal junction, and the tube connecting the band to the subcutaneous port presented a winding course suggesting the duodenum. In the other case, both plain film and barium studies failed to demonstrate with certainty the intragastric position of the band. As ASGB is becoming widely used, radiologists need to be familiar with its appearances and its complications. Band penetration into the stomach is a serious complication which needs band removal. Patients with this problem, often with non-specific symptoms and even those who are asymptomatic, are encountered during radiographic examinations requested either for gastric problems or follow-up purposes, and have to be properly diagnosed.

976. Provost DA, Dukkipati N., Kaza S., Watson J.,
Laparoscopic adjustable gastric banding in patients 60 years of age and older,
2005 SAGES Abstract No. 5007, 84.
(LAP-BAND® System Abstract)
Bariatric surgery is the only effective treatment producing sustained weight loss and reduction in comorbidities in the morbidly obese. Laparoscopic adjustable gastric banding (LAGB) has evolved considerably in techniques of insertion and band management since the initial descriptions in the early 1990s. Major advantages of LAGB include lower perioperative morbidity and mortality, adjustability, and reversibility. Although weight loss occurs more slowly than after gastric bypass, end results are comparable.
983. Quebbemann B., Akhondzadeh M., Dallal R.,
    Continuous Intravenous Heparin Infusion Prevents Peri-operative Thromboembolic
    Events in Bariatric Surgery,
    (LAP-BAND® System Article)

Background: The pharmacokinetics of subcutaneous heparin administration in the obese patient are
unpredictable. Peak levels are slowly reached and the effects are not rapidly reversible. Low-dose,
continuous, intravenous heparin is easily reversed, is more efficacious and is cost-effective. Methods:
From November 2000 until July 2005, 822 consecutive patients were administered continuous
intravenous unfractionated heparin at 400 U/hr (9,600 U/day) starting in the preoperative holding
area and maintained until discharge. All clinically significant events were documented. Results: 634
laparoscopic gastric bypass, 10 revisions and 188 Lap-Band procedures were performed. The mean
age was 43+/-11 years (15-74) and mean BMI was 45.2+/-7.1 (30-86). There was only one (0.12%) 
clinically evident thromboembolic event in the entire cohort (after a gastric bypass). Anti-Xa levels
and prothrombin time were followed in a group of 40 patients and were found to be normal in all.
Bleeding that required transfusion occurred in 1.3% of patients. In 41 patients (5%), heparin therapy
was terminated or temporarily held due to need for extensive adhesiolysis or acute drop in
hematocrit, with-or-without other evidence of postoperative bleeding. Average estimated blood loss
during surgery was 36 cc (5-500 cc). One patient was inadvertently administered excessive doses of
heparin due to a pump error without significant sequelae. Conclusions: Continuous low-dose
intravenous heparin therapy is associated with an extremely low incidence of thromboembolic events
and a low risk for perioperative hemorrhage. Intravenous heparin also has the benefits of being
inexpensive and rapidly reversible.

984. Quebbemann B., Engstrom D., Siegfried T., Garner K., Dallal R.,
    Bariatric surgery in patients older than 65 years is safe and effective,
    *Surgery for Obesity and Related Diseases*, 2005, 389-393.
    (LAP-BAND® System Article)

    No abstract available

985. Ram E., Vishne T., Maayan R., Lemer I., Weizman A., Dreznik Z., Konstantin B., Seror D.,
    Pnina V.,
    The relationship between BMI, plasma leptin, insulin and proinsulin before and after
    laparoscopic adjustable gastric banding,
    (LAP-BAND® System Article)

    No abstract available
986. Ramos A., Neto M., Galvao M., Carlo A.,
Adjustable Gastric Band Conversion to Lap Bypass,
(LAP-BAND® System Congress Presentation Abstract)

Two-year comparative results in 300 consecutive cases of three types of adjustable gastric bands implanted after learning curve in single center,
*Surgery for Obesity and Related Diseases* 1, 2005, 242.
(LAP-BAND® System Abstract)

988. Ramos A., Galvao M., Carlo A., Canseco E., Neto M.,
Adjustable gastric band – first 1,000 cases: how to obtain good results and avoid complications,
*Obesity Surgery*, 15, 2005, 738
(LAP-BAND® System Abstract)

989. Ramos AR, Galvao M., Caro A., Canseco E., Lima M., Galvao M.,
Gastric band conversion to simplified lap bypass: a 42-case series,
(LAP-BAND® System Abstract)

One-Step Adjustable Gastric Band Conversion to a Vertical Banded Gastroplasty,
*Obesity Surgery*, 16, 2006, 976.
(LAP-BAND® System Abstract)

991. Rappl Th. Freisinger J., Haas F., Scharnagl E.,
4 Years Follow-Up of Gastric Banding and Body Contouring,
(LAP-BAND® System Congress Presentation Abstract)

992. Rappl T., Freisinger J., Haas F., Schwarzl F., Scharnagl E.,
4 years follow-up of gastric banding and body contouring,
*International Journal of Obesity*, 2004, S185,
(LAP-BAND® System Abstract)

993. Refi C., Rozas H., Casalnuovo C.,
Modifications in Some Metabolic Syndrome Components after LAGB,
*Obesity Surgery*, 13, 2003, 524.
(LAP-BAND® System Congress Presentation Abstract)
Morbid obesity is associated with various disorders and may effectively be treated by restrictive surgery, such as laparoscopic adjustable gastric banding (LAGB). We observed a patient suffering from cardiac arrhythmias following LAGB. These cardiac events were likely evoked by hypokalemia due to persistent vomiting after placement of the band. We describe a case of continuing vomiting following a gastric banding procedure. Causes may include both mechanical, i.e. gastric prolapse, and psychological factors. The present case stresses the need for frequent follow-up for patients after a gastric restrictive operation.
Laparoscopic adjustable gastric banding is the most commonly performed operation for morbid obesity in Europe and Australia and has been shown to result in significant long-term weight loss. The US Food and Drug Administration (FDA)-monitored clinical trial results with the LAP-BAND system (INAMED Health, Santa Barbara, CA) did not reproduce the results of studies performed elsewhere in the world. This article reviews data from the first and second FDA clinical trials as well as data from continuing US clinical experience. Four American surgeons at 4 centers have performed more than 500 LAP-BAND procedures not included in the first 2 FDA clinical trials. Of these patients, 115 have been followed for at least 9 months, and 43 have been followed for at least 12 months. A retrospective analysis of prospective data gathered from these patients is presented. The percent excess weight loss was 35.6% at 9 months and 41.6% at 12 months. The average body mass index decreased from 47.5 to 38.8 in 9 months and from 47.5 to 37.3 in 12 months. There were no deaths related to the insertion of the device. Of 15 complications requiring operative management (13%) in 12 patients, there were 8 port displacements or tubing breaks (7%), 2 elective explantations (2%), 2 cases of gastric prolapse (2%), 1 gastric pouch dilatation (<1%), 1 port abscess (<1%), and 1 hemorrhage (<1%). Clinical experience with the LAP-BAND system in the United States shows the device to be a safe and effective treatment for morbid obesity, with results comparable to the international data. The combination of proper surgical technique and close patient follow-up with frequent band adjustments, performed in a comprehensive bariatric program setting, may make the LAP-BAND system a powerful surgical tool in the treatment of morbid obesity.
Laparoscopic adjustable gastric banding is an effective and safe surgical treatment for morbid obesity. Initial experience with the Lap-Band system (Inamed Health, Santa Barbara, California) in the United States and Australia has demonstrated that surgical technique can affect outcomes in terms of weight loss, quality of life, and complication rates. Placement of the gastric band by means of the perigastric technique is associated with high rates of gastric prolapse, food intolerance, and weight loss failure that frequently lead to band explantation. In the pars flaccida technique, band placement higher on the stomach results in the formation of a smaller pouch and lower rates of gastric prolapse, which may contribute to greater weight loss and improved quality of life. This article describes the technical aspects of the pars flaccida approach in the laparoscopic placement of adjustable gastric bands.

BACKGROUND: In 2001 a new device for surgical weight loss was approved by the Food and Drug Administration (Lap-Band, Inamed Health). We describe initial results of laparoscopic gastric banding for morbid obesity in two American academic centers. METHODS: Prospective data was collected on consecutive morbidly obese patients undergoing laparoscopic adjustable gastric banding, and evaluated retrospectively. RESULTS: Four hundred forty-five consecutive patients underwent Lap-Band from May 2001 through December 2002. The 103 men and 341 women had an average age of 42.1 years (range 17-72 years) and an average body mass index (BMI) of 49.6 kg/m² (range 35.2-92.2 kg/m²). One operation required conversion to laparotomy due to bleeding; the rest were completed laparoscopically. Mean length of stay was 1.1 days (range 1-10 days). There was one death. Additional complications included band slippage in 14 patients (3.1%), gastric obstruction without slip in 12 (2.7%), port migration in 2 (0.4%), tubing disconnections in 3 (0.7%), and port infection in 5 (1.1%). Two bands (0.4%) were removed due to intraabdominal abscess 2 months after placement. There was one band erosion (0.2%) and no clinically significant esophageal dilation. Ninety-nine patients have 1-year follow-up and have lost an average of 44.3% excess body weight. CONCLUSION: Laparoscopic gastric banding has much to offer the morbidly obese. We present data showing weight loss rivaling gastric bypass and acceptably low complications. These results parallel success with this device outside America.
Laparoscopic adjustable gastric banding (LAGB) is a surgical option that involves placing a silicone band circumferentially around the uppermost aspect of the stomach. The band creates a small proximal pouch that empties slowly resulting in early satiety and a decreased appetite. The band is attached to an access port that is secured to the rectus muscle and can be accessed percutaneously in the office with a needle. Injection of saline into the port results in tightening of the band. This is performed on an individual basis according to weight loss and appetite. Band adjustments are required approximately 5-6 times in the first year and 2-3 times in the second year. Weight loss is gradual, averaging 1-2 lb/week during the first 2 years after surgery.

BACKGROUND: No study has surveyed the factors that influence morbidly obese patients' preference for a particular bariatric operation. METHOD: 469 consecutive patients in 2 major bariatric surgery centers in the United States (US, 124) and Australia (AU, 345) were prospectively studied to determine referral pattern and reason for their choice of operation. RESULTS: The predominant operation was laparoscopic adjustable gastric banding (LAGB) in both US (75%) and AU (83%) centers. Gender (70% female), BMI (45 kg/m2) and age (42.5 years) were similar in both cohorts. In Australia, 53% had referral initiated by primary doctors and 25% by another patient, while in the US, 43% by another patient and 27% by the Internet. Safety of the operation (43%) was the highest-rated factor in choosing LAGB. LAGB being "least invasive" was most significant in the US (46%), and "surgical safety" in Australia (45%). In the US, Rouxen-Y gastric bypass was preferred due to "lack of a foreign body" (31%) and "inability to cheat" (28%), while in Australia, "dumping" was the most significant reason (50%). Duodenal switch (BPD/DS) was selected in 11% of patients, primarily because of "durability of the weight loss" (51%). Surprisingly, only 1 patient in the US group selected BPD/DS because the pylorus remains intact. CONCLUSION: Safety and invasiveness had the greatest impact on patient choice for bariatric operation in two different countries. This information may help clinicians better understand their patients' concerns, and their treatment choices.
1006. Ren C, Fielding G, Youn A,
A Prospective Study to Evaluate the Safety and Efficacy of LAP-BAND Adjustable
Gastric Band (LAP-BAND) Operations for Patients with BMI between 30-40 kg/m²:
Preliminary Results,
_Surgery for Obesity and Related Diseases_, 2, 2006, 315.
(LAP-BAND® System Abstract)

Basso N.,
Endoscopic Assessment in Patients Undergone Laparoscopic Gastric Banding,
(LAP-BAND® System Congress Presentation Abstract)

1008. Ritchie J.,
A Comparison of Complication Rates in 151 Cases of Lap-Banding and 174 Cases of the
Swedish Adjustable Gastric Band,
(LAP-BAND® System Congress Presentation Abstract)

1009. Ritchie J,
A Comparison of Erosion and Band Failure Rates between the Swedish and LAP-BANDs,
(LAP-BAND® System Abstract)

1010. Rivas H., Martinez J., Delgado S., Vidal J., Lacy A.,
Current Attitudes in Laparoscopic Bariatric Surgery Among European Surgeons,
(LAP-BAND® System Congress Presentation Abstract)

1011. Rivas H., Cacchione R., Allen JW,
Image of the month. Slippage of stomach through an adjustable gastric LAP-BAND,
(LAP-BAND® System Article)

No abstract available
BACKGROUND: The current attitudes among European bariatric surgeons toward the laparoscopic bariatric operations were examined. METHODS: 150 questionnaires were sent to recognized bariatric surgeons in Europe, and 60% responded. RESULTS: 47% of respondents perform laparoscopic Roux-en-Y gastric bypass (LRYGBP), 81% laparoscopic adjustable gastric banding (LAGB), and 29% laparoscopic biliopancreatic diversion with or without duodenal switch (L-BPD/BPDDS). For BMI <40, 57% of respondents would only perform LAGB, 7% LRYGBP, 2% vertical banded gastroplasty (VBG), 3% L-BPD/BPDDS, and 2% intra-gastric balloon. For BMI 40-50, 43% of respondents prefer LAGB, 11% LRYGBP, 8% VBG, 5% L-BPD/BPDDS, and 33% contemplate several operations. For BMI 50-60, 30% prefer LAGB, 23% LRYGBP, 5% VBG, 16% L-BPD/BPDDS, and 26% tailor each patient’s treatment. For BMI >60, 20% prefer LAGB, 24% LRYGBP, 37% L-BPD/BPDDS, 2% VBG, and 17% consider more than one operation. Although important, BMI and patient eating habits are not significant in choosing an operation for 25% of respondents. Interestingly, 39% of the surgeons offer laparoscopic bariatric surgery to so-called pediatric patients (<18). Of these, 76% favor LAGB, 8% LRYGBP, 8% L-BPD and 4% other procedures. CONCLUSIONS: The overall body of respondents prefers laparoscopic procedures. The responses suggest that at lower BMI there is a higher trend for restrictive operations. However, as BMI increases, combined and malabsorptive operations are preferred. At least one-third of surgeons offer bariatric surgery to patients with age <18 years, and here LAGB is greatly preferred.
Laparoscopic Surgery for Morbid Obesity: 1,001 Consecutive Bariatric Operations
Performed at the Bariatric Institute, Cleveland Clinic Florida,
*Obesity Surgery, 16, 2006, 119-124*
(LAP-BAND® System Article)

BACKGROUND: Morbid obesity is an epidemic in America. This series evaluates the safety and
efficacy in the first 1,001 laparoscopic bariatric operations performed at The Bariatric Institute,
Cleveland Clinic Florida. METHODS: A retrospective review was conducted examining all patients
undergoing a primary bariatric procedure (either laparoscopic gastric bypass or laparoscopic gastric
banding) from July 2000 to December 2003. RESULTS: 2 surgeons performed 1,001 laparoscopic
bariatric operations. Average age was 47 (19-75) years, average BMI was 55.6 (35-97) kg/m2, and
average ASA class was III. Excess weight loss was 51% at 6 months, 73.4% at 1 year for the gastric
bypass group and 54% at 1 year for the laparoscopic banding group. The overall complication rate
was 31.8% (12.4% major and 19.4% minor) in the gastric bypass group and 13% in the laparoscopic
banding group. There was no postoperative mortality. CONCLUSION: Laparoscopic bariatric
surgery is feasible and safe for weight loss. Results obtained have been comparable to those reported
for the open approach for weight loss, with a similar major morbidity rate and an improved mortality
rate.

C., Breen D.,
Technical aspects and complications of laparoscopic banding for morbid obesity – a
radiological perspective,
(LAP-BAND® System Article)

Morbid obesity is a significant clinical problem in the western world. Various surgical restrictive
procedures have been described as an aid to weight reduction when conservative treatments fail.
Adjustable laparoscopic gastric banding (LAPBAND) has been popularized as an effective, safe,
minimally invasive, yet reversible technique for the treatment of morbid obesity. Radiological input
is necessary in the follow-up of these patients and the diagnosis of complications peculiar to this type
of surgery. In this review we will highlight the technical aspects of radiological follow-up and the
lessons learnt over the last 5 years.

1015. Rubenstein R., Ferraro D.,
Esophageal Dilatation Following Bariatric Surgery,
*Obesity Surgery, 11, 2001, 177.*
(LAP-BAND® System Congress Presentation Abstract)
1016. Rubenstein R.,
Laparoscopic Adjustable Gastric Banding at a U.S. Center with Up to 3 Year Follow-Up,
(LAP-BAND® System Article)

BACKGROUND: We present our results from the "B" trial (the 2nd U.S. FDA-approved clinical trial) with the laparoscopic adjustable gastric band (LAGB) or Lap-Band System, regarding weight loss, complications, and effect on co-morbidities with up to 3-year follow-up. METHODS: Between March 1999 and June 2001, 63 morbidly obese patients underwent LAGB following accepted ASBS/SAGES guidelines and protocol requirements. All bands were placed via the classic high peri-gastric dissection above the lesser sac, corresponding to the equator of the calibration-tube balloon. Frequent follow-up by a multidisciplinary program was maintained. RESULTS: All procedures were performed laparoscopically with no conversion to laparotomy. Operative time decreased from a mean of 197 minutes for the first 10 patients to 120 minutes for the last group. Average hospital stay was 1.4 days. Perioperative complications included 1 intraoperative gastric perforation, which was closed and did not prevent band placement, and 5 port problems. Gastric slippage occurred in 9 patients (14.2%), 3 of whom were revised to a gastric bypass and 6 who had the band removed. Three additional bands were removed due to infection (1), band erosion (1) and a cluster of gastric symptoms (1). Percent excess weight loss averaged 27.2 at 6 months (range 1-68), 38.3 at 1 year (range 10-77), 46.6 at 2 years (range 16-89), and 53.6 at 3 years (range 21-94). Before surgery, 46 of 63 patients (73%) suffered from a serious comorbidity. Following LAGB, all categories showed marked improvement. CONCLUSIONS: In this study up to 3 years, LAGB provided a safe and sustainable weight loss. Significant resolution of serious co-morbidities was common. A U.S. bariatric practice achieved results comparable to those in the international literature. The primary requisites to achieve optimal results include careful patient selection, the refined surgical technique, and a comprehensive long-term patient management program.

1017. Rubin M., Benchetrit S., Lustigman R., Spivak H.,
Two Step Technique May Improve Outcome in the Initial Experience with the Adjustable Gastric Band (LAP-BAND®),
*Obesity Surgery*, 10, 2000, 329.
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Laparoscopic placement of an adjustable gastric band is an attractive alternative for patients who can benefit from a restrictive bariatric procedure. Creation of the retrogastric tunnel (RGT) may, however, be a considerable challenge early in the surgeon's learning curve. Recent reports described up to 10% band slippage and occasional gastric perforation associated with RGT. The two-step (TS) technique involves a crural dissection towards the angle of His through a gastrohepatic ligament approach. It facilitates passage of the band's tubing posteriorly with no wide posterior gastric wall dissection. PATIENTS AND METHODS: Prospective data were registered for the 109 patients (92 females, 17 males) who underwent laparoscopic adjustable gastric banding from December 1998 to May 2000. In 11 patients the standard RGT approach was used, and in 98, the TS technique. The two groups were demographically similar. Mean age was 37 years (18-59); mean preoperative weight was 120 kg (90-165). RESULTS: All procedures were completed laparoscopically. The mean operative time was 59 minutes (31-150) and the mean hospital stay 1.2 days (1-5). Complications in the TS group were gastric wall hematoma in one patient, 3 days of intubation postoperatively in one patient, damage to a band demonstrated in a postoperative contrast study in one patient, and a port-site hernia in one patient. There was no band slippage in the TS group. Among the 11 patients undergoing RGT, there was band slippage in three (27%), immediately postoperatively in one and after 3 and 11 months in the other two. In a mean follow-up of 7 months (1-18), similar weight loss was found in both groups. The mean BMI decreased from 44 kg/m² (36-61) preoperatively to 40, 38, 36, 34 kg/m² at 1, 3, 6 and 9 months respectively. 52 patients required band adjustment; of these, 12 required two adjustments. CONCLUSION: Our experience with both the RGT and TS techniques indicates that the latter may offer better results, particularly in the early experience period. It is recommended that in their initial experience with the adjustable band, surgeons should become familiar with this approach.

1019. Rubin M., Spivak H., Benchetrit S.,
Prospective Study of 412 Patients Undergoing Laparoscopic Gastric Banding Using the Two-Step Technique: A Technique to Prevent Post-Operative Slippage,
Obesity Surgery, 12, 2002, 457.
(LAP-BAND® System Congress Presentation Abstract)

1020. Rubin M.,
A Prospective Study Comparing the LAP-BAND®, the Swedish and the Heliogast® Band for Laparoscopic Gastric Banding: Personal Experience,
Obesity Surgery, 12, 2002, 467.
(LAP-BAND® System Congress Presentation Abstract)
1021. Rubin M., Spivak H.,
Prospective Study of 250 Patients Undergoing Laparoscopic Gastric Banding Using the Two-Step Technique;
(LAP-BAND® System Article)

BACKGROUND: The use of LAP-BAND adjustable gastric banding (LAGB) has gained tremendous popularity, but creation of the retrogastric tunnel is a considerable challenge, especially in the surgeon’s early experience, and is associated with up to 10% band slippage and occasional gastric perforation. The two-step technique involves a crural dissection toward the angle of His through a pars flaccida approach. The technique facilitates passage of the band with no extensive posterior gastric wall dissection. METHODS: A prospective study investigated 250 patients (207 women and 43 men) who underwent LAGB from January 1999 to May 2002 using a two-step dissection technique. The mean age of these patients was 37 years (range, 18-58 years). Their mean preoperative weight was 120 kg (range, 90-169 kg), and their mean body mass index was 44 kg/m² (range, 36-68 kg/m²). RESULTS: All the procedures except two were completed laparoscopically, and there were no deaths. The mean operative time was 61 min (range, 35-150 min), and the mean hospital stay was 1.2 days (range, 1-5 days). At 3 years, the mean body mass index had decreased from 44 kg/m² to means of 39.9, 37.3, 34.4, 32.4, and 31.7 kg/m² at 3, 6, 12, 24, and 36 months, respectively. The mean excess weight loss was 42.1% at 1 year, 51.4% at 2 years, and 55.5% at 3 years. There were four band slippages (1.6%), no band erosion, and no major morbidity. CONCLUSIONS: The use of LAGB with the two-step technique is technically simple, avoids intimate posterior gastric wall dissection, and facilitates tight posterior band support. It therefore is associated with only minimal perioperative complications and a low slippage rate.

1022. Rumbaut R.,
Laparoscopic Conversion of Vertical Banded Gastroplasty to Adjustable Gastric Band, Obesity Surgery, 10, 2000, 335.
(LAP-BAND® System Congress Presentation Abstract)

1023. Rumbaut R., Trevino F., Dibildox M.,
Slippage Correction of the Adjustable Gastric Band by the Laparoscopic Approach, Obesity Surgery, 14, 2004, 922.
(LAP-BAND® System Congress Presentation Abstract)

1024. Rumbaut R., Trevino F., Dibildox M., Tamayo G.,
Laparoscopic repair of adjustable gastric band (AGB) prolapse, Surgery for Obesity and Related Diseases 1, 2005, 280.
(LAP-BAND® System Abstract)
1025. Rutledge R,
    Revision of Failed Gastric Banding to Mini-Gastric Bypass,
    *Obesity Surgery*, 16, 2006, 521-523
    (LAP-BAND® System Article)

BACKGROUND: Although laparoscopic adjustable gastric banding (LAGB) has been found to be a generally successful weight loss operation, there are reports of occasional LAGB failure. The results of rescue procedures for these patients are important. The mini-gastric bypass (MGB) is a safe and effective alternative to other bariatric surgical procedures. We report the results of conversion of 3 failed LAGB procedures to MGB. METHODS: In a series of 2,595 patients who underwent MGB, 3 had previously undergone an LAGB that failed to sustain weight loss. RESULTS: Average operative time was 54 minutes in LAGB conversions to MGB (compared to 37.5 minutes in primary MGB), and length of stay was 1 day. There were no complications in the patients converted MGB. The weight loss in converted MGB patients was similar to the weight loss in primary MGB patients, with a mean weight loss at 1 year of 60 kg (79% of excess weight) CONCLUSION: Conversion of failed LAGB to MGB was a safe procedure that added approximately 20 minutes to the short MGB operating time. Patient satisfaction was high, recovery was rapid, and weight loss was very good.

1026. Sakai P., Hondo F., de Almeida Artifon E., Kuga R., Ishioka S.,
    Symptomatic Pneumoperitoneum after Endoscopic Removal of Adjustable Gastric Band,
    (LAP-BAND® System Article)

Endoscopic removal of an adjustable gastric band is a feasible procedure with few complications, according to our series of 8 patients. We report the case of a 56 year-old woman who underwent endoscopic removal of a gastric band which had eroded through the gastric wall; this procedure was performed under general anesthesia, while the surgical group removed the subcutaneous port. The patient developed a large pneumoperitoneum after the procedure, and complained of back, shoulder and epigastric pain. A plain abdominal X-ray confirmed the pneumoperitoneum, and esophagogastric radiography with water-soluble contrast did not show a perforation. The treatment approach was conservative. This experience demonstrates an expected complication of endoscopic removal of an adjustable gastric band, and that the treatment may be conservative. The technique of band removal and the mechanism of pneumoperitoneum are discussed.
Bariatric operations are either restrictive, limiting the amount of food ingested; malabsorptive, limiting the amount of nutrient absorbed; or a combination of both. Bariatric surgery dates back to the 1950s when jejunileal bypass was introduced. Since then, numerous improvements have been made in procedures and techniques. Currently, the two most common bariatric procedures performed are laparoscopic adjustable gastric banding and laparoscopic Roux-en-Y gastric bypass. Both of these operations provide excellent results, with the majority of patients losing more than 50% of their excess weight and with most obesity-related comorbidities such as diabetes and hypertension reversed or prevented. Morbidly obese patients considering such operations have to meet strict criteria and must be evaluated by a multidisciplinary team. They need to commit to long-term dietary changes, behavioral modifications, and medical supervision. The choice of procedure is guided by multiple factors, including the patient’s and the surgeon’s preference.
1032. Sallet J., Arruda P., Ribeiro M., Leal A., Pisani C., Keila K., Sallet P.,
Improved Results with LAGB Depends on Selected Patients? Our Results with 316
Patients in the Last 5 Years,
*Obesity Surgery*, 13, 2003, 574.
(LAP-BAND® System Congress Presentation Abstract)

1033. Sallet J., Pizani C., Leal A., Kamoto K., Sallet P.,
Conversion of the Gastric Band into Gastric Bypass with Videolaparoscopic Access,
(LAP-BAND® System Congress Presentation Abstract)

1034. Sannen I., Himpens J., Leman G.,
Causes of Dissatisfaction in Some Patients after Adjustable Gastric Banding,
(LAP-BAND® System Article)

BACKGROUND: The laparoscopic application of the adjustable gastric band has gained widespread
acceptance as a gastric restrictive procedure. The weight loss been well documented. This paper
evaluates the patients' satisfaction. METHODS: Between April 1995 and July 1999, 82 consecutive
patients underwent the Lap-Band procedure. RESULTS: Follow-up is 100%. The satisfaction index is
high. 80% of all patients are extremely pleased or pleased. 15% of patients are displeased or
extremely displeased. 5% have no opinion. The reason for low satisfaction differ, but 3 groups can be
distinguished: 1) patients who suffered surgical complications; 2) patients who did not benefit from
the procedure; 3) most importantly, patients who suffered psychological complications.
CONCLUSION: Gastric Banding is a safe, standardized and effective operation, with good
acceptance by the patients. More efforts have to be made to improve patient selection and to avoid
surgical complications. Most importantly, more focus is needed on the psychological aspect of the
procedure and its consequences.

1035. Santo B., Micheletto G., Perrini M., Lattuada E., Zappa M., Fioravanti M.,
Our Bariatric Surgery Experience with Adjustable Gastric Banding,
*Obesity Surgery*, 11, 2001, 446.
(LAP-BAND® System Congress Presentation Abstract)

1036. Sarker S., Di Iorio S., Shayani V.,
Superior Weight Loss Following Laparoscopic Adjustable Gastric Banding Using Patient-
Driven, Fluoroscopically Guided Band Adjustments,
*ASBS Presentation*, 2004, 55-56.
(LAP-BAND® System Congress Presentation Abstract)
1037. Sarker S., Herold K., Creech S., Shayani V.,
Early and Late Complications Following Laparoscopic Adjustable Gastric Banding,
The American Surgeon, February 2004, 146-150.
(LAP-BAND® System Article)

There is limited U.S. data on short- and long-term complications of laparoscopic adjustable gastric banding (LAGB) as a treatment option for morbid obesity. Hereafter, we present our experience with the first 154 consecutive LAGBs performed at Loyola University Medical Center. Inpatient and outpatient charts were reviewed retrospectively for all patients undergoing LAGB between November 2001 and February 2003 for perioperative morbidity and mortality and repeat operations. Thirty-seven men (24%) and 117 women (76%) underwent LAGB in a 16-month period. There was one (0.6%) death from postoperative myocardial infarction (MI) and one (0.6%) pulmonary embolism. Six (3.9%) patients required readmission to the hospital for dehydration. During a mean follow-up of 33 weeks (range, 4-69 weeks), 14 (9%) patients required repeat operations. There were five (3.2%) band slippages and one (0.6%) gastric erosion. Three bands were removed laparoscopically. Three slippages were revised laparoscopically. One patient underwent laparoscopic cholecystectomy. Seven patients (4.5%) required port revisions for catheter disconnection (4), leak at port site (2), or flipped port (1). LAGB is a safe operative approach for the management of morbid obesity. The incidence of postoperative complications can be minimal with application of a standardized technique. LAGB should be strongly considered for morbidly obese patients who have failed nonoperative management.
BACKGROUND: Laparoscopic adjustable gastric banding has led to variable weight loss results in the United States. We believe a patient-driven, fluoroscopically guided method of band adjustments results in the most successful weight loss. METHODS: Between November 2001 and October 2003, 248 patients underwent laparoscopic adjustable gastric banding. Patients underwent band adjustments when consuming solid food, not sensing satiety, and not experiencing regular weight loss. Adjustments were done under fluoroscopic guidance. Data were collected at the time of adjustments and through periodic telephone interviews. RESULTS: Weight loss data are available for 141 patients with a minimum of 6-month follow-up. Patients were divided into 3 groups by length of follow-up: 6 to 12 months, 12 to 18 months, and 18 to 23 months. Mean preoperative weight and body mass index for all 141 patients were 144.4 kg (range, 92.3 to 214.1) and 50.9 kg/m² (range, 35.6 to 73.8), respectively. Following a mean of 4.1 (range, 0-10) adjustments, percentage excess weight loss was 35.3% (range, -2.1 to 81.0), 44.4% (range, 13.6 to 98.9), and 52.1% (range, 13.3 to 80.1) for the 6 to 12, 12 to 18, and 18 to 23 month follow-up periods, respectively. CONCLUSIONS: Our data suggest that patient-driven band adjustment results in superior weight loss. Additionally, fluoroscopic guidance may optimize the result of each adjustment and minimize the incidence of adjustment-related complications.
There is limited U.S. data on short- and long-term complications of laparoscopic adjustable gastric banding (LAGB) as a treatment option for morbid obesity. Hereafter, we present our experience with the first 154 consecutive LAGBs performed at Loyola University Medical Center. Inpatient and outpatient charts were reviewed retrospectively for all patients undergoing LAGB between November 2001 and February 2003 for perioperative morbidity and mortality and repeat operations. Thirty-seven men (24%) and 117 women (76%) underwent LAGB in a 16-month period. There was one (0.6%) death from postoperative myocardial infarction (MI) and one (0.6%) pulmonary embolism. Six (3.9%) patients required readmission to the hospital for dehydration. During a mean follow-up of 33 weeks (range, 4-69 weeks), 14 (9%) patients required repeat operations. There were five (3.2%) band slippages and one (0.6%) gastric erosion. Three bands were removed laparoscopically. Three slippages were revised laparoscopically. One patient underwent laparoscopic cholecystectomy. Seven patients (4.5%) required port revisions for catheter disconnection (4), leak at port site (2), or flipped port (1). LAGB is a safe operative approach for the management of morbid obesity. The incidence of postoperative complications can be minimal with application of a standardized technique. LAGB should be strongly considered for morbidly obese patients who have failed nonoperative management.

BACKGROUND: Very few large United States series with long-term data after laparoscopic adjustable gastric banding (LAGB) have been published. Here, we present results of 409 consecutive LAGBs performed at a major United States medical center. METHODS: Charts were retrospectively reviewed for perioperative morbidity, mortality, and repeat operations. Weight loss data were collected during band adjustments. RESULTS: Mean age of patients was 42 years. Mean preoperative weight and body mass index (BMI) were 142.4 kg and 50.6 kg/m², respectively. There was 1 fatal myocardial infarction and 4 nonfatal pulmonary emboli. There were 50 (12%) repeat operations resulting in 16 (4%) bands being removed. Mean excess weight loss was 23.7%, 44.3%, 48.0%, and 53.3% with <1 year, 1 to 2 years, 2 to 3 years, and >3 years of follow-up, respectively. CONCLUSIONS: Three-year follow-up data demonstrated continued weight loss in patients after LAGB. The relative safety and continued adjustability of LAGB make it an appealing option for long-term weight loss.
1041. Sarr M.,
Invited Commentary: The Laparoscopic Adjustable Gastric Band: We Need to Keep an Open Mind – YET STILL,
(LAP-BAND® System Article)
No abstract available

Role of dehydroepiandrosterone sulfate levels on body composition after laparoscopic adjustable gastric banding in pre-menopausal morbidly obese women,
(LAP-BAND® System Article)

In humans, dehydroepiandrosterone (DHEAS) has been postulated to have anabolic and lipolytic properties that could potentially counteract the catabolic effect of cortisol. DHEAS secretion is reduced in morbid obesity, likely due to hyperinsulinemia, and laparoscopic adjustable gastric banding (LASGB), by inducing considerable and rapid weight loss, reduces insulin levels. To investigate the role of decreased insulin levels after LASGB-induced weight loss on DHEAS levels and on body composition changes, we studied 30 pre-menopausal morbidly obese women (BMI ranging 37-62 kg/m²) before, 6, 12 and 24 months after LASGB. Total body water (TBW), fat-free mass (FFM) and fat mass (FM) were measured by bioelectrical impedance analysis; tissue hydration was also assessed by impedance vector analysis. At study ending, the subjects had a total weight loss of 28% of baseline body weight (15% after 6 months). After LASGB, weight loss was mainly due to decreased FM, and TBW, FFM, and body hydration were not significantly reduced. Weight loss was associated with an 82% rise in serum DHEAS already after 6 months while cortisol, cortisol/DHEAS molar ratio, and insulin levels fell by 5.5, 62 and 50%, respectively, after 6, 12 and 24 months (p<0.05).
CONCLUSIONS: LASGB associated with a well balanced low-calorie diet permits a satisfactory 2-yr weight loss, sparing FFM and without body fluid alterations. As the result of a stable weight reduction program weight loss is associated to decrease in cortisol, cortisol/DHEAS molar ratio, and insulin plasma levels with marked rise in DHEAS. Higher cortisol/DHEAS molar ratio values at baseline are also associated to lower weight loss after LASGB, with lower decrease in FM and higher reduction in FFM and body cell mass, in spite of no differences in dietary regimes. Cortisol/DHEAS molar ratio is likely to represent a reliable marker of favourable modifications in body composition.

1043. Schauer P.,
Featured Interview: Interview with the Expert: Philip R. Schauer, M. D.,
(LAP-BAND® System – Other)
Obesity or morbid obesity is common among patients who are seeking surgery for refractory gastroesophageal reflux disease (GERD). Several surgical options for treating GERD in obese patients are available. Fundoplications may be effective, at least in the short-term, but have no effect on weight loss and comorbidity reduction. Silicone-adjustable gastric banding and Roux-en-Y gastric bypass have different antireflux mechanisms, but also have proven efficacy against GERD and result in significant weight loss and comorbidity reduction. Vertical banded gastroplasty is not an effective antireflux procedure, and it may induce GERD in some patients. The malabsorbtion operations have no proven efficacy against GERD. Patients with severe obesity who are seeking surgical treatment for GERD should be considered for silicone adjustable gastric banding or Roux-en-Y gastric bypass because of the added benefit of weight loss and consequent comorbidity reduction.

No abstract available

1046. Schindler K., Prager G., Ballaban T., Luger A., Maier C., Buranyi B., Ludvik B.,
Plasma Ghrelin levels following laparoscopic gastric banding (LAGB) – a six months follow-up study,
International Journal of Obesity, 2004, S185,
(LAP-BAND® System Abstract)

1047. Schmoeller F., Krichbaumer K., Sengstbratl M., Boehmig H.,
Gastric Pathology in Candidates for AGB’S: What are the Consequences?
Obesity Surgery, 9, 1999, 342.
(LAP-BAND® System Congress Presentation Abstract)

1048. Schmoeller F., Boehm G., Krichbaumer K., Sengstbratl M., Fuegger R., Miess F.,
Motility Disorders of the Esophagus Following Adjustable Gastric Banding Operations,
Obesity Surgery, 11, 2001, 419.
(LAP-BAND® System Congress Presentation Abstract)
1049. Schneider B., Sanchez V.,
How to Implant the Laparoscopic Adjustable Gastric Band for Morbid Obesity,
Contemporary Surgery, June 2004, 256-264.
(LAP-BAND® System Article)

No abstract available

1050. Schok M., Geenen R., van Antwerpen T., de Wit P., Brand N., van Ramshorst B.,
Quality of Life after Laparoscopic Adjustable Gastric Banding (LAGB),
(LAP-BAND® System Congress Presentation Abstract)

1051. Schok M., Geenen R., van Antwerpen T., de Wit P., Brand N., van Ramshorst B.,
Physical, Social and Psychological Quality of Life after Laparoscopic Adjustable Gastric
Banding (LAGB),
Obesity Surgery, 10, 2000, 110.
(LAP-BAND® System Congress Presentation Abstract)

1052. Schok M., Geenen R., van Antwerpen T., de Wit P., Brand N., van Ramshorst B.,
Quality of Life after Laparoscopic Adjustable Gastric Banding for Severe Obesity: Post-
Operative and Retrospective Pre-Operative Evaluations,
(LAP-BAND® System Article)

BACKGROUND: The aim of this study was to examine postoperative as well as retrospective
preoperative evaluations of multiple dimensions of quality of life of patients with morbid obesity
after laparoscopic adjustable gastric banding (LAGB). METHODS: 12 to 38 months after LAGB, 74
consecutive patients (64 female, 10 male, mean age 36.6 years, age range 23-56) filled out the RAND-
36 Health Survey questionnaire to evaluate their current postoperative as well as their past
preoperative quality of life. RESULTS: Pre- to 1 year postoperative weight reduction (127.5 to 100.7
kg) and change of BMI (45.2 to 35.6 kg/m2) were highly significant (p<0.001). As compared to age
reference groups, the preoperative quality of life was evaluated very poor (p<0.002), postoperative
psychological and social quality of life were about normal (all p's >0.10), and postoperative physical
functioning (p=0.04), vitality (p=0.01) and general health (p=0.03) were below normal. No differences
were found between postoperative evaluations of patient groups with varying postoperative follow-
down duration, but patients in the second year after surgery evaluated some aspects of their
preoperative quality of life as poorer than patients in the third year after surgery. CONCLUSION:
Postoperative psychosocial quality is at a level that may be expected to motivate patients to
consolidate the surgically established weight reduction, but attention should be paid to the physical
condition. Since the relative gain in quality of life as experienced by patients tends to be evaluated
less with a longer duration of the postoperative interval, the risk of relapse may increase with
passage of time.
1053. Schouten R., van Dielen FMH, Greve JWM,
Results after laparoscopic revision of LAP-BAND complications,
*Obesity Surgery, 15, 2005, 985.*
(LAP-BAND® System Abstract)

1054. Schouten R, van Dielen FMH, Greve JWM,
Re-operation after Laparoscopic Adjustable Gastric Banding Leads to a Further Decrease in BMI and Obesity-related Comorbidities: Results in 33 Patients,
*Obesity Surgery, 16, 2006, 821-828*
(LAP-BAND® System Article)

**BACKGROUND:** Laparoscopic adjustable gastric banding (LAGB) is a safe technique with few direct postoperative complications. However, long-term complications such as slippage and pouch dilatation are a well-known problem and re-operations are necessary in a substantial number of patients. In this study, the results of laparoscopic re-operations after LAGB are evaluated.

**METHODS:** 33 patients had a re-operation because of failed LAGB. 29 patients had major re-operation and 4 patients minor re-operation under local anesthesia. The charts of these patients were retrospectively studied.

**RESULTS:** Mean time between the first band placement and re-operation was 28.1 +/- 17.6 months. The cause of band dysfunction was anterior slippage (n=17), band erosion (n=5), band intolerance (n=3), posterior slippage (n=2) and band leakage (n=2). Symptoms of band dysfunction were vomiting (n=16), pyrosis (n=13), nausea (n=8), retrosternal pain (n=11) and regurgitation (n=5). Laparoscopic refixation of the band was performed in 19 patients: the band was replaced in 4 patients while in 1 patient the band was removed; in 3 patients, the laparoscopic procedure was converted to open surgery; 5 patients underwent conversion to a bypass procedure (biliopancreatic diversion in 3 and gastric bypass in 2). There were no direct postoperative complications except for wound infections (n=2). Postoperative follow-up was 100% with a mean period of 34 +/- 19 months. BMI decreased further from 37.5 +/- 6.4 kg/m(2) before re-operation to 33 +/- 7 kg/m(2). Obesity-related co-morbidity also decreased further or completely dissolved. 3 patients (9%) again developed anterior slippage and a second laparoscopic re-operation was necessary.

**CONCLUSIONS:** A laparoscopic re-operation for band-related complications after LAGB is safe and feasible. With band slippage, a laparoscopic refixation was possible in 89%. Re-operation leads to further decrease in BMI and obesity-related co-morbidities.

1055. Schwartz M., Drew R., Faria F.,
Minnesota Bariatric Database,
*Obesity Surgery, 12, 2002, 504.*
(LAP-BAND® System Congress Presentation Abstract)
1056. Schweitzer M, Steele K, Lidor A, 
Failure of the adjustable gastric band system due to a leak of saline (images), 
_Surgery for Obesity and Related Diseases, 2, 2006, 413._
(LAP-BAND® System Article)

No abstract available

1057. Schweitzer M, Lidor A, Magnuson T, 
Bariatric Surgery, 
_Adv Psychosom Med, Volume 27, 2006, 53-60._
(LAP-BAND® System Article)

Bariatric surgery is currently the only effective long-term treatment of morbid obesity and its related co-morbidities. Gastric bypass, adjustable gastric banding, and duodenal switch with biliopancreatic diversion are the three most common operations performed in the United States to induce sustained weight loss. Patient selection is important since compliance postoperatively leads to a successful outcome in over 80% of patients. Preoperative psychological and behavioral problems may lead to maladaptive eating habits postoperatively that defeat the purpose of the surgery. To date, we do not have a 100% reliable method of profiling patients who will fail to keep weight off for the long term. It is therefore important that patients who have preoperative psychological problems that may lead to failure to lose or keep weight off after surgery are offered postoperative counseling along with group support.

1058. Sebastian J., Liu C., 
The Use of Mesh Impregnated with Bovine Serum Albumin (BSA) and Gluteraldehyde to Secure the Access Port in Patients Undergoing the LAP-BAND Procedure, 
_ASBS Presentation, 2004, 56._
(LAP-BAND® System Congress Presentation Abstract)

1059. Segal A., Szachnowicz S., Oliveira D., Kussunoki D., Libanori H., Larino M., 
Clinical Approaches to Patients with Insufficient Post-Surgical Weight Loss, 
_Obesity Surgery, 12, 2002, 507._
(LAP-BAND® System Congress Presentation Abstract)

1060. Segato G., De Luca M., Busetto L., De Marchi F., Foleto M, Favretti F., Enzi G., 
Laparoscopic LAP-BAND™ 10 Years After, 
_Obesity Surgery, 13, 2003, 576._
(LAP-BAND® System Congress Presentation Abstract)

Postoperative Management of Laparoscopic Gastric Banding, 
_Obesity Surgery, 13, 2003, 576._
(LAP-BAND® System Congress Presentation Abstract)
OBJECTIVE: Morbid obesity is associated with premature death. Adjustable gastric banding may lead to substantial weight loss in patients with morbid obesity. Little is known about the impact of weight loss on survival after adjustable gastric banding. We therefore developed a mathematical model to estimate life expectancy in patients with a body mass index (BMI) > or =40 kg/m(2) undergoing bariatric surgery. RESEARCH METHODS AND PROCEDURES: We developed a nonhomogeneous Markov chain consisting of five states: the absorbing state ("dead") and the four recurrent states BMI > or =40 kg/m(2), BMI 36 to 39 kg/m(2), BMI 32 to 35 kg/m(2), and BMI 25 to 31 kg/m(2). Scenarios of weight loss and age- and sex-dependent risk of death, as well as BMI-dependent excess mortality were extracted from life tables and published literature. All patients entered the model through the state of BMI > or =40 kg/m(2). RESULTS: In men aged either 18 or 65 years at the time of surgery, who moved from the state BMI > or =40 kg/m(2) to the next lower state of BMI 36 to 39 kg/m(2), life expectancy increased by 3 and 0.7 years, respectively. In women aged either 18 or 65 years at the time of surgery, who moved from the state BMI > or =40 kg/m(2) to the next lower state BMI 36 to 39 kg/m(2), life expectancy increased by 4.5 and 2.6 years, respectively. Weight loss to lower BMI strata resulted in further gains of life expectancy in both men and women. DISCUSSION: Within the limitations of the modeling study, adjustable gastric banding in patients with morbid obesity may substantially increase life expectancy.
BACKGROUND/AIMS: Surgical gastric banding procedures induce considerable and rapid weight losses in obese subjects. Nevertheless changes in lean mass and body fluids following these surgical treatments are not well known.

METHODS: We studied 6 obese women aged 38-42 years, before, and 8 and 24 weeks after laparoscopic adjustable silicone gastric banding (LAP-BAND(TM)). Fat-free mass (FFM) and fat mass (FM) were investigated using dual energy X-ray absorptiometry (DEXA), while total body water (TBW) and extracellular water (ECW) were assessed by dilution methods.

RESULTS: The subjects showed a total weight loss of 16% of initial weight; the weight reduction was greater during the first 8 weeks. FFM decrease after 24 weeks was very limited and represented only 14% of the weight loss. The mean FFM changes per week were similar in the two periods of observation (0-8 and 8-24 weeks after LAP-BAND). TBW showed a global reduction of 2.2 +/- 1.8 litres mainly due to a decline in intracellular water (ICW), while ECW remained constant during weight loss. As a consequence, the ECW/ICW ratio increased after LAP-BAND. CONCLUSION: LAP-BAND seems to achieve satisfactory weight losses while sparing FFM and causing only mild body fluid alterations.

Sergio A., Cardoso H., Nogueira C.,
Seven Years Experience with Gastric Banding,
(LAP-BAND® System Congress Presentation Abstract)
Impact of common polymorphisms in candidate genes for insulin resistance and obesity on weight loss of morbidly obese subjects after laparoscopic adjustable gastric banding and hypocaloric diet,
The Journal of Clinical Endocrinology & Metabolism, 90, 9, 2005, 5064-5069.
(LAP-BAND® System Article)

CONTEXT: It is unknown whether genetic factors that play an important role in body weight homeostasis influence the response to laparoscopic adjustable gastric banding (LAGB). OBJECTIVE: We investigated the impact of common polymorphisms in four candidate genes for insulin resistance on weight loss after LAGB. DESIGN: The design was a 6-month follow-up study. Setting: The study setting was hospitalized care. PATIENTS: A total of 167 unrelated morbidly obese subjects were recruited according to the following criteria: age, 18-66 yr inclusive; and body mass index greater than 40 kg/m2 or greater than 35.0 kg/m2 in the presence of comorbidities. Intervention: LAGB was used as an intervention. MAIN OUTCOME MEASURE: Measure of correlation between weight loss and common polymorphisms in candidate genes for insulin resistance and obesity was the main outcome measure. RESULTS: The following single nucleotide polymorphisms were detected by digestion of PCR products with appropriate restriction enzymes: Gly972Arg of the insulin receptor substrate-1 gene, Pro12Ala of the proliferator-activated receptor-gamma gene, C-174G in the promoter of IL-6 gene, and G-866A in the promoter of uncoupling protein 2 gene. Baseline characteristics including body mass index did not differ between the genotypes. At the 6-month follow-up after LAGB, carriers of G-174G IL-6 genotype had lost more weight than G-174C or C-174C genotype (P = 0.037), and carriers of A-866A uncoupling protein 2 genotype had lost more weight as compared with G-866G (P = 0.018) and G-866A (P = 0.035) genotype, respectively. Weight loss was lower in carriers of Gly972Arg insulin receptor substrate-1 genotype than Gly972Gly carriers, but not statistically significant (P = 0.06). No difference between carriers of Pro12Ala and Pro12Pro proliferator-activated receptor-gamma genotype was observed. CONCLUSIONS: These data demonstrate that genetic factors, which play an important role in the regulation of body weight, may account for differences in the therapeutic response to LAGB.
1066. Shah M, Simha V, Garg A,  
Long-Term Impact of Bariatric Surgery on Body Weight, Co-Morbidities, and Nutritional Status: A Review,  
*J Clin Endocrinol Metab.* 2006 Sep 5; [Epub ahead of print]  
(LAP-BAND® System Article)

Context: The number of patients who undergo Roux-en-Y gastric bypass (RYGB) and gastric banding (GB) surgeries has increased dramatically over the past decade yet the long-term impact of these surgeries on body weight, co-morbidities, and nutritional status remain unclear, as do the mechanisms of weight regain. Evidence Acquisition: The articles were found via PubMed searches. To review the impact of bariatric surgery on weight maintenance and co-morbidities, only articles with a postoperative follow-up of ≥ 3 yr were included. The articles on nutritional status had a follow-up of ≥ 12 months. Conclusions: RYGB and GB surgeries lead to substantial weight loss in individuals with morbid obesity. However, significant weight regain occurs over the long-term, and according to the only well designed prospective controlled study, the improvement in comorbidities associated with weight loss mitigates in the long-term upon weight regain. There is some evidence from a retrospective study that RYGB surgery is associated with a modest decrease in long-term mortality. These results remain to be substantiated by well designed long-term randomized and prospective controlled studies. The mechanisms that lead to weight regain need to be further examined and may include increase in energy intake due to enlargement of stoma and adaptive changes in the levels of gut and adipocyte hormones such as ghrelin and leptin which regulate energy intake; decrease in physical activity; changes in energy expenditure; and other factors. In addition to weight regain RYGB surgery is associated with frequent incidence of iron, vitamin B12, folate, calcium, and vitamin D deficiency.

1067. Shapiro K., Patel S., Abdo Z., Ferzli G.,  
Laparoscopic Adjustable Gastric Banding, Is there a learning curve?  
(LAP-BAND® System Article)

Background: To be certified for laparoscopic placement of adjustable gastric banding, surgeons must have advanced laparoscopic experience. Despite previous exposure to other kinds of laparoscopy, there may a learning curve specific to Lap-Band placement. Methods: Sixty consecutive patients were prospectively separated into two groups: the first 30 patients operated on (group 1) and the second 30 patients operated on (group 2). Results: Both groups were similar statistically in regard to gender, age, and body mass index. Operative time for group 1 was 79 +/- 31.1 min. There were 11 (37%) complications in 10 patients. Operative time for group 2 was 59 +/- 19.9 min. There were two complications (7%). All operations were completed laparoscopically. Operative time was significantly lower in group 2 ( t-test; p = 0.004). Complications were also significantly lower (chi-square; p = 0.005). The number of reoperations was also reduced and approached statistical significance (chi-square; p = 0.054). Readmissions, although reduced, were not statistically significant. There were no deaths in either group. Conclusions: Despite a surgeon's history of advanced laparoscopic experience, there is a definite learning curve associated with the laparoscopically placed adjustable gastric band.
BACKGROUND: The role of upper GI series (UGIS) before bariatric surgery is controversial. The aim of this study was to evaluate the diagnostic yield and cost of routine UGIS prior to bariatric surgery.

METHODS: The medical records of consecutive obese patients who underwent UGIS before bariatric surgery between April 2001 and October 2002 were reviewed. UGIS reports were reviewed by 2 experienced gastroenterologists, and the findings were divided into 4 groups based on predetermined criteria: group 0 (normal study), group 1 (abnormal findings that neither changed the surgical approach nor postponed surgery), group 2 (abnormal findings that changed the surgical approach or postponed surgery), and group 3 (results which were an absolute contraindication to surgery). Clinically important findings included lesions in groups 2 and 3. The cost of an upper GI series (154.80 USD) was estimated from the published 2002 New York State Medicare reimbursement schedule. RESULTS: During the 18-month study period, 171 patients were evaluated by UGIS prior to bariatric surgery. One or more lesions were identified in 48.0% of patients, with only 5.3% having clinically important findings. The prevalence of radiologic findings using the classification system above was as follows: group 0 (52.0%), group 1 (42.7%), group 2 (5.3%), and group 3 (0.0%). The most common findings identified were esophageal reflux (21.6%) and hiatal hernias (18.7%). The cost of performing routine UGIS on all patients before bariatric surgery was 2,941.20 USD per clinically important finding detected. CONCLUSIONS: Routine preoperative upper GI series before bariatric surgery had a low diagnostic yield, rarely revealing pathology that changed the surgical approach or postponed surgery.
BACKGROUND: The role of upper endoscopy (EGD) in obese patients prior to bariatric surgery is controversial. The aim of this study was to evaluate the diagnostic yield and cost of routine EGD before bariatric surgery. METHODS: The medical records of consecutive obese patients who underwent EGD prior to bariatric surgery between May 2000 and September 2002 were reviewed. Two experienced endoscopists reviewed all EGD reports, and findings were divided into 4 groups based on predetermined criteria: group 0 (normal study), group 1 (abnormal findings that neither changed the surgical approach nor postponed surgery), group 2 (abnormal findings that changed the surgical approach or postponed surgery), and group 3 (results that were an absolute contraindication to surgery). Clinically important findings included lesions in groups 2 and 3. The cost of EGD (US $430.72) was estimated using the endoscopist fee under Medicare reimbursement. RESULTS: During the 28-month study period, 195 patients were evaluated by EGD prior to bariatric surgery. One or more lesions were identified in 89.7% of patients, with 61.5% having a clinically important finding. The prevalence of endoscopic findings using the classification system above was as follows: group 0 (10.3%), group 1 (28.2%), group 2 (61.5%), and group 3 (0.0%). Overall, the most common lesions identified were hiatal hernia (40.0%), gastritis (28.7%), esophagitis (9.2%), gastric ulcer (3.6%), Barrett’s esophagus (3.1%), and esophageal ulcer (3.1%). The cost of performing routine endoscopy on all patients prior to bariatric surgery was US $699.92 per clinically important lesion detected.

CONCLUSIONS: Routine upper endoscopy before bariatric surgery has a high diagnostic yield and has a low cost per clinically important lesion detected.

Laparoscopic adjustable gastric banding (LAGB) is commonly performed for weight reduction in the morbidly obese population. Morbidly obese patients often suffer from many co-morbid conditions including diabetes. Diabetic patients may suffer from symptomatic or asymptomatic gastric dysmotility resulting in intermittent gastric distention. Following gastric banding, in the early postoperative period, patients may be unable to decompress trapped air in the stomach and may develop severe acute distention with associated risk for catastrophic results. We present the case of a diabetic patient who underwent an uneventful LAGB but returned to the hospital with severe abdominal and back pain. Following the diagnosis of acute gastric distention using an abdominal roentgenogram, the stomach was decompressed using a naso-gastric tube. Following initiation of promotility agents, the patient was successfully discharged home without symptoms. A high index of suspicion, prompt diagnosis and appropriate management can prevent complications of acute gastric distention in this patient population.

1069. Sharaf R., Weinshel H., Bini E., Rosenberg J., Sherman A., Ren C.,
Endoscopy Plays an Important Preoperative Role in Bariatric Surgery,
(LAP-BAND® System Article)

1070. Shayani V., Sarker S.,
Diagnosis and Management of Acute Gastric Distention following Laparoscopic
Adjustable Gastric Banding,
(LAP-BAND® System Article)
OBJECTIVE: The objective of the study was to investigate pregnancy outcome of patients with gestational diabetes mellitus following bariatric surgery. STUDY DESIGN: All births to patients with gestational diabetes mellitus delivered between the years 1988 and 2002 were included in the study. A comparison between patients with and without a history of bariatric surgery was performed. Stratified analyses, using the Mantel-Haenszel technique and a multiple logistic regression model were performed to control for confounders. RESULTS: During the study period, there were 8014 deliveries of women with gestational diabetes mellitus. Twenty-eight were in patients following bariatric surgery. Most patients underwent restrictive (n = 26) and not malabsorptive procedures (n = 2), mainly gastric banding (n = 16). Mean levels of hemoglobin A1c and fasting glucose were comparable between the groups. No significant differences in obstetric characteristics or pregnancy outcomes were noted between the patients following bariatric surgery as compared with the comparison group, except for higher rates of fertility treatments (21.4% versus 5.5%; P < .001). While controlling for nulliparity and maternal age, using a multivariable analysis, a significant association was noted between bariatric surgery and fertility treatments (odds ratios 4.7; 95% confidence interval 1.9 to 11.7; P = .001). Perinatal outcome was comparable between the groups, and no significant differences were noted with regard to complications such as perinatal mortality, congenital malformations, and low Apgar scores at 1 and 5 minutes. CONCLUSION: Previous bariatric surgery in patients with gestational diabetes mellitus is not associated with adverse perinatal outcome.
1073. Shen R., Ren C.,
Removal of Peri-Gastric Fat Prevents Acute Obstruction after LAP-BAND Surgery,
(LAP-BAND® System Article)

BACKGROUND: Acute postoperative gastroesophageal obstruction is a potential complication after laparoscopic adjustable gastric banding (LAGB). Utilizing the pars flaccida technique may increase the incidence due to the incorporation of perigastric fat, particularly in patients with greater visceral obesity. Removal of peri-gastric fat pads may be necessary to avoid postoperative obstruction. We present our experience of 267 LAGB operations using the LapBand System and the incidence of postoperative obstruction, before and after incorporating routine removal of peri-gastric fat pads.

METHODS: A retrospective review of a prospective database of 267 consecutive Lap-Band placements between July 2001 and November 2002 was conducted. RESULTS: All operations were completed laparoscopically using the pars flaccida technique, and all patients underwent esophagogram the morning after surgery. From July 2001 to May 2002, 143 Lap-Band placements were performed, with 11 patients (8%) having abnormal postoperative esophagograms. There were 43 males/100 females with mean BMI 48.3 (range 35 to 78.9). Complete esophageal obstruction was seen in 5 of these patients, all of whom underwent laparoscopic revision. Significantly delayed emptying was seen in the 6 remaining patients, who were managed conservatively with intravenous fluids from 2-7 days. In these 11 patients, there were 6 males/5 females with mean BMI 47.1 (range 37.3-57.9). Subsequently, removal of peri-gastric fat pads was routinely performed during Lap-Band placement. From June 2002 to November 2002, there were 43 males/81 females with mean BMI 48 (range 35-79); these 124 Lap-Band placements were performed with no abnormal postoperative esophagograms. CONCLUSION: Routine removal of peri-gastric fat pads when using the pars flaccida technique for Lap Band surgery appears to prevent postoperative esophageal obstruction.
BACKGROUND: Postoperative follow-up after bariatric surgery is important. Because of the need for adjustments, follow-up after gastric banding may have a greater impact on weight loss than after Roux-en-Y gastric bypass. We reviewed all patients at 1 year after these two operations. METHODS: During the first year after surgery, laparoscopic adjustable gastric banding (LAGB) patients were followed every 4 weeks and Roux-en-Y gastric bypass (RYGBP) patients were followed at 3 weeks postoperatively and then every 3 months. The number of follow-up visits for each patient was calculated, and 50% compliance for follow-up and weight loss was compared. RESULTS: Between October 2000 and September 2002, 216 LAGB and 139 RYGBP operations were performed. Of these patients, 186 LAGB patients and 115 RYGBP patients were available for 1-year follow-up. Age and BMI were similar for each group. Overall excess weight loss (EWL) after LAGB was 44.5%. 130 (70%) returned 6 or less times in the first year and achieved 42% EWL. 56 patients (30%) returned more than 6 times and had 50% EWL (P=0.005). Overall %EWL after RYGBP was 66.1%. 53 patients (46%) returned 3 or less times in the first year, achieving 66.1% EWL. 62 patients (54%) returned more than 3 times after surgery and achieved 67.6% EWL (P=NS). CONCLUSION: Patient follow-up plays a significant role in the amount of weight lost after LAGB, but not after RYGBP. Patient motivation and surgeon commitment for long-term follow-up is critical for successful weight loss after LAGB surgery.
BACKGROUND: The most prevalent long-term complications in patients who undergo laparoscopic adjustable gastric band (LAGB) surgery are pouch dilatation and gastric prolapse (slippage). Gastric prolapse can be divided into the anterior and posterior variety. Posterior prolapse is thought to be specific to the perigastric approach due to a lack of posterior band fixation. We report a series of 3 patients out of 1,104 who underwent LAGB placement using the pars flaccida approach and developed a posterior prolapse. METHODS: Between March 2002 and December 2005, 1,104 patients underwent LAGB insertion using the pars flaccida approach at our institution. 3 patients (0.27%) developed posterior prolapse requiring reoperation. RESULTS: All 3 patients presented with similar complaints, including solid food intolerance, gastroesophageal reflux and/or regurgitation. Although identical to those reported with anterior prolapse, diagnosis was definitively made with barium video esophagogram. All patients were treated with reoperation, but band replacement was impossible in 2 of the 3 cases secondary to extensive adhesion formation. CONCLUSION: The finding of 3 patients who experienced posterior prolapse, despite using the pars flaccida approach, highlights the fact that this complication although diminished, has not been eliminated as previously thought. We describe the presentation, work-up, and management of this rare but important entity in the modern era of LAGB.

A wide range of operations are used today for morbid obesity. Adjustable gastric banding (AGB) is one of the most widespread. Numerous complications after AGB are known, namely gastric perforation, band slippage, penetration of the band into stomach, port disconnection, port-site infection, etc. The authors present a case of small bowel obstruction caused by the intra-abdominal silicone tube of the gastric band in a woman with AGB performed 9 years before, with a very good result and considerable weight loss. She was operated as an emergency, and part of the terminal ileum was found incarcerated around and between the silicone tube and the anterior abdominal wall. Bowel resection for intestinal necrosis, with terminal ileostomy, was performed, followed 1 month later by an end-to-end ileo-ileal anastomosis. The patient recovered without sequelae.

Reported Incidence of Various Post Operative Experiences Associated with the LRYGB, LAGB, AND LBPD/DS,
 (LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Morbid obesity is a rising problem in adolescents in the industrial nations. Up to 25% of children have a body mass index (BMI) higher than the 85th age- and sex-adjusted percentile. Obesity in youth is associated with increased risk for morbidity and mortality in adulthood. In addition, these patients suffer from psychological problems and decreased quality of life. Bariatric procedures have shown effective long-term results in adults, but they are still discussed controversially in adolescent patients. METHODS: Between 1998 and 2004, 50 adolescent patients with a mean age of 17.1+/-2.2 years (range 9-19 years) underwent laparoscopic adjustable gastric banding (LAGB) in Austria. The psychological changes were analyzed by using Moorehead-Ardelt/BAROS questionnaire. RESULTS: The mean BMI decreased from 45.2+/-7.6 kg/m2 at time of surgery to 32.6+/-6.8 kg/m2 after a mean follow-up of 34.7+/-17.5 months. The mean excess weight loss was 61.4+/-35.5%. Most of the adolescents showed remarkable improvements in their quality of life. The outcome was regarded as "excellent or very good" in 32 patients, "good" in 12 patients and "fair" in 5 patients. Only one patient noticed no alterations after surgery. Two-thirds of the preoperative co-morbidities resolved, and one-third improved during follow-up. Except for one port dislocation, no peri- or postoperative complications arose. CONCLUSION: LAGB is an effective and attractive treatment option in very carefully selected obese adolescents, because of its adjustability and the preservation of the gastrointestinal passage. The majority of patients showed a remarkable improvement in their quality of life.
Intragastric prosthesis (Lap-Band, BioEnterics Co., Carpinteria, CA, U.S.A.) migration is one of the major long-term complications of laparoscopic adjustable silicone gastric banding. The causes, clinical signs, timing, and overall incidence of band entrapment have not been prospectively investigated in a large series. The purpose of this study was to assess prospectively the incidence of Lap-Band intragastric migration and to establish the safety and effectiveness of minimally invasive band removal. Between January 1996 and June 2000, 148 consecutive patients enrolled in a multidisciplinary bariatric program underwent laparoscopic adjustable silicone gastric banding. In the follow-up treatment, gastrointestinal endoscopy was performed routinely. One hundred twenty-three patients with a minimum follow-up period of 12 months were entered into the study group. Eleven (9.2%) patients had long-term major complications. Intragastric band migration was observed in nine (7.5%) patients. The diagnosis was established by routine endoscopy between 10 and 41 months after surgery. Five erosions occurred in the first 30 cases (learning curve period). In six patients, the band was removed by an intragastric endoscopic-assisted approach avoiding laparotomy. The remaining three patients are under endoscopic surveillance. The results of this study show that routine upper gastrointestinal endoscopy can discover asymptomatic band migrations early. Band erosion did not require emergency treatment and can be removed safely by a minimally invasive approach.

1082. Silecchia G., Greco F., Perrotta N., Pecchia A., Rizzello M., Boru C., Casella G., Bacci V., Basso N.,
Laparoscopic Adjustable Gastric Banding (LAGB) in Patients Over 55 Years,
(LAP-BAND® System Congress Presentation Abstract)
HYPOTHESIS: Complications after laparoscopic adjustable gastric banding as treatment for morbid obesity may require a major reintervention. A minimally invasive approach represents an attractive management alternative for such complications. DESIGN: Prospective case series. SETTING: Major academic medical and surgical center. PATIENTS: From January 1996 to July 2003, 47 patients who had undergone laparoscopic adjustable gastric banding were operated on again. Considering the causes for reoperation, the patients were divided into 4 groups: group A had major complications (n = 26); group B, minor complications (n= 11); group C, psychological problems (n=6); and group D, insufficient weight loss (n=4). INTERVENTIONS: Forty-three procedures, 38 using general anesthesia (groups A, C, and D) and 5 using local anesthesia (group B), were performed. MAIN OUTCOME MEASURES: Feasibility, safety, and effectiveness of a minimally invasive approach in the treatment of laparoscopic adjustable gastric banding complications. RESULTS: In group A, 9 of 10 patients with irreversible gastric pouch dilatation and 15 of 16 with intragastric band migrations were treated laparoscopically. In group B, 5 ports were substituted and 2 reconnections of the catheter-port system were performed. In group C, 6 laparoscopic band removals were carried out. In group D, 4 laparoscopic revision procedures for insufficient weight loss were performed. The operative mortality was nil. The most frequent cause of reoperation was intragastric migration (37.2%). A minimally invasive approach was adopted in 94.7% of cases. CONCLUSION: Laparoscopy is safe and effective, even as a second operative procedure.
BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) has become the most popular bariatric intervention in Europe. International guidelines recommended age limits for bariatric surgery of 18-60 years. The aim of this study was to evaluate the immediate results in morbidly obese patients >55 years old, treated with LAGB. METHODS: Between January 1996 and January 2004, 350 patients underwent LAGB. 24 (6.8%) were >55 years old (Group A), mean age 58.6+-3.3 years, mean preoperative BMI 42.3+-4.5 kg/m2. A comparative randomized analysis with 24 patients younger than age 55 years was performed (Group B: mean age 41.2+-9.6 years, mean BMI 42.1+-3.6 kg/m2). Baseline clinical features, operative parameters and postoperative results were evaluated. RESULTS: No perioperative complications were recorded. Conversion rate and mortality were nil. Major postoperative complications occurred in 2 patients (8.3%) from Group A (1 intragastric prosthesis migration, 1 pouch dilatation) and 2 patients (8.3%) from Group B (intragastric migrations). Reoperation was needed in 3 cases, and one erosion (Group B) is on the waiting list for removal. Minor complications: 1 port infection in each group required ambulatory port substitution; 1 intraperitoneal portcatheter disconnection (Group B) was successfully treated laparoscopically. Mean follow-up was 31.7 months (Group A) and 33.0 months (Group B). Mean postoperative BMI at 12 and 24 months was 35.9+-4.2 and 33.8+-4.9 for Group A, and 33.8+-4.6 and 33.2+-6.0 for Group B. CONCLUSION: There have been no significant differences in results between the 2 groups. LAGB has been safe and effective in patients >55 years old.


Effectiveness of laparoscopic sleeve gastrectomy (first stage of biliopancreatic diversion
with duodenal switch) on co-morbidities in super-obese high-risk patients,
Obesity Surgery, 16, 2006, 1138-1144
(LAP-BAND® System Article)

BACKGROUND: We evaluated laparoscopic sleeve gastrectomy (LSG) on major co-morbidities
(hypertension, type 2 diabetes / impaired glucose tolerance, obstructive sleep apnea syndrome
(OSAS) and on American Society of Anesthesiologists (ASA) operative risk score in high-risk super-
obese patients undergoing two-stage laparoscopic biliopancreatic diversion with duodenal switch
(LBPD-DS).METHODS: 41 super-obese high-risk patients (mean BMI 57.3+/−6.5 kg/m(2), age 44.6+/−
9.7 years) were entered into a prospective study (BMI >/=60, or BMI >/=50 with at least two severe co-
morbidities, no Prader-Willi syndrome, no conversion, minimum follow-up 12 months). 9 patients
had BMI >/=60. 17 patients (41.4%) had OSAS on C-PAP therapy. In 10 patients, at least one
intragastric balloon had been positioned and 4 had undergone laparoscopic adjustable gastric
banding, all with unsatisfactory results. At surgery, 41.5% were classified ASA 4 and 58.5% as ASA 3
(mean ASA score 3.4+/−0.5). Patients underwent evaluation every 3 months postoperatively and were
restaged at 12 months and/or before the second step.RESULTS: 60% of major co-morbidities were
cured and 24% improved. Average BMI after 6 and 12 months was 44.5+/−8.1 and 40.8+/−8.5
respectively (mean follow-up 22.2+/−7.1 months). After 12 months, 57.8% of the patients were co-
morbidity-free and 31.5% had only one major co-morbid condition. At restaging, 20% of patients
were still classified as ASA score 4 (OSAS on C-PAP therapy). 3 patients showed BMI <30 and were
co-morbidity-free 12 months after LSG.CONCLUSIONS: LSG represents a safe and effective
procedure to achieve marked weight loss as well as significant reduction of major obesity-related co-
morbidities. The procedure reduced the operative risk (ASA score) in super-obese patients
undergoing two-stage LBPD-DS.

1088. Silva AS, Noguaira C., Cardoso H.,
Adjustable gastric banding and super-obesity,
Obesity Surgery, 15, 2005, 982.
(LAP-BAND® System Abstract)

1089. Singhal R, Guy A, Hunt K, Super P,
Early Band Slippage is an Avoidable Complication of Laparoscopic Gastric Banding
Insertion,
Surgery for Obesity and Related Diseases, 2, 2006, 321.
(LAP-BAND® System Abstract)

1090. Skull A., Slater G., Bowden B., Duncombe J., Fielding G.,
Seventy Pregnancies in Patients Treated with Laparoscopic Adjustable Gastric Banding
for Morbid Obesity,
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) is increasingly recommended to women of reproductive age. For continued use, LAGB needs to be proven to be safe and well-tolerated during pregnancy. Maternal obesity is a well-recognized risk factor for gestational diabetes, maternal hypertension and is more likely to result in instrumental delivery or caesarean section. Weight control with the LAGB may reduce the incidence of these complications. METHODS: An observational study was conducted of the LAGB in pregnancy, including a study comparing outcomes of LAGB pregnancies with previous non-LAGB pregnancies. Women who had had successful LAGB pregnancies were identified from a computerized database. A telephone questionnaire was used to collect the additional outcome data needed and was administered by an independent medical practitioner. RESULTS: 49 LAGB and 31 previous non-LAGB pregnancies were included. 2 LAGBs (4%) required removal during pregnancy. Mean maternal weight gain was significantly reduced in the LAGB group, 3.7 kg vs 15.6 kg (P <0.0001), with no effect on fetal weight, 3.31 vs 3.53 kg, or neonatal complications, 4% and 3%. The incidence of gestational diabetes, 8 and 27% (P =0.048), and hypertension, 8 and 22.5% (P =0.06) was significantly reduced in the LAGB group. The overall complication rate during pregnancy for LAGB was 20.4% and 52% for non-LAGB (P =0.0037) CONCLUSION: LAGB is safe and well-tolerated during pregnancy with a lower incidence of gestational diabetes and maternal hypertension. LAGB can be safely recommended to morbidly obese women of childbearing age.
BACKGROUND: A percentage of all types of bariatric surgery will fail. Our experience with failed biliopancreatic diversion (BPD) as a primary operation or revision operation for failed laparoscopic adjustable gastric banding (LAGB) convinced us that uncontrolled hunger is often the underlying cause. To control hunger after failed bariatric surgery, a novel approach combining LAGB with BPD-duodenal switch (DS) has been tried. METHODS: Patients who had failed to lose weight after BPD or LAGB were considered in 2 groups. Group 1: patients who had failed LAGB underwent laparoscopic BPD-DS without sleeve gastrectomy, with the LAGB left in-situ. Group 2: patients who had failed primary (subgroup 2a) or revision (subgroup 2b) BPD had a LAGB placed with no other revision of their surgery. RESULTS: 11 patients have undergone this form of revision surgery with little morbidity. Mean age at the original operation was 45 years, mean (range) BMI was 45.3 (38-62) kg/m². After the reoperation, at 3 months (9 patients) mean BMI was 30 kg/m² and at 6 months (4 patients) mean BMI was 27 kg/m². CONCLUSION: In this small study, combination surgery was safe and effective for failed BPD or LAGB. LAGB failure may be best managed with DS malabsorption without gastric resection.
1095. Slater G, Duncombe J, Fielding G, Poor weight loss despite biliopancreatic diversion and subsequent revision to a 30-cm common channel after initial laparoscopic adjustable gastric banding: an analysis of 8 cases, *Surgery for Obesity and Related Diseases*, 1, 2005, 573-579. (LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) fails in 5% of patients due to band-related complications or patient intolerance. A subset of patients subsequently managed with biliopancreatic diversion (BPD) have failed to achieve a percentage of excess weight loss (%EWL) > 50% or a body mass index (BMI) < 35 kg/m(2) even after a further procedure shortening the common channel to 30 cm. METHOD: A computerized obesity database was used to identify the study group and collect preoperative and outcome data. Patient outcomes were analyzed in 2 groups: LAGB removed either because of a failure to lose weight (FTLW) or because of a band-related complication (eg, recurrent gastric prolapse, gastric erosion, intractable dysphagia). RESULTS: A total of 2300 patients underwent LAGB between 1996 and 2003. LAGB failed in 95 (4%) of these patients, 79 of whom had subsequent BPD. Of these 79 patients, 8 (10%) failed to lose further weight and had their common channel shortened to 30 cm. Six patients were identified who, despite this revision surgery, still had a BMI > 35 kg/m(2) or %EWL < 50 and are considered failures. Two further patients failed to lose any weight after revision for what they saw as an unsatisfactory outcome. There was minimal evidence of malabsorption in these 8 patients, and 4 had slow intestinal transit down the alimentary limb of the BPD. CONCLUSION: The reasons for the failure of malabsorption and restrictive surgery in these patients appear to be physiological, not psychological. Uncontrolled hunger, particularly in the patients with FTLW, and an abnormally slow metabolism are likely to be important.


Esophageal perforation is a serious complication that requires prompt recognition and treatment. We present the case of a patient with lower esophageal perforation that apparently resulted from orogastric calibration-tube passage during laparoscopic placement of a gastric band. The complication was diagnosed early postoperatively, and was able to be successfully treated by laparoscopy, debanding, drainage, and parenteral nutrition.

Soto F., Antozzi P., Cho M-&, Lascano C., Szomstein S., Rosenthal R.,
Gastric banding in patients >65 years of age: The Cleveland Clinic Florida Experience,
Surgery for Obesity and Related Diseases 1, 2005, 248.
(LAP-BAND® System Abstract)

Souza S., Faintuch J., Valezi A., Saint’Anna A., Coelho A., Gama-Rodrigues J.,
Pulmonary Function and Aerobic Capacity in Asymptomatic Bariatric Candidates with Very Severe Morbid Obesity,
(LAP-BAND® System Congress Presentation Abstract)
1101. Speybrouck S., Aelvoet C., Toliens T., Vanrycke JP, 
Use of Gentamicin in the Treatment of Access-Port Infections, 
(LAP-BAND® System Article)

**BACKGROUND:** A therapy concept for access-port infections is presented. **METHODS:** Between January 2001 and May 2005, 556 adjustable gastric bands were placed laparoscopically, and access-port infection data were analyzed. 6 early infections and 1 late infection occurred. 2 early infections were treated successfully with placement of a PMMA-chain at the port-site--without port removal. 2 other early infections were treated successfully with port removal and later reconnection; however, infection recurred at the access-port soon after reconnection, so a PMMA-chain was positioned around the port. The last 2 early infections were treated successfully by port removal and later connection of a new access-port surrounded by a PMMA-chain. The late access-port infection appeared to be caused by gastric erosion. **RESULTS:** Complete healing was achieved in all cases of early infection, and follow-up revealed no complications with subsequent band adjustments. The gastric erosion required removal of the entire banding system. **CONCLUSION:** For early port infection, the placement of a PMMA-chain around the subcutaneous port appears to be a safe and effective approach that is less invasive than the usual port removal under general anesthesia. Placing the PMMA-chain is a rapid and simple procedure that allows retention of the original access-port. Once local healing is complete, the port can then be accessed easily and safely for band inflation.

1102. Spivak H., Favretti F., 
Avoiding Postoperative Complications with the LAP-BAND System, 
*The American Journal of Surgery (Supplement), 184*, 2002, 315-37S. 
(LAP-BAND® System Article)

The most frequently occurring complications associated with the LAP-BAND (INAMED Health, Santa Barbara, CA) include gastric prolapse, stoma obstruction, esophageal and gastric pouch dilatation, erosion, and access port problems. This article describes the causes of these complications and details some points for their prevention and treatment. As techniques for placement of the LAP-BAND have evolved, complication rates have declined. For example, occurrence of gastric prolapse was reduced from the initially reported rates of 22% to less than 5%. The emergence of many problems, such as gastric pouch dilatation or prolapse, can be minimized with proper operative technique and close postoperative management and follow-up. As with other major surgical procedures, particularly those performed in the bariatric population, complications associated with the LAP-BAND system are unavoidable but are rarely life-threatening if managed appropriately. Surgeons and patients should adopt strategies that will help avoid complications and be sensitive to any indication of their emergence.

1103. Spivak H., Rubin M., 
Laparoscopic Salvage of a Slipped LAP-BAND®, 
*Obesity Surgery, 12*, 2002, 205. 
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: The technical aspects of access-port (AP) placement are not generally described in Lap-Band series. METHODS: From November 2000 to April 2002, we performed Lap-Band procedures laparoscopically on 180 patients. A retrospective review was conducted of 3 consecutive AP-placement techniques in nonselected and demographically identical groups. In Group A (n=48, Nov. 2000 to July 2001), the AP was placed at the left subcostal margin. In Group B (n=23, Aug. 2001 to Sept. 2001), the AP was tunneled over the subcostal fascia towards the subxiphoid area. In Group C (n=109, Oct. 2001 to Apr. 2002), the AP tubing was tunneled over the subcostal fascia and connected to the AP, which was inserted through a 3-cm subxiphoid incision. RESULTS: AP-related problems occurred within the first few months following surgery. In Group A, 24 of the APs (50%) were tilted, and 14 (29%) were completely flipped over. 11 APs (23%) were found to be broken. 19 patients (40%) underwent an additional AP-related procedure. In group B, 12 APs (52%) were tilted and 1 patient required surgery to turn the AP. In Group C, 8 APs (7%) were turned slightly. 1 AP was found to be broken and required surgery to replace it. In this group, all APs were accessible for adjustment in the office. CONCLUSIONS: Tunneling the AP along the left subcostal area is an important technique to protect the AP system from breakage, by changing AP-tube position from vertical to horizontal in relation to abdominal wall movement. This technique also keeps the AP-tube connection over the fascia and protects it from "wear and tear" forces. The addition of fixation at the subxiphoid location helps maintain a straight orientation of the AP for easier adjustments.
BACKGROUND: The Lap-Band is generally associated with a low morbidity rate. Although gastric slippage through the band remains a concern, the rate has diminished with new band placement techniques. METHODS: Between November 2000 and June 2002, 198 Lap-Band Systems were inserted in patients in the Houston, Texas, area. 4 of these patients, plus an additional patient whose Lap-Band had been inserted by another surgeon, developed slippages, and in each case the gastric slip was corrected and the band was salvaged and repositioned laparoscopically. To facilitate dissection and repositioning of the band in 3 of these patients, the band had to be unlocked using a simple laparoscopic technique. RESULTS: All patients were discharged the morning following surgery with no complications and good position of the band as evidenced by esophagogram study and resolution of symptoms. After 2 to 12 months follow-up, all 5 patients remain symptom-free and continue to lose weight. CONCLUSIONS: Gastric slippage with the Lap-Band can be managed by laparoscopic salvage and repositioning of the slipped band.

BACKGROUND: The LAP-BAND system is considered an important bariatric surgery procedure in many countries and is rapidly gaining acceptance in the United States. Outcomes data emerging in the United States parallel European and Australian experience. The purpose of this study was to examine our experience with this procedure in the United States. METHODS: Between November 2000 and September 2002, 271 patients (236 women) underwent LAP-BAND system placement. The mean age of patients was 40 years (18-63); preoperative mean body weight was 125 kg (93-192). Surgeries were performed using either the two-step (pars flaccida to perigastric) or the pars flaccida technique with three (1.1%) conversions to open procedures. Mean operative time was 42 min (23-86); average hospital stay was 1 day (4 h to 7 days). RESULTS: The mean body mass index (BMI) decreased from a baseline of 45.3 kg/m(2) (35-68) to 41.9 (n = 178), 39.5 (n = 101), 38.4 (n = 81), 36.5 (n = 72), 35.9 (n = 51), and 35.1 (n = 21) kg/m(2) at 3, 6, 9, 12, 18, and 24 months, respectively, after surgery. Mean excess weight loss was 40% at 12 months and 43% at 24 months. As patients lost weight, comorbid conditions improved. No deaths occurred, no bands had to be removed, and postoperative complications were minor: 20 (7.3%) access port problems, 18 (6.6%) gastric pouch dilatations, five (1.8%) gastric slippages, and five (1.8%) stoma obstructions. All were managed conservatively or repaired laparoscopically using the original bands. Additional complications included four cases of pneumonia and one case of pulmonary embolism. One patient required reoperation because of trocar site bleeding. CONCLUSIONS: The LAP-BAND system is a safe and effective bariatric procedure leading to considerable weight loss and reduction in comorbidity.
1107. Spivak H., Hewitt M., Onn A., Half E.,
Weight loss and improvement of obesity-related illness in 500 U.S. patients following laparoscopic adjustable gastric banding procedure,
(LAP-BAND® System Article)

BACKGROUND: Obesity and its related illness is a primary health concern today. METHODS: Five hundred morbidly obese patients (mean age 42 years; mean preoperative weight 123 kg) underwent laparoscopic adjustable gastric banding surgery in a private U.S. hospital setting within a comprehensive multidisciplinary bariatric program. Patients were followed up to 36 months. Comorbidity status was assessed for 163 patients who completed > or =18 months' follow-up by comparing medications (type and dosage) prescribed for each comorbid condition before surgery and at follow-up. RESULTS: At 36 months after surgery, mean body mass index (BMI) had decreased from 45.2 to 34.9 kg/m(2) and mean percent excess weight loss (%EWL) was 47%. Complications were as follows: gastric pouch dilatation (6.8%), slippage (2.8%), and stoma obstruction (0.6%). There was no mortality. Resolution or improvement of comorbidities were as follows: gastroesophageal reflux disease (GERD) (87%; usually immediately postsurgery), asthma (81.8%), diabetes (66%), dyslipidemia (65.5%), hypertension (48%), and sleep apnea (33%). CONCLUSIONS: Gastric banding provides good weight loss and significant reduction in comorbidities with few and minor complications.
1108. Srikanth M., Oh KH, Keskey T., Rumbaut R., Fox RS, Fox E., Fox K.,
Critical Extreme Anterior Slippage (Paragastric Richter’s Hernia) of the Stomach after
Laparoscopic Adjustable Gastric Banding: Early Recognition and Prevention of Gastric
Strangulation,
(LAP-BAND® System Article)

**BACKGROUND:** We report an unusual complication after Lap-Band placement characterized by
herniation of the anterior stomach through the band. **METHODS:** Group 1 - 105 patients: Operated
elsewhere (prior to US FDA approval) and followed by us; perigastric technique was used in 74 and
pars flaccida in 31. Group 2 - 218 patients: Operated by us since August 2001 using the pars flaccida
approach only. 4 patients with this unusual problem were identified. **RESULTS:** Patients were all
female, with age 37.5 (33-43) yr, weight 143.7 (123-167) kg, and BMI 54 (45-65). Onset occurred at 9 (5-
16) months, with weight loss: 38.5 (27-53) kg and %EWL 47.3 (31-54)%. All had sudden nausea,
vomiting and epigastric abdominal pain that persisted despite emptying the band. None of these
symptoms were related to a recent band adjustment. CT scan showed a paragastric Richter's hernia of
the stomach underneath the band. At exploration, the band was in the normal location. 3 patients
from Group 2 had Richter's hernia of the anterior stomach through the band; reduction of the
stomach with closure of the defect was performed. One patient from group 1 had gangrene of the
entrapped stomach, resulting in band removal and gastrectomy. **CONCLUSION:** Lap-Band patients
with sudden nausea, vomiting and abdominal pain, when not relieved by emptying the band, should
undergo a CT scan. If a traditional slippage is not confirmed, paragastric Richter's hernia of the
stomach through the band should be suspected. Immediate exploration with reduction of the
stomach and closure of the defect can salvage the stomach and the band. Gastro-gastric sutures must
completely close the space underneath the band to prevent this complication.

1109. Srikanth M., Oh K., Fox R., Fox E., Failoni A., Fox K.,
Improved weight loss associated with increased number of LAP-BAND adjustments,
*Surgery for Obesity and Related Diseases 1, 2005, 232.*
(LAP-BAND® System Abstract)
1110. Srikanth M., Fox R., Oh K., Ward K., Sun H., Keskey T., Fox E., Fox K.,
Renal cell carcinoma following bariatric surgery,
(LAP-BAND® System and Bariatric Surgery Article)

BACKGROUND: Obesity, hypertension, smoking, and amphetamine diet pills increase the risk for renal cell carcinoma (RCC). Obesity causes a four-fold increase. We report our 11-year experience with RCC after bariatric operations. METHODS: 5 patients with RCC were identified out of 2,287 bariatric surgical patients since 1993 on retrospective chart review. RESULTS: 4 of the 5 patients were females. At time of their bariatric operation, patients were age 29-52 (43.4) years, weighed 109-158 (129.8) kg, and BMI was 43-60 (49.4). All tumors were incidentally discovered 8-66 (27.4) months postoperatively when the patients weighed 54-94 (71.4) kg, with BMI 21-34 (26.6). Preoperative renal ultrasound obtained within 3 months of the bariatric operation was normal in 4; the other did not have a preoperative study. The latter patient had a vertical banded gastroplasty 12 years before and the RCC was discovered 5 1/2 years later during work-up for a revision. 3 had a distal gastric bypass and 1 underwent adjustable gastric banding. 4 of the patients had a radical nephrectomy and 1 underwent a partial nephrectomy. Tumors were 2.0-8.7 (4.4) cm in size, and all were clear-cell RCC without vascular or extrarenal involvement. None has had recurrence at 3-67 (30.8) months follow-up. 1 patient died from a stroke 18 months later. CONCLUSION: Reversal of obesity following bariatric surgery does not eliminate risk for RCC. Preoperative and annual postoperative ultrasonography may be useful in identifying early stage RCC. Lesions that are not pure cysts must be evaluated with CT scans or MRI. Nephrectomy may be curative.

1111. Srikanth M, Oh K, Fox E, Fox S, Fox K,
Laparoscopic Repositioning of Slipped LAP-BAND (LAGB): A Case for Routine Removal of Epigastric Fat-Pads at Initial Placement
*Obesity Surgery*, 16, 2006, 980.
(LAP-BAND® System Abstract)

1112. Steinbrook R.,
*Surgery for Severe Obesity,*
(LAP-BAND® System Article)

No abstract available

1113. Stephens M., O’Brien P.,
Data Management of LAP-BAND® Patients – A Soluble Challenge,
*Obesity Surgery*, 8, 1998, 413.
(LAP-BAND® System Congress Presentation Abstract)
Most reports of outcome following obesity surgery report weight and co-morbidity changes only. We studied body composition changes in 17 adult patients (15 F, 2 M, age 43+/-2 years, range 28-58 years), with morbid obesity (initial BMI 40.4+/-4.9 kg/m(2), range 34.7-48.8) who were managed surgically by laparoscopically inserting an adjustable gastric band. Body composition was studied before and after surgery (mean interval of 909+/-51 days, range 441-1155 days) using anthropometry (abdominal circumference, AC, sum of four skinfold thicknesses, SFSUM), whole-body potassium counting (TBK), in vivo neutron activation analysis total body nitrogen (TBProtein) and whole-body dual-energy ray absorptiometry (total body percent fat TBF%, and total body bone mineral density TBBMD). Weight loss over the study period was 23.4+/-2.5 kg. (p<0.0003) with an AC reduction of 20.0+/-4.5 cm (p<0.008). Both SFSUM and TBF% were significantly reduced (p<0.02 and p<0.0005 respectively). Both TBK and TBProtein after normalization for sex and height, were significantly (p<0.0054 and p<0.001 respectively) reduced, but the ratio of loss of fat mass to fat-free mass, at 4.4:1 was usual for weight loss, and there was no significant changes in the ratio of potassium to protein. TBBMD, after normalization relative to a young same sex adult, was not significantly changed. In this group of patients, most of the substantial weight loss over a 2- to 3-year period was due to loss of fat mass, with relatively less reduction in the components of fat-free mass. Adjustable laparoscopic gastric banding induces fat loss without significant other deleterious effects on body composition.

1115. Stroh C., Schramm H., Hohmann U.,
Complications, Re-Operations and Long Term Experiences after Open and Laparoscopic Gastric Banding,
*Obesity Surgery*, 10, 2000, 328.
(LAP-BAND® System Congress Presentation Abstract)

1116. Stroh C., Schramm H., Hohmann U., Falk A.,
Laparoscopic Management of Post-Operative Complications after Gastric Banding,
(LAP-BAND® System Congress Presentation Abstract)
A morbidly obese woman (BMI 56 kg/m²) in 1998 underwent laparoscopic placement of an adjustable gastric band by the perigastric approach. 5 years later, she complained of reflux and weight regain. X-ray with contrast revealed pouch dilatation. She subsequently underwent a laparoscopic revision including retrocardia band replacement using the pars flaccida technique. During the further course, an epiphrenic diverticulum was diagnosed. Because of danger of perforation of the large thin-walled diverticulum and the esophageal motility disorder, the band was laparoscopically removed and the diverticulum was resected via a transhiatal approach. This case presents a very rare complication after placement of a gastric band and its successful management.
Severe obesity is associated with multiple co-morbidities and is refractory to dietary management with or without behavioral or drug therapies. There are a number of surgical procedures for the treatment of morbid obesity, including purely gastric restrictive, a combination of malabsorption and gastric restriction or primary malabsorption. The purely gastric restrictive procedures, including vertical banded gastroplasty and laparoscopic adjustable silicone gastric banding, do not provide adequate weight loss. African-American patients do especially poorly after the banding procedure with the loss of only 11% of excess weight in one study. Gastric bypass (GBP) is associated with the loss of 66% of excess weight at 1 to 2 years after surgery, 60% at 5 years and 50% at 10 years. For unknown reasons, African-American patients lose significantly less weight than Caucasians after GBP. There is a risk of micronutrient deficiencies after GBP, including iron deficiency anemia in menstruating women, vitamin B12, and calcium deficiencies. Prophylactic supplementation of these nutrients is necessary. Recurrent vomiting after bariatric surgery may be associated with a severe polyneuropathy and must be aggressively treated with endoscopic dilatation before this complication is allowed to develop. The malabsorptive procedures include the partial biliopancreatic bypass (BPD) and BPD with duodenal switch (BPD/DS). The BPD appears to cause severe protein-calorie malnutrition in American patients; the BPD/DS may be associated with less malnutrition. Weight loss failure after GBP does not respond to tightening a dilated gastrojejunal stoma or reducing the size of the gastric pouch. These patients may require conversion to a malabsorptive distal GBP, similar to the BPD. However, because of the risk of severe protein-calorie malnutrition and calcium deficiency BPD should be reserved for patients with severe obesity comorbidity. The risk of death following bariatric surgery is between 1% and 2% in most series but is significantly higher in patients with respiratory insufficiency of obesity. In most patients, surgically induced weight loss will correct hypertension, type II diabetes mellitus, sleep apnea, obesity hypoventilation syndrome, gastroesophageal reflux, venous stasis disease, urinary incontinence, female sexual hormone dysfunction, pseudotumor cerebri, degenerative joint disease pains, as well as improved self-image and employability.

No abstract available
1121. Sugerman H.,
Letter to the Editor: Sweet Eating is not a Predictor of Outcome after LAP-BAND Placement?
*Obesity Surgery, 13, 2003, 468-471.*
(LAP-BAND® System Other)

1122. Sugerman H.,
Summary: Consensus Conference on Surgery for Severe Obesity, 2004 ASBS Consensus Conference,
*Surgery for Obesity and Related Diseases, 2005, 369-370.*
(LAP-BAND® System Article)

No abstract available

1123. Susmallian S., Ezri T., Charuzi I.,
Laparoscopic Repair of Access Port Site Hernia after LAP-BAND® System Implantation,
*Obesity Surgery, 12, 2002, 682-684.*
(LAP-BAND® System Article)

**BACKGROUND:** The appearance of hernia around the access port site after implantation of a laparoscopic adjustable gastric band (LAGB) is a complication that can limit the beneficial effect of the device. We evaluated the incidence of hernias at the port-site for band adjustment and propose a technique for its repair. **METHODS:** A retrospective study was conducted of 459 patients who underwent LAGB system implantation for treatment of morbid obesity between January 1999 and July 2001. We recorded all complications that occurred following LAGB placement, with special emphasis on port site hernia. **RESULTS:** 3 out of the 459 patients (0.65%) had a hernia at the site where the reservoir had been implanted. The use of a trocar > 11 mm should be avoided to prevent this complication. We describe our technique of repair of the hernia by intraperitoneal detachment and pulling of the access reservoir into the peritoneal cavity, intraperitoneal repair of the defect with Gore-Tex Dual mesh, and reimplantation of the reservoir. **CONCLUSIONS:** Our technique successfully repaired the hernia, and enabled continuation of adjustments to the gastric band.
BACKGROUND: The aim of this retrospective study was to identify complications related to the access-port, after Lap-Band system placement by laparoscopy. METHODS: The records of 333 morbidly obese patients who underwent laparoscopic adjustable gastric banding (LAGB) were reviewed for the overall surgical complications. Data was further analyzed regarding the complications related to the access-port. RESULTS: From January 1999 to December 2001, the overall complication-rate with the LAGB was 25.8%. 45 complications (13.5%) were related to the access-port in 34 patients following LAGB placement. The 45 access-port complications were distributed as follows: infection 51.1%, tubing disconnection 17.7%, dislodgment of the access-port 15.6%, leak of the reservoir 11.1%, and skin ulceration by the port 4.45%. CONCLUSION: The integrity of the Lap-Band system is essential to achieve the objective of the operation: weight loss. Complications related to the access-port were relatively frequent, but preventable.

BACKGROUND: Gastric banding is today a common restrictive procedure to treat morbid obesity. After operation, adjustment of the band is required to adequately restrict food intake, allowing better results. The aim of this study was to evaluate the results of a unique method of adjustment using dynamic radioisotope scintigraphy. METHODS: 40 patients after Laparoscopic Adjustable Gastric Banding (LAGB) were prospectively divided into 2 equal groups, and the results of adjustment analyzed using the conventional method of fluoroscopic image and barium swallow (FA Group), and our proposed new method of dynamic radioisotope scintigraphy (DRS Group) using Tc99-phytate labeled plain yogurt. RESULTS: After 6 months follow-up, the FA group lost 12.34%, while the DRS group lost 20.34% of their initial weight. In the FA group, we found that 95% of the patients needed re-adjustments versus only 25% in the DRS group (P <0.0001). Vomiting was more frequent in the FA group than in the DRS group, mean 0.65 and 0.2, respectively (P < 0.009). The radiation exposure was 4 times higher in the FA group, but the cost of the 2 adjustment procedures was similar. CONCLUSION: DRS is a more physiologically friendly and accurate method of gastric banding adjustment than the conventional barium swallow adjustment; it also results in a better weight loss during the first 6 months after operation.
1127. Suter M., Bettschart V., Jayet C., Jayet A.,
   Early Results of Laparoscopic Gastric Banding Compared to Open Vertical Banded Gastroplasty,
   (LAP-BAND® System and VBG Abstract)

1128. Suter M., Bettschart V., Giusti V., Heraief E., Jayet A.,
   A Three Year Experience with Gastric Banding for Obesity,
   (LAP-BAND® System and Swedish Band Abstract)

1129. Suter M., Giusti V., Heraief E., Jayet A.,
   Laparoscopic Gastric Banding for Morbid Obesity: An Initial Experience of 125 Cases Comparing Results with a Previous Series of Vertical Banded Gastroplasties,
   (LAP-BAND® System Article)

   **No abstract available**

1130. Suter M., Jayet A., Giusti V., Heraief E.,
   Laparoscopic Band Repositioning for Pouch Dilatation after Laparoscopic Gastric Banding,
   (LAP-BAND® System and Swedish Band Abstract)
BACKGROUND: The introduction of laparoscopy and the increasing awareness that surgery is the only efficient long-term treatment for morbid obesity have been followed by an enormous increase in the demand for bariatric surgery. We introduced laparoscopic gastric banding (GB) in 1995, after a 15-year experience with vertical banded gastroplasty (VBG). The aim of this article is to compare the early results of this new technique with those of VBG. METHODS: The charts of all the patients who underwent VBG (group A) between 1981 and 1995 were reviewed. The data for the patients who underwent laparoscopic GB (group B) between December 1995 and March 1998 were collected prospectively. Weight loss was compared between groups. All the complications arising during follow-up in the laparoscopy group were considered for analysis. In the VBG group, the complications during the first 18 postoperative months were taken into consideration. RESULTS: There were 197 patients in group A and 76 patients in group B. The ages and risk factors were similar in both groups, but the mean body weight (116 kg vs. 121 kg, P < 0.01) and the mean body mass index (BMI) (42.7 versus 45.5, P < 0.001) were significantly higher in the laparoscopy group. If the first 30 patients of group B are excluded, duration of surgery was not different between groups. Mortality was similar, but the postoperative morbidity was higher in the VBG group (23.8% vs. 8.0%, P < 0.005). The hospital stay was much shorter in group B. Weight loss was less after 6 and 12 months in group B but was similar after 18-24 months in both groups. During early follow-up as defined in the Methods section, overall morbidity and the need for reoperation were not different between groups. Most complications were noted among the first 30 patients operated on. CONCLUSIONS: Laparoscopic GB takes no longer to perform than VBG once the learning curve is over. It is associated with less postoperative morbidity and a much shorter hospital stay. Weight loss is slower after laparoscopic GB but is similar to that achieved after 18-24 months by VBG. With proper surgical technique, laparoscopic GB can be performed adequately with a very low rate of postoperative and long-term complications. Considering the high incidence of long-term complications after VBG, it is probable that laparoscopic GB will eventually replace VBG as the restrictive procedure of choice for morbid obesity.

1132. Suter M., Giusti V., Heraief E., Calmes J.M., Zysset E., Jayet A.,
A Prospective Randomized Study Comparing the SAGB and the LAP-BAND® For Laparoscopic Gastric Banding: Early Results,
*Obesity Surgery, 10*, 2000, 324.
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: The introduction of laparoscopic techniques-especially that of gastric banding-and the fact that conservative management does not provide satisfactory long-term results in patients with morbid obesity has resulted in a marked increase in the demand for bariatric surgery in our department since 1995. In this paper, we present our experience during the first 3 years with this approach. METHODS: Data for all patients who had bariatric surgery at our institution were collected prospectively. They were analyzed for the purpose of this study. RESULTS: A total of 150 patients were operated on between December 1995 and December 1998 (37 months). There were 130 women and 20 men, with a mean age of 37.5 years (range, 19-62). The mean initial excess body weight was 102.9% (range, 58-191%), and the mean initial body mass index (BMI) was 44.6 kg/m\(^2\) (range, 35.1-64.1). A Lapband was used in 101 cases and a SAGB in 47 cases. In two patients in whom conversion was necessary, we performed a vertical banded gastroplasty. Duration of surgery decreased over time from 210 min (first 20 cases) to 73 min (last 20 cases). Six patients (4%) developed major complications, one of whom died. The median duration of postoperative hospital stay was 3 days. The mean follow-up was 17 months. In all, 24 patients (16%) developed late complications, and 22 (14.6%) required reoperation, mainly for band slippage and/or pouch dilatation (14 cases). An incorrect surgical technique used for the first 30 patients (Lapband within the lesser sac) was responsible for more than half of these complications. The mean excess weight loss was 34% at 6 months, 55% at 1 year, and 56% at 2 years. Compared to vertical banded gastroplasty (197 cases between 1981 and 1995), postoperative morbidity was greatly decreased, late morbidity was similar, and weight loss was equivalent. CONCLUSIONS: Laparoscopic gastric banding is followed by a weight reduction that is similar to that observed after vertical banded gastroplasty, with a much lower postoperative morbidity, a shorter hospital stay, and an earlier resumption of normal activities. If these results can be confirmed by long-term follow-up, laparoscopic gastric banding will be confirmed as the restrictive procedure of choice for morbid obesity.
BACKGROUND: Pouch dilatation with or without slippage of the band is a serious complication of gastric banding, often attributed to initial malpositioning of the band. Food intake is increased, and weight regain occurs. Progressive rotation of the band follows, leading to functional stenosis and dysphagia. Reoperation is necessary in most cases, and may consist of band removal, band change, band repositioning, or conversion to another bariatric procedure. MATERIAL AND METHODS: The study consisted of chart review of all patients who underwent laparoscopic repositioning of the band for pouch dilatation/slippage, and long-term follow-up through regular office visits and phone calls. RESULTS: Among 272 patients who had laparoscopic gastric banding, 20 (7.3%) developed pouch dilatation and/or slippage, of whom 19 underwent reoperation. Laparoscopic band repositioning was performed in 9 patients. One of them developed an intraabdominal collection postoperatively and required percutaneous CT-guided drainage. Recovery was uneventful in the other 8. Follow-up since reoperation varies from 13 to 42 months (mean 20 months). The result was good in 2 patients who lost further weight, satisfactory in 1 whose weight remained stable, and unsatisfactory in 6 patients. Weight loss was insufficient in 2, dilatation recurred in 2, and band infection or erosion developed each in 1 patient. 5 patients required further surgery: band removal in 3 and conversion to gastric bypass in 2. CONCLUSIONS: Laparoscopic band repositioning is feasible and safe if pouch dilatation and/or slippage develops after gastric banding. The mid-term results are disappointing in two-thirds of the patients. In some patients, pouch dilatation could result from poor adjustment to diet restriction rather than merely from original malplacement. Conversion to gastric bypass may be a better option in these cases.

1135. Suter M., Giusti V., Heraief E., Calmes J.M.,
Band Erosion after Laparoscopic Gastric Banding: Occurrence and Results after Conversion to Gastric Bypass,
Obesity Surgery, 13, 2003, 578.
(LAP-BAND® System Congress Presentation Abstract)

1136. Suter M., Giusti V., Heraief E., Calmes J.M.,
A Comparison Between Laparoscopic Gastric Banding and Laparoscopic Gastric Bypass for Morbid Obesity: Early Results,
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Laparoscopic adjustable gastric banding is a popular bariatric operation. Unfortunately, long-term complications such as slippage, infection, and intragastric migration (erosion) may occur. With erosion, band removal is mandatory. Options to prevent weight regain are delayed implantation of a new band, or conversion to another bariatric procedure such as Roux-en-Y gastric bypass (RYGBP) or biliopancreatic diversion. We present our experience with band erosion and immediate or delayed conversion to RYGBP.

METHODS: With a multidisciplinary team approach and prospective data collection, a comparison was made between patients with and without band erosion. The patients who were converted to RYGBP for band erosion were analyzed.

RESULTS: Gastric banding was performed on 347 patients between 1995 and 2002. Median follow-up is 52 months. Band erosion developed in 24 patients (6.8 %). The latter were heavier before gastric banding (BMI 45.9 vs 43.3, P <0.01). No band had ever been overinflated. Band erosion was diagnosed after a mean of 22.5 months (3-51). At time of diagnosis, mean BMI of 33.5 kg/m² (22.5-48) and average excess weight loss (EWL) of 52.9% (25-97) did not differ from that of the remaining patients at the respective time interval. The band was removed in all cases. Conversion to RYGBP was performed at the same time in 11, and a few months later in 2 patients. Operative morbidity included 1 leak (reoperation) and 4 wound infections. All but 1 patient lost further weight after reoperation, or at least maintained their weight. At last follow-up, mean EWL in relation to the pre-banding weight was 65.1%, and 69.2% of the patients had an EWL >50%, which compares favorably with the results obtained after primary RYGBP.

CONCLUSIONS: In our series with a median follow-up >4 years, band erosion was more common than usually reported. Band removal with immediate or delayed conversion to RYGBP is feasible with an acceptable morbidity, and prevents weight regain in most cases. These results support further use of this approach for band erosion.
OBJECTIVE: The objective of this study was to evaluate the results of laparoscopic gastric banding using 2 different bands (the Lapband [Bioenterics, Carpinteria, CA] and the SAGB [Swedish Adjustable Gastric Band; Obtech Medical, 6310 Zug, Switzerland]) in terms of weight loss and correction of comorbidities, short- and long-term complications, and improvement of quality of life in morbidly obese patients SUMMARY BACKGROUND DATA: During the past 10 years, gastric banding has become 1 of the most common bariatric procedures, at least in Europe and Australia. Weight loss can be excellent, but it is not sufficient in a significant proportion of patients, and a number of long-term complications can develop. We hypothesized that the type of band could be of importance in the outcome. METHODS: One hundred eighty morbidly obese patients were randomly assigned to receive the Lapband or the SAGB. All the procedures were performed by the same surgeon. The primary end point was weight loss, and secondary end points were correction of comorbidities, early- and long-term complications, importance of food restriction, and improvement of quality of life. RESULTS: Initial weight loss was faster in the Lapband group, but weight loss was eventually identical in the 2 groups. There was a trend toward more early band-related complications and more band infections with the SAGB, but the study had limited power in that respect. Correction of comorbidities, food restriction, long-term complications, and improvement of quality of life were identical. Only 55% to 60% of the patients achieved an excess weight loss of at least 50% in both groups. There was no difference in the incidence of long-term complications. CONCLUSIONS: Gastric banding can be performed safely with the Lapband or the SAGB with similar short- and midterm results with respect to weight loss and morbidity. Only 50% to 60% of the patients will achieve sufficient weight loss, and close to 10% at least will develop severe long-term complications.
BACKGROUND: Gastroesophageal reflux and progressive esophageal dilatation can develop after gastric banding (GB). HYPOTHESIS: Gastric banding may interfere with esophageal motility, enhance reflux, or promote esophageal dilatation. DESIGN: Before-after trial in patients undergoing GB. SETTING: University teaching hospital. PATIENTS AND METHODS: Between January 1999 and August 2002, 43 patients undergoing laparoscopic GB for morbid obesity underwent upper gastrointestinal endoscopy, 24-hour pH monitoring, and stationary esophageal manometry before GB and between 6 and 18 months postoperatively. MAIN OUTCOME MEASURES: Reflux symptoms, endoscopic esophagitis, pressures measured at manometry, esophageal acid exposure. RESULTS: There was no difference in the prevalence of reflux symptoms or esophagitis before and after GB. The lower esophageal sphincter was unaffected by surgery, but contractions in the lower esophagus weakened after GB, in correlation with preoperative values. There was a trend toward more postoperative nonspecific motility disorders. Esophageal acid exposure tended to decrease after GB, with fewer reflux episodes. A few patients developed massive postoperative reflux. There was no clear correlation between preoperative testing and postoperative esophageal acid exposure, although patients with abnormal preoperative acid exposure tended to maintain high values after GB. CONCLUSIONS: Postoperative esophageal dysmotility and gastroesophageal reflux are not uncommon after GB. Preoperative testing should be done routinely. Low amplitude of contraction in the lower esophagus and increased esophageal acid exposure should be regarded as contraindications to GB. Patients with such findings should be offered an alternative procedure, such as Roux-en-Y gastric bypass.
1141. Suter M, Calmes JM, Paroz A, Giusti V, 
A 10-Year Experience with Laparoscopic Gastric Banding for Morbid Obesity: High 
Long-Term Complication and Failure Rates, 
*Obesity Surgery*, 16, 2006, 829-835
(LAP-BAND® System Article)

BACKGROUND: Since its introduction about 10 years ago, and because of its encouraging early results regarding weight loss and morbidity, laparoscopic gastric banding (LGB) has been considered by many as the treatment of choice for morbid obesity. Few long-term studies have been published. We present our results after up to 8 years (mean 74 months) of follow-up. METHODS: Prospective data of patients who had LGB have been collected since 1995, with exclusion of the first 30 patients (learning curve). Major late complications are defined as those requiring band removal (major reoperation), with or without conversion to another procedure. Failure is defined as an excess weight loss (EWL) of <25%, or major reoperation. RESULTS: Between June 1997 and June 2003, LGB was performed in 317 patients, 43 men and 274 women. Mean age was 38 years (19-69), mean weight was 119 kg (79-179), and mean BMI was 43.5 kg/m(2) (34-78). 97.8% of the patients were available for follow-up after 3 years, 88.2% after 5 years, and 81.5% after 7 years. Overall, 105 (33.1%) of the patients developed late complications, including band erosion in 9.5%, pouch dilatation/slippage in 6.3%, and catheter- or port-related problems in 7.6%. Major reoperation was required in 21.7% of the patients. The mean EWL at 5 years was 58.5% in patients with the band still in place. The failure rate increased from 13.2% after 18 months to 23.8% at 3, 31.5% at 5, and 36.9% at 7 years. CONCLUSIONS: LGB appeared promising during the first few years after its introduction, but results worsen over time, despite improvements in the operative technique and material. Only about 60% of the patients without major complication maintain an acceptable EWL in the long term. Each year adds 3-4% to the major complication rate, which contributes to the total failure rate. With a nearly 40% 5-year failure rate, and a 43% 7-year success rate (EWL >50%), LGB should no longer be considered as the procedure of choice for obesity. Until reliable selection criteria for patients at low risk for long-term complications are developed, other longer lasting procedures should be used.
1142. Szewczyk T, Modzelewski B,
Perioperative comparison of the MiniMizer extra band with the other laparoscopic
gastric bands,
*Obesity Surgery, 16, 2006, 646-650.*
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable gastric banding is a widely used operation for morbid obeity. The most frequent complications of this operation are band migration and pouch dilatation (slippage). The use of the newly introduced MiniMizer Extra band with a unique gastric wall fixation system and a two-degree closure may decrease the postoperative complication rate. Very early (perioperative) results are hereby reported. METHODS: From February 2005 through October 2005, 50 classical bands (Obtech-Ethicon, AMI, Midband, Inamed) and 10 MiniMizer Extra bands were inserted in our department. Bands were chosen randomly. Complications in the very early postoperative period were studied. RESULTS: No statistically significant differences between surgery times were noted—classical bands mean 36 min (20-60), and MiniMizer Extra bands mean 34 min (25-55). No statistically different rates of perioperative complications were noted, with only 2 very minor intraoperative complications in the entire series. CONCLUSIONS: The absence of problems in the perioperative period allows the use of the MiniMizer Extra band as an alternative to classical bands for short- and long-term comparison.

1143. Szold A., Abu-Abeid S.,
Results and Complications of Laparoscopic Adjustable Silicone Gastric Banding (LASGB) in 715 Patients,
*PowerPoint Presentation, Presented at SAGES 2000 in Atlanta, GA* (LAP-BAND® System Presentation)
1144. Szold A., Abu-Abeid S.,
Laparoscopic Adjustable Silicone Gastric Banding for Morbid Obesity: Results and Complications in 715 Patients,
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable silicone gastric banding (LASGB) was used as the initial bariatric procedure for more than 36 months. The efficacy and safety of LASGB were studied.
METHODS: Patients were followed up prospectively in a multidisciplinary center for the perioperative and long-term courses, and for complications. RESULTS: Between November 1996 and May 1999, 715 patients underwent surgery. The mean age was 34.6 years (range, 16-72) years, and the mean body mass index (BMI) was 43.1 kg/m2 (range, 35-66 kg/m2). The mean operative time was 78 min (range, 36-165 min), and the postoperative hospitalization time was 1.2 days (range, 1-8 days). There were six intraoperative complications (0.8%), eight early postoperative complications (1.1%), and no deaths. For follow-up evaluation, 614 patients (86%) were available. Late complications included band slippage or pouch dilation in 53 patients (7.4%), band erosion in 3 patients, and port complications in 18 patients. In 57(7.9%) patients, 69 major reoperations were performed. In patients with a follow-up period longer than 24 months, the average BMI dropped from 43.3 kg/m2 (range, 35-66 kg/m2) to 32.1 kg/m2 (range, 21-45 kg/m2). CONCLUSION: Laparoscopic adjustable silicone gastric banding is safe, with a lower complication rate than any other bariatric procedure. Most reoperations can be performed laparoscopically with low morbidity and short hospitalizations. On the basis of intermediate-term follow-up evaluation, it is an effective procedure for weight-reducing purposes.

1145. Szomstein S, Rosenthal RJ,
Gastric banding in patients >65 years of age: The Cleveland Clinic Florida Experience,
_Obesity Surgery, 15, 2005, 963._
(LAP-BAND® System Abstract)
OBJECTIVE: This article describes the radiographic appearance of a recently developed laparoscopically placed adjustable gastric band for the treatment of morbid obesity. The optimal technique for contrast evaluation of the device, complications associated with its use, and the technique for stoma adjustments are also discussed. SUBJECTS AND METHODS: Between May and December 1996, 23 patients at our institution underwent laparoscopic placement of adjustable silicone gastric bands for treatment of morbid obesity. All patients underwent a barium upper gastrointestinal series before surgery, 1 day after band placement, at variable intervals when each patient returned for band adjustment, and at 1 year. RESULTS: Unlike the case in other gastric weight loss procedures, the optimal patient position for contrast evaluation of gastric bands was anteroposterior or slightly right posterior oblique. Twenty-one of 23 patients had no complications shown on the postoperative upper gastrointestinal series. Stoma size was approximately 3-8 mm, and most patients showed delayed esophageal emptying without obstruction. Two patients had herniation of the stomach through the gastric band with pouch enlargement, resulting in obstruction and the need for additional surgery. We saw no leaks or band erosions. Nineteen stoma adjustments were performed in 13 patients. One patient had an inverted port that could not be accessed for adjustment. CONCLUSION: As adjustable gastric bands become more widely used, radiologists need to be familiar with the radiographic appearance of the devices, the complications associated with their use, and the optimal patient positioning for contrast evaluation. Radiologists may also be involved with band adjustment to decrease or increase the stoma size and therefore need to understand the technique and potential difficulties of adjusting the stoma.

1147. Talbot M, Jorgensen J, Loi K, Gan S, Beban G,
Safe Establishment of a Mixed Bariatric Practice in Australia,
*Obesity Surgery, 16, 2006, 1004.*
(LAP-BAND® System Abstract)
Laparoscopic adjustable gastric banding (LAGB) is gaining popularity as a technique for achieving effective weight loss in the severely obese population. It is a minimally invasive procedure and the reported early morbidity is low. However, we have observed at our institution that occasional patients complain of central chest pain, mimicking angina (verbal pain score of > 7 out of 10), within 2 h after the procedure. This is a worrying symptom because obesity is known to be a major risk factor for developing cardiovascular complications. We have now performed 250 LAGB operations at our hospital. The following four case reports document our patients who presented with early chest pain postoperatively. Common characteristics of male gender, morbid obesity and some degree of obstructive sleep apnoea were identified among the cases. The aetiology of the chest pain is uncertain; nevertheless, close monitoring is vital to exclude pathological events such as acute coronary syndrome.

BACKGROUND: Duodenal obstruction occurred 4 years following gastric banding for morbid obesity, which had had a good result. METHOD: A 56-year-old female with a history of gastric banding presented with duodenal obstruction. RESULT: Physical and radiological examination was able to give the diagnosis. At surgery, the gastric band in the distal duodenum was removed. She was discharged on postoperative day 4, with no complication. At 6 months following discharge, her nausea and vomiting have not recurred. CONCLUSION: Following gastric banding, band erosion through the gastric wall and internalization into the lumen can cause small bowel obstruction.

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1152. Taylor C., Layani L.,
Laparoscopic adjustable gastric banding: results of the first 500 cases using the pars flaccida technique,
(LAP-BAND® System Abstract)

1153. Taylor C, Jamnagerwalla M, Layani L,
The Incidence of Access-Port Infection following Laparoscopic Adjustable Gastric Banding: Conventional Hand-Sutured vs. Applicator Device Placed,
(LAP-BAND® System Abstract)

1154. Taylor C, Layani L,
Laparoscopic Adjustable Gastric Banding in Patients Aged over 60 Years: Is it Worthwhile?
(LAP-BAND® System Abstract)

1155. Taylor S, Marangou A, Lopez D, Hamdorf J, Flanagan S,
Characteristics of Patients Attending a Weight Loss Clinic in Western Australia,
(LAP-BAND® System Abstract)
1156. Ternovitz C, Tichansky D, Madan A, Band versus Bypass: Randomization and Patients’ Choices and Perceptions, Surgery for Obesity and Related Diseases, 2, 2006, 6-10 (LAP-BAND® System Article)

BACKGROUND: Laparoscopic Roux-en-Y gastric bypass (LRYGB) and laparoscopic adjustable gastric banding (LAGB) are becoming increasingly popular; however, little is understood about patients’ motivational factors and reasons for choosing a particular procedure. This investigation explored patient choices and perceptions concerning LRYGB and LAGB. METHODS: A survey was given to 120 consecutive patients who had undergone LRYGB or LAGB 3-24 months earlier. The survey was designed to ascertain why patients chose banding or bypass, and how they rated their surgical outcome. RESULTS: A total of 101 patients responded (84%): 22 had undergone LAGB, 79 LRYGB. The top reason for choosing LRYGB was greater expectation of weight loss, whereas LAGB was chosen for its lower risk. Overall, 21% (18/84) of the patients were willing to be involved in a prospective randomized study of bariatric procedure choice. Six of 19 (32%) patients who underwent LAGB, but only 12 of the 65 (18%) who underwent LRYGB stated that they would be willing to accept randomization between the operations. CONCLUSIONS: Patients expressed varied reasons for choosing their procedure, most related to weight loss or safety profiles. Patients undergoing LAGB would have predicted similar results with either procedure, whereas those undergoing LRYGB showed a trend toward greater overall satisfaction with their operations (p = 0.06) and would have predicted an inferior outcome with the other procedure. Although the overall percentage of patients willing to be randomized is not high, a busy bariatric practice could recruit sufficient numbers of willing patients to undergo a prospective randomized trial of LRYGB and LAGB.

1158. Thomusch O., Kech T., Dobschutz EV, Wagner C., Ruckauer KD, Hopt UT,
Risk factors for the intermediate outcome of morbid obesity after laparoscopically placed
adjustable gastric banding,
(LAP-BAND® System Article)

BACKGROUND: The overall long-term results of medical treatment for morbid obesity are poor.
Surgery is the only treatment option to obtain long-term weight reduction. Analysis of risk factors
for treatment success of laparoscopically placed gastric banding (LGB) has not been available until now.
METHODS: Prospective study with 99 patients with LGB between January 1997 and July 2003. The
parameters assessed as risk factors included onset of obesity, feeling of postprandial satiety, and
initial body mass index (BMI).
RESULTS: Median follow-up was 36 months (3 to 72). Independent
prognostic factors of excess body weight reduction (>25%) were for the first postoperative year: onset
of obesity as an adolescent (relative risk [RR] 0.21), an initial BMI <45 kg/m(2) (RR 4.76), and a BMI
between 45.1 and 50 kg/m(2) (RR 3.23). After the second year, independent prognostic factors were as
follows: feeling of postprandial satiety (RR 5.26) and an initial BMI <45 kg/m(2) (RR 3.03).
CONCLUSION: LGB is suitable to achieve intermediate weight reduction in patients with morbid
obesity. To obtain the best results, patients should be treated before they achieve a BMI >45 kg/m(2).
Additionally a postprandial feeling of satiety after LGB is mandatory for good long-term results.

1159. Thyse C.,
Nursing of Gastroplasty, 15 Years of Experience. The Advantage of the Lap Procedure,
Obesity Surgery, 10, 2000, 311.
(LAP-BAND® System Congress Presentation Abstract)

1160. Tolonen P, Victorzon M, Niemi R, Makela J,
Does Gastric Banding for Morbid Obesity Reduce or Increase Gastroesophageal Reflux?
(LAP-BAND® System Article)

No abstract available

1161. Topart P, Krawczykowski D,
Biliopancreatic Diversion with Duodenal Switch with or without Gastric Resection for
Failed Gastric Banding,
Surgery for Obesity and Related Diseases, 2, 2006, 336.
(LAP-BAND® System Abstract)

1162. Toppino M., Morino M., Bonnet G., Siliquini R.,
Comparison between Different Bariatric Operations: Data from the Italian Registry
(R.I.C.O.),
Obesity Surgery, 9, 1999, 342.
(LAP-BAND® System Congress Presentation Abstract)
1163. Toppino M., Mineccia M., Gorrino S., Siliquin R., Morino F.,
Assessment of Different Bariatric Operations: Data Up to 5 Years from the Italian
Registry (R. I. C. O.),
(LAP-BAND® System Congress Presentation Abstract)

1164. Toppino M., Cesarani F., Comba A., Denegri F., Mistrangelo M., Gandini G., Morino F.,
The Role of Early Radiological Studies after Gastric Bariatric Surgery,
(LAP-BAND® System, VBG, GBP, BPD Article)

**BACKGROUND:** The authors investigated early radiological findings after gastric surgery for morbid
obesity to evaluate their usefulness in avoiding complications or facilitating treatment. **MATERIAL
AND METHODS:** 413 patients underwent gastric bariatric surgery: 327 had vertical banded
gastroplasty (VBG), 55 Roux-en-Y gastric bypass (RYGBP), 22 adjustable silicone gastric banding
(ASGB), and 9 biliopancreatic diversion (BPD). A radiological upper gastrointestinal investigation
employing water-soluble contrast medium was performed in each patient between the 2nd and 8th
postoperative day. Several techniques were employed to assess different radiological findings related
to the anatomic modifications after the bariatric surgery. **RESULTS:** In VBGs, delayed emptying was
found in 10 patients (3%), gastric leak in 3 patients (0.9%), vertical suture breakdown in 1 patients
(0.3%), and a wide pouch in 4 patients (1.2%). In RYGBP, a leak was detected in 2 patients (3.6%),
delayed emptying in 2 (3.6%), and a wide pouch in 5 (9.1%). ASGB required band enlargement for
stomal stenosis in 6 patients (27.2%). Temporary delayed emptying from stomal stenosis was also
observed in 2 BPDs (22.2%). Overall complications were 35/413 (8.2%). Two cases of gastric leak after
VBG were reoperated. Stomal stenosis after ASGB were treated by percutaneous band deflation;
other cases were medically treated until complete healing. **CONCLUSIONS:** Early radiological study
after gastric bariatric surgery is advisable, since it detected postoperative complications (gastric
perforation, stomal stenosis, etc.) and modified the clinical approach. As the interpretation of these
radiographs is often difficult, involving different projections or patient's positions or other technical
managements, surgeons and radiologists must interact and be knowledgable.

1165. Toppino M., Morino M.,
Italian Registry for Bariatric Surgery: An Update on 8,609 Cases,
(LAP-BAND® System Congress Presentation Abstract)

1166. Toppino MT, Rocchietto,
Bariatric Surgery: an update from the Italian Registry,
(LAP-BAND® System Abstract)
Laparoscopic gastric banding is a valuable surgical option for treating morbidly obese patients. Its operative technique is continually being refined. Since its inception, many changes in technique have helped to reduce the complication rate. Currently, the major complications are obstruction, erosion, and band slippage. Band slippage requires surgical correction. Since each band costs approximately 3000 dollars, surgeons should attempt to preserve the band when facing patients with this complication. This paper discusses the techniques for the reduction of band slippage.
BACKGROUND: Obesity is an increasing problem in Australia. It is defined as a body mass index (BMI) >30 kg/m². It is associated with a number of significant medical conditions, as well as psychological morbidity related to poor body image and the social stigma of obesity. Conservative management is rarely successful in patients with morbid obesity and bariatric surgery is an alternative more likely to produce sustained results. METHODS: To compare the initial results of the Lap-Band (Inamed Health, Santa Barbara, CA, USA) procedure when performed by experienced general laparoscopic surgeons, new to the procedure and those achieved by dedicated bariatric practitioners. RESULTS: The results of the present study showed forty-seven per cent excess weight lost at 2 years, 49% excess BMI lost at 2 years. Reoperation rate for band removal, prolapse/slippage was 25.3%. CONCLUSIONS: Acceptable results with Lap-Band are technically achievable by experienced laparoscopic surgeons, new to the procedure and those achieved by dedicated bariatric practitioners. The results of the present study are inferior to those reported by dedicated bariatric practices who have performed large numbers of this operation. The rate of band slippage was unacceptably high and there was a significant problem with patients being lost to follow up. Possible reasons for this are discussed.
1178. van Dielen F., Schaper N., Koks A., Prakken F., Wiebolt J., Greve J.,
Insulin Sensitivity Does Not Change in the First 5 Months after Bariatric Surgery,
(LAP-BAND® System Congress Presentation Abstract)

1179. van Dielen F., Soeters P., van Mastrigt G., Greve J.,
LAP-BAND® vs Open VBG: A Prospective Randomized Trial,
(LAP-BAND® System Congress Presentation Abstract)

1180. van Dielen FMH, Soeters PB, van Mastrigth GAP G, Greve JWM.,
A Prospective Randomized Trial LAP-BAND vs. Open VBG,
(LAP-BAND® System Congress Presentation Abstract)

1181. van Dielen FMH, Severens JS, Voss GBWE, Greve JWN,
One-year cost-effectiveness of surgical treatment of morbid obesity: vertical banded
gastroplasty versus LAP-BAND,
(LAP-BAND® System Abstract)

BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) and open vertical banded gastroplasty (VBG) are treatment modalities for morbid obesity. However, few prospective randomized clinical trials (RCT) have been performed to compare both operations. METHODS: 100 patients (50 per group) were included in the study. Postoperative outcomes included hospital length of stay (LOS), complications, percent excess weight loss (%EWL), BMI and reduction in total comorbidities. Follow-up in all patients was 2 years. RESULTS: LOS was significantly shorter in the LAGB group. 3 LAGB were converted to open (1 to gastric bypass). Directly after VBG, 3 patients needed relaparotomies due to leakage, of which one (2%) died. After 2 years, 100% follow-up was achieved. BMI and %EWL were significantly decreased in both groups but significantly more in the VBG group compared to the LAGB group (31.0 kg/m² and 70.1% vs 34.6 and 54.9% respectively). Co-morbidities significantly decreased in both groups in time. 2 years after LAGB, 20 patients needed reoperation for pouch dilation/slippage (n=12), band leakage (n=2), band erosion (n=2) and access-port problems (n=4). In the VBG group, 18 patients needed revisional surgery due to staple-line disruption (n=15), narrow outlet (n=2) or insufficient weight loss (n=1). Furthermore, 8 VBG patients developed an incisional hernia. CONCLUSION: This RCT demonstrates that, despite the initial better weight loss in the VBG group, based on complication rates and clinical outcome, LAGB is preferred. It had a shorter LOS and less postoperative morbidity.

Van Eerten P., Hunfield J., Tuinebreijer W., Has Functional Stenosis with Pouch Dilatation in ASGB Decreased Since the Pouch was Made Smaller?, Obesity Surgery, 9, 1999, 340. (LAP-BAND® System Congress Presentation Abstract)

Background: This study was designed as an economic evaluation alongside a randomized clinical trial. The object of this study was to evaluate the 1-year cost-effectiveness of surgical treatment of morbid obesity comparing two operations.

Methods: 100 patients were assigned randomly to vertical banded gastroplasty (VBG) or Lap-Band® surgery. Both medical and non-medical costs were identified and measured. Costs data were combined with percentage Excess Weight Loss (%EWL) and with Quality Adjusted Life Years (QALYs) to obtain cost per %EWL and cost per QALY ratios.

Results: At 1 year, the total costs were not significantly different between both groups (95% confidence interval E5,999 - E1,765). Also, the QALY gain after surgery was not significantly different between the two groups. However, %EWL was significantly higher in the VBG group compared to the Lap-Band® group, P-value .0001. The estimated incremental cost per %EWL was E105.83 (E1,885.91/-17.82). For the costs per QALY, the estimated ratio was dominant. The overall mortality in this study was 2%. 2 patients in the VBG group died within 30 days after surgery; 1 of these deaths was possibly related to the VBG procedure.

Conclusion: At 1 year after surgery, the costs and QoL of the two treatment modalities were found to be equal. Therefore, the selection of the procedure can be based on the clinical aspects, effectivity and safety at 1 year. In addition, the results of a long-term cost-effectiveness analysis (e.g. with a follow-up of 36 months) planned in the future can also be helpful in the selection of the preferred treatment.

1186. van Ramshorst B., Larsen J., Geenen R., Stroebe W., van Doornen L.,
Eating Behavior before and after Laparoscopic Adjustable Gastric Banding (LAGB) for Severe Obesity,
(LAP-BAND® System Congress Presentation Abstract)

1187. Van Wageningen B., Berends FJ, van Ramshorst B., Janssen IM,
Conversion of failed laparoscopic adjustable gastric banding to roux-en-y gastric bypass,
Obesity Surgery, 15, 2005, 941.
(LAP-BAND® System Abstract)
1188. van Wageningen B, Berends FJ, van Ramshorst B, Janssen IFM,
Revision of Failed Laparoscopic Gastric Banding to Roux-en-Y Gastric Bypass,
*Obesity Surgery*, 16, 2006, 137-141
(LAP-BAND® System Article)

BACKGROUND: The most common bariatric surgical operation in Europe, laparoscopic adjustable
gastric banding (LAGB), is reported to have a high incidence of long-term complications. Also,
insufficient weight loss is reported. We investigated whether revision to Roux-en-Y gastric bypass
(RYGBP) is a safe and effective therapy for failed LAGB and for further weight loss. METHODS:
From Jan 1999 to May 2004, 613 patients underwent LAGB. Of these, 47 underwent later revisional
Roux-en-Y gastric bypass (RYGBP). Using a prospectively collected database, we analyzed these
revisions. All procedures were done by two surgeons with extensive experience in bariatric surgery.
RESULTS: All patients were treated with laparoscopic (n=26) or open (n=21) RYGBP after failed
LAGB. Total follow-up after LAGB was 5.5+/-.2.0 years. For the RYGBP, mean operating time was
161+/-.53 minutes, estimated blood loss was 219+/-.329 ml, and hospital stay was 6.7+/-.4.5 days. There
has been no mortality. Early complications occurred in 17%. There was only one late complication
(2%)--a ventral hernia. The mean BMI prior to any form of bariatric surgery was 49.2+/-.9.3 kg/m2, and
decreased to 45.8+/-.8.9 kg/m2 after LAGB and was again reduced to 37.7+/-.8.7 kg/m2 after RYGBP
within our follow-up period. CONCLUSION: Conversion of LAGB to RYGBP is effective to treat
complications of LAGB and to further reduce the weight to healthier levels in morbidly obese
patients.

1189. Varela E, Sabio A, Wilson S, Nguyen N,
Outcomes of Laparoscopic Restrictive Bariatric Procedures in Academic Centers,
*Surgery for Obesity and Related Diseases*, 2, 2006, 345.
(LAP-BAND® System Abstract)

1190. Vassallo C., Berbiglia G., Tata S., Pessina A., Fariseo M.,
Which Kind of Bariatric Surgery? Choice Principles in 20 Years,
*Obesity Surgery*, 13, 2003, 579.
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Morbid obesity is an increasingly common condition with serious associated morbidity and decreased life expectancy. The only treatment with long-term efficacy for this condition is surgical intervention. Laparoscopic adjustable gastric banding (LAGB) is a procedure increasingly performed in European centres and recently approved by the FDA in USA. This article reviews its effectiveness and complications. METHODS: A literature search identified relevant articles. RESULTS: LAGB results in approximately 60% (43-78%) excess weight loss at 3 years with improvement in co-morbidities, with perioperative mortality <0.5%. Potential complications include prolapse or pouch dilatation, and port-related complications. Less common complications are intra-operative gastric perforation and band erosion. Rate of reoperation varies greatly between series, and is usually needed for band repositioning or port-related procedures, many of the latter performed under local anesthesia. CONCLUSION: The available data demonstrate that LAGB is a safe bariatric procedure, and is effective in the short- and medium-term. Results of long-term follow-up are awaited.

BACKGROUND: Gastric bezoars may develop in the proximal pouch after gastric restriction. METHODS: Of 299 patients who underwent laparoscopic adjustable gastric banding (LAGB), 4 developed gastric bezoars at different intervals after surgery (24 days, 8 months, 18 months, and 6 years). RESULTS: Symptoms of high dysphagia and vomiting occurred in all 4 patients. Removal of the bezoars via endoscopy was uneventful, and all patients have maintained their gastric band. Patients were emphasized to avoid rapid intake of high-residue cellulose foods, and to achieve complete mastication. No bezoar has recurred in these patients at 7 to 75 months further follow-up. CONCLUSION: Gastric bezoar should be considered after LAGB if the patient complains of persistent high fullness and vomiting.
1194. Vertruyen M.,
Long Term Experience with LAP-BAND® System,
(LAP-BAND® System Congress Presentation Abstract)

1195. Vertruyen M.,
Experience with LAP-BAND® System Up to 7 Years,
(LAP-BAND® System Article)

BACKGROUND: Morbid obesity occurs in 2-5% of the population of Western countries. Laparoscopic adjustable silicone gastric banding was designed to be a minimally invasive, adjustable and reversible procedure for the treatment of morbid obesity. MATERIAL AND METHODS: The Lap-band System was evaluated retrospectively in a series of 543 patients. Data on preoperative aspects and postoperative outcome and weight loss patterns at up to 7 years follow-up (median follow-up 36 months) are presented. RESULTS: The most important late complication was total and irreversible food intolerance due to proximal pouch dilatation, which occurred in 24 patients (4.6%). 20 of these patients (3.8%) had had a proximal pouch calibration with 25 cc; 4 patients were calibrated with 15 cc. The mean BMI had fallen from 44 kg/m² to 33.2 kg/m² and was stable after a follow-up of up to 86 months (median 36 months). CONCLUSION: The Lap-band System is an effective procedure for achieving appreciable and stable weight loss at up to 7 years of follow-up (median 36 months). The minimally invasive approach was associated with a short hospital stay and a low rate of complications. Preoperative patient selection, detailed information and availability of the multidisciplinary team permitted us to achieve good longstanding results.
BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) procedures have proved their efficiency and reproducibility in several studies. The most frequent late complication is proximal pouch dilatation, with possible progression to total food intolerance. MATERIALS AND METHODS: In a series of 727 laparoscopic bandings using the Lap-Band System, 54 patients presented proximal pouch dilatation and required laparoscopic reposition of the band. 2 patients who had had LAGB placed in another hospital received the same treatment. RESULTS: No particular intra- or postoperative complications occurred during laparoscopic repositioning of the band. 2 conversions were necessary in the beginning of the experience to safely unlock the band. After a median follow-up of 74 months, there has been no recurrence of proximal dilatation. CONCLUSIONS: Laparoscopic repositioning of the Lap-Band System for proximal pouch dilatation is a safe and reproducible procedure which can be proposed as an interesting alternative to its replacement by a new one. An initial perigastric placement of the band allows, during the redo, safe dissection in a virgin pars flaccida tunnel. The calibration of the tiny proximal pouch, the presence of postoperative adhesions, and maintainance of strict control of dietary behavior are probably the reasons for the absence of recurrence of pouch dilatation.

BACKGROUND: Intragastric migration (erosion) of the band after laparoscopic adjustable silicone gastric banding (LAGB) is a serious late complication. It requires removal of the entire system. Subsequent recurrence of obesity can be treated by laparoscopic placement of a larger band: the 11-cm Lap-Band System. METHODS: In 727 laparoscopic gastric bandings using the 9.75 Lap-Band, 10 cases presented with intragastric migration of the band. The same complication was encountered in an additional 4 patients who had previously been implanted with an Obtech band in another hospital. Laparoscopic removal of the band was performed in all cases. In 9 cases, after a delay of 6 months, a new gastric band was placed using the 11-cm Lap-Band, because of uncontrollable recurrence of obesity. RESULTS: No complication was observed during the laparoscopic removal of the system. The placement of a new band required conversion to laparotomy in 1 patient who had previously received an Obtech band which had been placed using the pars flaccida technique. After a mean follow-up of 21 months, no intragastric migration of the new bands was noted. CONCLUSIONS: Laparoscopic placement of an 11-cm Lap-Band in patients with a history of intragastric migration is a safe procedure. It allows effective control of recurrent obesity. The laparoscopic procedure was easier in patients initially operated using the perigastric technique.
1198. Vilas-Boas M., Povoas H., Casals O.,
Outcomes after 2 Years of Laparoscopic Adjustable Gastric Banding,
(LAP-BAND® System Congress Presentation Abstract)

1199. Vilas-Boas M., Povoas H., Casais O., Andrade M.,
Laparoscopic adjustable gastric banding – long-term failure,
*Surgery for Obesity and Related Diseases 1*, 2005, 233.
(LAP-BAND® System Abstract)

1200. Villagra P,
Ambulatory Gastric Band,
*Obesity Surgery, 16*, 2006, 1014.
(LAP-BAND® System Abstract)

1201. Vittorio G., Di Vetta V., Suter M., Heraief E., Burckhardt P.,
Impact of peroperatively teaching on patient surgical option (gastric banding vs. Rox-en-y gastric bypass),
(LAP-BAND® System Abstract)

1202. Wagner D., Weiner R., Winterberg U., Bockhorn H.,
How Can a New Technique for Laparoscopic Placement of the Adjustable Gastric Band (LAP-BAND) Prevent Slippage?
(LAP-BAND® System Congress Presentation Abstract)

1203. Waider UW, Hanne-Bruns, D., Wolf A.,
Revisionary surgery after gastric banding: a case report,
(LAP-BAND® System Abstract)

1204. Wasowicz D., Bliemer B., Boom F., de Zwaan N., van Ramshorst B.,
Laparoscopic Adjustable Gastric Banding: Outpatient Procedure versus Overnight Stay, A Randomized Study,
(LAP-BAND® System Congress Presentation Abstract)
1205.  Wasowicz-Kemps D, Bliemer B, Boom FA, de Zwaan NM, van Ramshorst B,  
Laparoscopic gastric banding for morbid obesity: outpatient procedure versus overnight stay,  
*Surgical Endoscopy, 20, 2006, 1233-1237.*  
(LAP-BAND® System Article)

BACKGROUND: In western countries, laparoscopic gastric banding is increasingly used in the surgical treatment of morbid obesity. This study aimed to investigate the feasibility, safety, morbidity, and costs of an outpatient procedure (OP) compared with an overnight stay (OS). 

METHODS: In a 2-year period, 50 consecutive patients were randomized to an OP group or an OS group. 

RESULTS: In the OP group, 76% of the patients were successfully discharged the same day, without readmissions. Four procedures were converted, and one complication occurred. The patients in the OP group seemed to experience more pain (*p* = 0.009). Satisfaction scores were 8.1 (OP) and 8.8 (OS) (*p* = 0.06). Half of the OP patients and most of the OS patients preferred a clinical admission. The OP treatment cost 600 euros less than OS. 

CONCLUSION: With proper patient selection, laparoscopic gastric banding can be performed safely and at lower cost as an outpatient procedure.

1206.  Watkins BM, Montgomery KF, Ahroni JH,  
Laparoscopic adjustable gastric banding: early experience in 400 consecutive patients in the USA,  
*Obesity Surgery, 15, 2005, 82-87.*  
(LAP-BAND® System Article)

BACKGROUND: Early experience with 400 consecutive patients who underwent laparoscopic adjustable gastric banding (LAGB) is reported. 

METHODS: From Nov 2002 to Aug 2004, prospective data were collected on 400 consecutive LAGB patients and evaluated retrospectively. 

RESULTS: There were 354 (88.5%) females and 46 males (11.5%), with mean age 43.6 years and mean BMI 46.2 kg/m². For outpatients (freestanding ambulatory surgery center), mean OR time was 55.4 min in 208 patients (52%), compared to mean inpatient OR time of 70.5 min in 192 patients. Inpatients had a higher BMI (48.2 +/- 9.3 SD) than outpatients (43.9 +/- 5.7 SD) (*p*<0.0001). Complications occurred in 35 patients (8.8%). These consisted of 9 slipped bands (2.3%) that were surgically repositioned, 6 port problems (1.5%) that were successfully repaired, 17 patients with temporary stoma occlusion (4.3%) that spontaneously resolved, and 2 bowel perforations (0.5%) that required surgical repair and band removal. One patient died of pneumonia 2 weeks after an uneventful procedure. Average 1-year percent excess weight loss (%EWL) in 138 patients was 48.2%. Patients who had < or =50 kg initial excess weight (n=37, 27%) had a significantly higher %EWL (55.2%) at 1 year than patients who had >50 kg initial excess weight (*p*<0.0011). 

CONCLUSIONS: LAGB has been safe and effective thus far for the surgical treatment of morbid obesity, and can be performed as an outpatient in select patients.
BACKGROUND: We report our early experience with 343 consecutive patients who underwent laparoscopic adjustable gastric banding (LAGB) as an outpatient procedure in a self-standing ambulatory surgery center. METHODS: Between Apr 2003 and Feb 2005, data was collected prospectively on 343 consecutive patients who underwent LAGB as an outpatient. RESULTS: There were 305 females (88.9%) and 38 males (11.1%), with mean age 43.5 years (+/-SD 9.9, range 19-67) and mean BMI 44.5 kg/m² (+/-SD 6.1, range 32.7-62.7). Mean operating-room time was 52.9 (+/-16.3) minutes. 10 complications occurred in 9 patients (2.8%): 5 stoma occlusion, 3 port problems requiring port replacement, 1 superficial wound infection, and 1 colon perforation associated with adhesiolysis requiring band removal. 3 patients required admission to the hospital: 1 for nausea, 1 for observation after bloody nasogastric tube drainage, and 1 for dysphagia due to esophageal spasm. All 9 patients with complications recovered fully. 1-year weight loss data was available in 91 patients; mean percent excess weight lost (%EWL) at 1 year was 45.4% (+/-17.6). CONCLUSIONS: LAGB has become an appropriate outpatient procedure in select patients.

1208. Weiner R., Bockhorn H., Wagner D.,
Laparoscopic Gastric Banding for Obesity,
(LAP-BAND® System Article)

No abstract available
OBJECTIVE: To define whether laparoscopic gastric banding or laparoscopic Roux-en-Y gastric bypass represents the better approach to treat patients with morbid obesity. SUMMARY

BACKGROUND DATA: Two techniques, laparoscopic gastric bypass or gastric banding, are currently widely used to treat morbid obesity. Since both procedures offer certain advantages, a strong controversy exists as to which operation should be proposed to these patients. Therefore, data are urgently needed to identify the best therapy. METHODS: Since randomized trials are most likely not feasible because of the highly different invasiveness and irreversibility of these procedures, a matched-pair design of a large prospectively collected database appears to be the best method. Therefore, we used our prospective database including 678 bariatric procedures performed at our institution since 1995. A total of 103 consecutive patients with laparoscopic gastric bypass were randomly matched to 103 patients with laparoscopic gastric banding according to age, body mass index, and gender. RESULTS: Both groups were comparable regarding age, gender, body mass index, excessive weight, fat mass, and comorbidities such as diabetes, heart disease, and hypertension. Feasibility and safety: All gastric banding procedures were performed laparoscopically, and one gastric bypass operation had to be converted to an open procedure. Mean operating time was 145 minutes for gastric banding and 190 minutes for gastric bypass (P < 0.001). Hospital stay was 3.3 days for gastric banding and 8.4 days for gastric bypass. The incidence of early postoperative complications was not significantly different, but late complications were significantly more frequent in the gastric banding group (pouch dilatation). There was no mortality in both groups. Efficiency: Body mass index decreased from 48.0 to 36.8 kg/m² in the gastric banding group and from 47.8 to 31.9 kg/m² in the gastric bypass group within 2 years of surgery. These differences became significant from the first postoperative month until the end of the follow-up (24 months). The gastric bypass procedure achieved a significantly better reduction of comorbidities. CONCLUSIONS: Laparoscopic gastric banding and laparoscopic gastric bypass are feasible and safe. Pouch dilatations after gastric banding are responsible for more late complications compared with the gastric bypass. Laparoscopic gastric bypass offers a significant advantage regarding weight loss and reduction of comorbidities after surgery. Therefore, in our hands, laparoscopic Roux-en-Y gastric bypass appears to be the therapy of choice.
Morbid obesity is a serious disease that is responsible for several comorbid conditions. Body mass indices > 40 require surgical procedures if diet programs fail. Laparoscopic adjustable gastric banding (LAGB), a more recently introduced gastric restrictive procedure, was designed to be a minimally invasive and reversible operation. 184 patients (164 women, 20 men) with a mean body mass index of 47.8 kg/m2 (range 36-79) were operated on. All patients had been excessively overweight for > 5 years. Each patient was given general anesthesia, and an adjustable LAP-BAND was implanted laparoscopically. The pouch size was 15 ml in all cases; and 3-4 sutures were placed to prevent dislocation. The conversion rate was 0%. The median operating time was 65 min (range 45-190). The mortality was 0%. The mean hospital stay was 5 days (range 4-6). The mean excess weight loss was 16% in 4 weeks, 23% in 3 months, 31% in 6 months, 58% in 1 year, and 87% in 2 years. The patient satisfaction index was 97.6%. Once a surgeon has acquired the necessary laparoscopic surgical experience, LAGB is a feasible, safe, and simple procedure with excellent postoperative results. LAGB does not permanently modify the anatomy of the stomach and maintains the natural continuity of the alimentary tract, while at the same time ensuring a steady weight reduction in morbidly obese patients. The fact that the gastric band can be applied laparoscopically is a significant advantage in this group of high-risk patients, who have less pain, faster postoperative recovery, more rapid return to normal activities, fewer wound infections, fewer hernia problems, and better cosmetic results. The rate of postoperative complications is approximately 9%. In 1.1% of patients, erosion occurred, and in 2.2%, slippage of the band. The rate of port-related complications was 3.2%. Reoperations were necessary in 6.4% of the patients.
1211. Weiner R., Gutberlet H., Bockhorn H.,
Preparation of Extremely Obese Patients for Laparoscopic Gastric Banding by Gastric Balloon Therapy,
(LAP-BAND® System Article)

BACKGROUND: In super, super obese patients (body mass index [BMI] >60), especially those with extreme intra-abdominal fat deposition, the technical difficulties in laparoscopic procedures increase. The purpose of this study was to evaluate whether gastric balloon therapy (GBT) can improve the operative conditions for laparoscopic adjustable gastric banding (LAGB) in extremely obese patients.

MATERIALS AND METHODS: From April 1995 to August 1998, 196 LAGBs were performed. In 15 patients (7 female and 8 male), median age 38.8 years (range 17-54), who had been selected as suitable candidates for bariatric surgery, preoperative GBT was studied. Fourteen patients were extremely obese (BMI 60.2 kg/m² [range 58-72]). One 17-year-old boy with BMI 46.6 kg/m² was also treated. The BioEnterics Intragastric Balloon (BIB) was used. The placement, the volume modification, and the removal of the BIB were performed endoscopically. Close follow-up was possible in 14 patients. After balloon removal, 13 patients underwent LAGB.

RESULTS: In 14 of 15 cases, GBT was successful. There was only one balloon dysfunction. The mean weight loss was 18.1 kg, and the median duration of balloon therapy was 16.8 weeks. After balloon removal, body weight started to increase.

CONCLUSIONS: In our experience, the gastric balloon can improve the conditions for laparoscopic surgery in super and in super, super obese patients. There was no conversion to open surgery. The effect of weight loss is much less than immediately after LAGB. However, after failure of all conservative treatments to reduce the preoperative body weight, the GBT seems to be the last possibility.

1212. Weiner R., Wagner D., Bockhorn H.,
A New Technical Approach for Laparoscopic Gastric Banding to Prevent Post-Operative Slippage,
(LAP-BAND® System Congress Presentation Abstract)

1213. Weiner R., Wagner D., Datz M., Bockhorn H.,
Quality of Life Outcome after Laparoscopic Gastric Banding,
(LAP-BAND® System Congress Presentation Abstract)

1214. Weiner R., Wagner D., Engert R.,
Comparison of Different Techniques of Laparoscopic Placement of Adjustable Gastric Bands,
(LAP-BAND® System Congress Presentation Abstract)
1215. Weiner R., Bockhorn H., Rosenthal R., Wagner D.,
A Prospective Randomized Trial of Different Laparoscopic Gastric Banding Techniques
for Morbid Obesity,
Surgical Endoscopy, 15, 2001, 63-68.
(LAP-BAND® System Article)

BACKGROUND: Slippage of the stomach is the most common postoperative complication after laparoscopic adjustable silicone gastric banding (LASGB) for morbid obesity. Retrogastric placement (RGP) of the band through the lesser sac can cause posterior slippage. Incomplete suturing often is responsible for anterior slippage. A randomized prospective study was constructed to determine whether laparoscopic esophagogastric placement (EGP) is associated with a lower incidence of postoperative slippage and pouch dilation than RGP. METHODS: Morbid obese patients presenting for LASGB were randomized to undergo either an EGP (n = 50) or an RGP (n = 51). Patients were blinded to which procedure they underwent, and follow-up date were obtained by a blinded independent investigator. Standardized clinical and radiologic controls were used to assess pouch enlargement and slippage. RESULTS: Operating time was similar for the two procedures (54.5 min for EGP vs 58 min for RGP). There was no significant difference in postoperative weight loss (34 kg after EGP vs 37 kg after RGP within 12 months), esophagus dilation, or postoperative quality of life. There were two postoperative slippages and one pouch dilation in the RGP group and no postoperative complication in the EGP group. CONCLUSIONS: The placement of a LAP-BAND adjustable gastric banding system by the EGP technique is safe and results in a lower frequency of postoperative complications than its placement by the RGP technique. Clear anatomic landmarks are a benefit to education and to the learning curve for LASGB.

1216. Weiner R., Engert R., Winterberg U., Weiner S., Wagner D.,
The First 100 Laparoscopic Gastric Bandings in 1994 -1995: What is the Outcome in 2002?
Obesity Surgery, 12, 2002, 467.
(LAP-BAND® System Congress Presentation Abstract)

1217. Weiner S., Engert R., Winterberg U., Weiner R.,
Preliminary Data in Quality of Life After Weight Loss Surgery in a Prospective Randomized Study Comparing Intragastric Balloon, Gastric Bypass, Gastric Banding and BPDDS,
Obesity Surgery, 12, 2002, 511.
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: Laparoscopic adjustable gastric banding (LAGB) has been our choice operation for morbid obesity since 1994. Despite a long list of publications about the LAGB during recent years, the evidence with regard to long-term weight loss after LAGB has been rather sparse. The outcome of the first 100 patients and the total number of 984 LAGB procedures were evaluated. METHODS: 984 consecutive patients (82.5% female) underwent LAGB. Initial body weight was 132.2 +/- 23.9 SD kg and body mass index (BMI) was 46.8 +/- 7.2 kg/m(2). Mean age was 37.9 (18-65). Retrogastric placement was performed in 577 patients up to June 1998. Thereafter, the pars flaccida to perigastric (two-step technique) was used in the following 407 patients. RESULTS: Mortality and conversion rates were 0. Follow-up of the first 100 patients has been 97% and ranges in the following years between 95% and 100% (mean 97.2%). Median follow-up of the first 100 patients who were available for follow-up was 98.9 months (8.24 years). Median follow-up of all patients was 55.5 months (range 99-1). Early complications were 1 gastric perforation after previous hiatal surgery and 1 gastric slippage (band was removed). All complications were seen during the first 100 procedures. Late complications of the first 100 cases included 17 slippages requiring reinterventions during the following years; total rate of slippage decreased later to 3.7%. Mean excess weight loss was 59.3% after 8 years, if patients with band loss are excluded. BMI dropped from 46.8 to 32.3 kg/m(2). 5 patients of the first 100 LAGB had the band removed, followed by weight gain; 3 of the 5 patients underwent laparoscopic Roux-en-Y gastric bypass (LRYGBP) with successful weight loss after the redo-surgery. 14 patients were switched to a "banded" LRYGBP and 2 patients to a LRYGBP during 2001-2002. The quality of life indices were still improved in 82% of the first 100 patients. The percentages of good and excellent results were at the highest level at 2 years after LAGB (92%). CONCLUSIONS: LAGB is safe, with a lower complication rate than other bariatric operations. Reoperations can be performed laparoscopically with low morbidity and short hospitalizations. The LAGB seems to be the basic bariatric procedure, which can be switched laparoscopically to combined bariatric procedures if treatment fails. After the learning curve of the surgeon, results are markedly improved. On the basis of 8 years long-term follow-up, it is an effective procedure.

REFERENCE:
1219. Weiner R., Blanco-Engert R., Weiner S., Pomhoff L.,
A Prospective Comparative Study on the Outcome of Obese Patients after Laparoscopic Adjustable Gastric Banding, Roux-en-Y-Gastric Bypass and Biliopancreatic Diversion With Duodenal Switch, Performed by a Single Surgeon, Obesity Surgery, 13, 2003, 522.
(LAP-BAND® System Congress Presentation Abstract)
The prevalence of obesity in the United States (U.S.) is increasing to epidemic proportions. Currently, more than 60% of Americans and 51% of Germans are overweight. Whereas a variety of medications are available for treatment of obesity, none results in the long-term loss of more than 10% of body weight. The current standard for treatment of severe obesity, defined as a body mass index (BMI) of greater than 35 kg/m2 with comorbidities and generally greater than 40 kg/m2, is surgical. Several surgical procedures are currently available, including gastric bypass, biliopancreatic diversion (BPD) with duodenal switch, and the adjustable gastric band. These operations may be performed using laparoscopic surgical techniques to minimize perioperative morbidity and postoperative recovery time. To optimize the outcome of this type of procedure, bariatric surgery should be performed on carefully selected patients, in bariatric centers specially equipped to care for the obese, within a broadly based, multidisciplinary setting that provides lifelong postoperative care.
1224. Weiss H., Nehoda H., Labeck B., Lanthaler M., Aigner F.,
Laparoscopic Gastric Banding versus Laparoscopic Cholecystectomy: Post-Operative Pain Assessment,
(LAP-BAND® System Congress Presentation Abstract)

Treatment of Morbid Obesity with Laparoscopic Adjustable Gastric Banding Affects Esophageal Motility,
(LAP-BAND® System Article)

BACKGROUND: Laparoscopic adjustable gastric banding has become the preferred method for the surgical treatment of morbid obesity in Europe. It is not known whether this procedure may induce gastroesophageal reflux and whether it may impair esophageal peristalsis. METHODS: Laparoscopic adjustable gastric banding (Swedish band) was performed in 43 patients (median body mass index [BMI] 42.5 kg/m²). Preoperatively and 6 months postoperatively all patients were assessed for reflux symptoms. In addition all patients underwent preoperative and postoperative endoscopy, esophageal barium studies and manometry, and 24-hour esophageal pH-monitoring. RESULTS: The median BMI dropped significantly to 33.1 kg/m² (P <0.05). Preoperatively 12 patients complained of reflux symptoms. Mild esophagitis was detected in 10 patients. Postoperatively only 1 patient complained of heartburn and mild esophagitis was diagnosed in another patient. None of the patients had dysphagia. Preoperatively a defective LES and pathologic pH-testing were found in 9 and 15 patients, respectively. These parameters were normal in all of the patients postoperatively. Postoperatively there was significant impairment of LES relaxation and deterioration of esophageal peristalsis with dilatation of the esophagus in some of the patients. CONCLUSION: Laparoscopic adjustable gastric banding provides a sufficient antireflux barrier and therefore prevents pathologic gastroesophageal reflux. However, it impairs relaxation of the LES, leading to weak esophageal peristalsis.

1226. Weiss H., Nehoda H., Labeck B., Peer R., Aigner F.,
Gastroscopic Band Removal After Intragastric Migration of Adjustable Gastric Band: A New Minimal Invasive Technique (Swedish Band),
(LAP-BAND® System Congress Presentation Abstract)
BACKGROUND: We evaluated outcome of pregnancies of morbidly obese women who are within the first 2 years after laparoscopic adjustable gastric banding. METHODS: 215 morbidly obese women of reproductive potential (age 18-45 years), who had agreed to remain on reliable contraceptives for 2 years after surgery, were retrospectively analyzed following bariatric surgery. RESULTS: 7 unexpected pregnancies were observed. 5 pregnancies were full-term (3 vaginal and 2 cesarean deliveries). The birth weights ranged from 2110 g to 3860 g. 2 women had first trimester miscarriages. All gastric bands were completely decompressed due to nausea and vomiting, resulting in further weight gain. 2 serious band complications were observed (1 intragastric band migration and 1 balloon defect), which required re-operation. CONCLUSIONS: Pregnancy in morbidly obese women soon after adjustable gastric banding may occur unexpectedly during a period of weight loss. Prophylactic fluid removal from the band eliminates the efficacy of the obesity treatment. Moreover, this cohort shows an increased incidence of spontaneous abortions and band-related complications.
BACKGROUND: Adjustable gastric banding and esophagogastric banding may affect the function of the lower esophageal sphincter (LES) and esophageal motility in the long-term. Both methods were evaluated in a prospective randomized trial. MATERIALS AND METHODS: Group 1 comprised 28 patients who underwent laparoscopic adjustable gastric banding and Group 2 consisted of 24 patients in whom adjustable esophagogastric banding was performed. Swedish Adjustable Gastric Bands were used in all patients. Body mass index (BMI), perioperative complications and reflux symptoms were assessed and upper gastrointestinal endoscopy, esophageal barium studies, esophageal manometry and 24-hour esophageal pH-monitoring were performed pre- and postoperatively. 18 (Group 1) and 14 (Group 2) patients completed the postoperative follow-up procedure after a median of 23 and 24 months, respectively. RESULTS: Postoperatively the median BMI dropped equally in both groups. Perioperative complications requiring re-intervention were significantly more frequent in Group 2 than in Group 1. Heartburn improved equally in both groups following surgery; however, regurgitation and esophagitis were significantly more common in Group 2 than in Group 1. 24-hour esophageal pH-monitoring and the LES resting pressure improved equally in both groups, but there was a significant impairment of the LES relaxation and the esophageal peristalsis, which was more pronounced in Group 2 than in Group 1. This caused significant esophageal stasis as shown by barium studies. CONCLUSIONS: Both techniques, gastric and esophagogastric banding, provide effective weight loss in morbidly obese patients but affect the esophagogastric junction. Although both procedures strengthen the antireflux-barrier, LES relaxation becomes impaired, thus promoting esophageal dilatation and esophageal stasis. This is more pronounced following esophagogastric banding than following the classic procedure. Since the esophagogastric banding results in more complications requiring re-intervention, we believe that this procedure should not be used any more.
BACKGROUND: This paper reports the outcome of surgical revision for complications following laparoscopic placement of an adjustable silicone gastric band (AGB) to treat morbid obesity. METHODS: Seventy-three (19.1 per cent) of 382 patients who underwent laparoscopic AGB placement between January 1996 and March 2001 presented with complications within 6 years after operation. Revision was carried out with the intention of reinstating the functional device in all patients. RESULTS: Successful surgical revision or gradual balloon deflation was performed in 53 patients (29 port-related complications, 14 pouch dilatations, 12 band leakages, three oesophageal dilatations, two symptomatic hernias, one late migration, one intracerebral bleed). Of these patients, 51 (96.2 per cent) had a successful outcome according to the Bariatric Analysis and Reporting Outcome System following significant additional postinterventional weight loss. AGB removal was carried out in 20 patients (13 early or late migrations, five pouch dilatations, three port-related complications, two psychiatric disorders, one band leakage). The final failure rate for complicated AGB procedures was 30.1 per cent. CONCLUSION: AGB placement is associated with a variety of complications. In most cases surgical complications can be treated with minimally invasive surgery, which should allow further weight loss and improvement of quality of life during long-term follow-up. Alternative bariatric procedures should be reserved for patients with poor outcome after surgical revision of the AGB. Copyright 2003 British Journal of Surgery Society Ltd. Published by John Wiley & Sons, Ltd.
BACKGROUND: Our aim was to determine the relationship between patient level characteristics and in-hospital postoperative complications among obese adults who underwent a bariatric procedure in New York state in 2003. Understanding patient level factors that predict or are associated with adverse outcomes among bariatric surgery patients can help to identify patients who need to be monitored particularly carefully. METHODS: Using New York’s inpatient discharge database, we identified adults who underwent a bariatric operation between January 1, 2003 and December 31, 2003 (n=7,868). Following preliminary descriptive analyses, a stepwise logistic regression model was constructed to identify significant patient level predictors of postoperative complications. Patient level risk factors included age, gender, race/ethnicity, and 24 co-morbid conditions. RESULTS: 6.8% of adults undergoing a bariatric procedure in New York in 2003 experienced one or more of the postoperative complications included in the study. Respiratory complications were the most common type of complication, with >2% of patients experiencing pneumonia, collapsed lung, and/or respiratory complications secondary to the operation. Multivariate analyses by stepwise logistic regression identified age > or =50 years, male gender, Hispanic ethnicity, congestive heart failure, cardiac arrhythmia, other neurological disorders, and peptic ulcer as predictors of complications. CONCLUSIONS: Certain subpopulations of persons undergoing bariatric procedures may be at increased risk for adverse events and will need to be monitored carefully.

1231. Widhalm K., Draskovitz A., Prager G.,
Laparoscopic Gastric Banding in Morbidly Obese Patients,
(LAP-BAND® System Congress Presentation Abstract)
1232. Widhalm K., Dietrich S., Prager G.,
Adjustable gastric banding surgery in morbidly obese adolescents: experiences with eight patients,
(LAP-BAND® System Article)

BACKGROUND: Excessive obesity in children and adolescents is increasing in western countries all over the world. Treatment of those young subjects is extremely difficult. In cases who do not respond in any regard to conservative treatment regimens, it is worthwhile to also offer bariatric surgical procedures. METHODS: In eight young subjects with a mean age of 16.0+/-1.3 y, mean BMI 49.1+/-5.2 who were totally resistant against different therapeutic regimens, we performed adjustable laparoscopic banding surgery. Psychological tests were carried out to find out if there were any psychological disturbances. In all patients, the depression inventory for adolescents (DIKJ) and clinical interviews were carried out. RESULTS: No complications were seen; mean follow-up of 10.5+/-6.0 months showed a weight loss of 25+/-6.5 kg. All adolescents felt for the first time that it was possible to lose weight and were very happy about their body attitude. They were able to adhere to a strict dietary regimen, which allowed them to eat without any hunger problems. It was observed that most of these patients have depressive symptoms and a very low self-esteem. Some patients suffer from nervous anxiety, poor peer acceptance, less athletic competence or forms of victimisation too. CONCLUSIONS: From these results, we conclude that laparoscopic gastric banding surgery seems to be a method that could be offered to morbidly obese adolescents. However, long-term follow-up is essential and psychological problems should be carefully studied.

1233. White N., Gibbs K., Goodwin A., Teixeira J.,
Gastric Bezoar Complicating Laparoscopic Adjustable Gastric Banding, and Review of Literature,
*Obesity Surgery, 13, 2003, 948-950.*
(LAP-BAND® System Article)

Gastric bezoars may be formed in the normal stomach as a result of foreign body consecrations of various objects with inability to pass through the pylorus. Classically, most bezoars occur as a complication of gastric surgery which creates a low acid environment, decreased peristalsis, and abnormal pyloric function. Bariatric surgery has been associated with a low incidence of bezoar formation. However, to date there has been no documentation of bezoars occurring after laparoscopic adjustable gastric banding, which is one of the surgical options available for the treatment of morbid obesity. We report a case of a gastric bezoar that occurred 8 months after gastric banding.

1234. Widhalm K., Draskovitz A., Prager G.,
Laparoscopic gastric banding in morbidly obese adolescents,
(LAP-BAND® System Abstract)
1235. Wiesner, W., Schöb O., Hauser R., Hauser M.,
Adjustable Laparoscopic Gastric Banding in Patients with Morbid Obesity:
Radiographic Management, Results, and Post-Operative Complications,
Radiology, 216, 2, 2000, 389-394.
(LAP-BAND® System Article)

PURPOSE: To determine the role of radiographic assessment in patients who underwent an adjustable laparoscopic gastric banding (ALGB) for the treatment of morbid obesity, and to evaluate the frequency and type of postoperative complications. MATERIALS AND METHODS: From September 1995 to March 1998, 98 consecutive patients (18 men, 80 women; mean age, 39 years; age range, 22-62 years) with morbid obesity (mean body weight, 132 kg; mean body mass index, 47.1 kg/m²) underwent ALGB. In all patients, fluoroscopy was performed postoperatively to confirm band position and to exclude perforation and at 6-8 weeks later to measure and adjust the stoma between the pouch and stomach for optimal weight loss. All patients underwent another examination 12 months postoperatively, whereas patients with unsatisfactory weight loss or patients suspected of having complications were examined earlier and on several occasions. RESULTS: Port puncture was feasible in all cases, and stomal adjustments could easily be repeated. Absolute (ie, total) weight loss after 1 year ranged from 8.8% to 39.2% (mean, 18.3%). Twenty patients showed unsatisfactory weight loss. No early complications occurred. Late complications occurred in 34 patients and included pouch dilatation (concentric or eccentric with posterior slippage), eccentric band herniation, band penetration, disconnection, axial pouch herniation, and port-site infection. CONCLUSION: ALGB is an effective method in the treatment of morbid obesity. Radiographic assessments are crucial in the management of weight loss and detection of postoperative complications.

1236. Wiesner, W., Schöb O., Hauser R., Hauser M.,
Reprinted Abstract of Adjustable Laparoscopic Gastric Banding in Patients with Morbid Obesity: Radiographic Management, Results, and Post-Operative Complications,
(LAP-BAND® System Congress Presentation Abstract)
PURPOSE: To describe two different types of band dislocation that may occur in morbidly obese patients following adjustable laparoscopic gastric banding (ALGB) with the LAP-BAND.

MATERIALS AND METHODS: 170 morbidly obese patients were treated with an LAP-BAND at our institution. In the first 20 patients the band was positioned transbursally, which means that the lesser sac is penetrated during laparoscopic band implantation. In the following 150 patients the operation technique was changed to suprabursal band positioning where the lesser sac is not penetrated. Plain radiographs and single contrast studies of all patients who developed band instability in the follow-up were analyzed retrospectively and compared to the clinical and intraoperative findings and to the operation technique used. RESULTS: Over a time period of 3.5 years 'posterior slippage' occurred in all 20 patients with transbursal band placement, but it never occurred after suprabursal band placement. Never the less 4 patients with suprabursal band placement presented with an eccentric pouch dilatation, secondary to 'anterior slippage' after the seromuscular stitches had burst on the anterior and superior surface of the band. All these patients presented with food intolerance and all of them had to be reoperated. The radiographic findings were pathognomonic for each type of band dislocation. CONCLUSION: Band dislocation is a known major complication that may occur following ALGB and it may present in two different forms. While 'posterior slippage' can be avoided if the band is placed suprabursally, 'anterior slippage' may still occur. It is important to be familiar with both types of band dislocation since they require early detection and surgical band replacement or band refixation.
The goal of this study was to prove that adjustable laparoscopic gastric banding (LAP-BAND) is semipermeable and that luminal adjustment with saline leads to spontaneous fluid loss, luminal widening, and effect loss which makes repeated readjustments necessary. In 64 patients stoma adjustment was performed with saline according to the guidelines of the manufacturer (group 1). In 32 patients hyperosmolar contrast material was used for stoma readjustments with the intention to detect a system leakage after spontaneous fluid loss and spontaneous luminal widening was observed (group 2). After spontaneous luminal narrowing had occurred in group 2, all patients from group 2 and all additional patients (n = 148) underwent stoma (re-) adjustment with iso-osmolar contrast material (group 3). Spontaneous fluid changes which led to spontaneous changes of the luminal width were then analyzed for the different filling substances in each group. Fifty-two patients from group 1 presented with effect loss because a spontaneous luminal widening had occurred secondary to a fluid loss of 0.1-0.2 ml/month. All 32 patients from group 2 presented with increasing obstruction and food intolerance because a spontaneous luminal narrowing had occurred secondary to a spontaneous fluid gain of 0.1-0.3 ml/month. In our patients from group 3, where stoma adjustment was performed with iso-osmolar contrast material, no spontaneous fluid changes were observed and luminal width/degree of obstruction did not change. The LAP-BAND is semipermeable. Stoma adjustment should not be performed with saline in order to avoid spontaneous luminal widening and the need for repeated readjustments. Stoma adjustments with hyperosmolar contrast material are clearly contraindicated since osmotic fluid gain leads to increasing obstruction. Stoma adjustments should be performed using iso-osmolar filling media which provide a stable luminal obstruction.
BACKGROUND: The complication of pseudo-achalasia may occur after laparoscopic adjustable
gastric banding (LAGB) in patients with normal band position and normal stomal width. We
hypothesized that this complication occurs especially in patients with preexisting insufficiency of the
lower esophageal sphincter (LES), who show poor compliance secondary to lacking the sensation of
satiety and who therefore also have insufficient weight loss at follow-up. METHODS: Early and late
postoperative barium meal studies of 120 LAGB patients were retrospectively analyzed to identify
patients who developed esophageal widening and dysmotility despite normal band position and
normal stomal width. Results were compared with preoperative endoscopies, clinical findings, each
patient's compliance with dietary instructions and postoperative weight loss. RESULTS: 9/120
patients developed pouch dilatation, esophageal widening and esophageal dysmotility as a late
complication, despite normal band position and normal stomal width. All these patients had shown
preexisting insufficiency of their LES endoscopically. They all showed bad compliance with dietary
instruction, and they all abused their distal esophagus as an additional pouch. 7 of these patients
presented with insufficient weight loss at follow-up, whereas of 3 other patients with pre-existing
LES insufficiency who had shown good compliance, only 1 showed insufficient weight loss.
Insufficient weight loss after 1 year was significantly more common in patients with pre-existing LES
insufficiency (8/12 patients, 67%) than in patients with a competent LES (26/108 patients, 24%).
CONCLUSION: Patients with pre-existing LES insufficiency appear to be at risk for pouch dilatation
and esophageal decompensation despite normal band position and normal stomal width. These
patients are prone to show lack of satiety and poor compliance with dietary instruction, use of their
lower esophagus as additional space for food, and tend to have insufficient weight loss. Preoperative
manometry should be used to identify such patients, where the indication for gastric banding should
be discussed very critically.

In 20 patients with morbid obesity a laparoscopic silicon gastric banding was installed using a LAP-
BAND. All patients were examined postoperatively with water-soluble oral contrast material
according to the usual protocol. 8 weeks after the operation a second control with thickened barium
sulfate was added to measure and adjust the width of the silicon band. There were no early
postoperative complications. But in the follow-up three patients presented with a pathologic gastric
pouch-dilatation. This severe complication, which can have different etiologies, requires early
detection and specific therapy.
BACKGROUND: Slippage occurs after 2-18% of gastric bandings performed by the perigastric technique (PGT). We investigated the slippage-rate before and after the introduction of the pars flaccida technique (PFT) and the 11-cm Lap-Band, and the long-term results of the re-operated patients. METHODS: Between Dec 1996 and Feb 2004, 360 patients with a mean BMI of 44 kg/m2 were operated. The PGT (n=168) and PFT9.75 (n=15) groups received the 9.75-cm Lap-Band, and the PFT11 group (n=177) received the new 11-cm Lap-Band. Follow-up rate was 99%. RESULTS: Slippage occurred in a total of 31 patients from all groups (PGT, n=28, or 17%; PFT9.75, n=1, or 7%; PFT11, n=2, or 1%). Average yearly re-operation rate for slippage in the first 3 years postoperatively was 3.8%, 2.2% and 0.9%, respectively. Laparoscopic re-banding was necessary for posterior (n=19) or lateral (n=12) slippage. The late postoperative course after re-banding was: uneventful 58%, weight regain 35% and/or esophageal motility disorder 23%, secondary band intolerance 20%, and one persistent posterior slippage. 8 patients (26%) needed biliopancreatic diversion. CONCLUSION: Since the introduction of the PFT and the 11-cm Lap-Band, we observed a significant reduction in slippage rate and no posterior slippage. Re-banding had a less favorable long-term result than did first-procedure banding.
OBJECTIVE. To evaluate the efficacy of laparoscopic adjustable gastric banding in the management of morbid obesity in a cohort of Chinese patients. DESIGN. Cohort study. SETTING. University teaching hospital, Hong Kong. PATIENTS. From August 2002 to September 2003, 10 patients (6 male, 4 female) with a median age of 34 years (range, 23-48 years) underwent laparoscopic adjustable gastric banding to treat morbid obesity. Considerable co-existing diseases were present in 90% of the cases. We instituted a team approach that allowed every patient to see our dietitian, physician, psychiatrist (if necessary), and surgeon prior to deciding on the procedure to be used. MAIN OUTCOME MEASURES. Excessive body weight loss, quality-of-life score (SF36), and co-morbidities improvement. RESULTS. The 10 patients had a median weight of 127 kg (range, 115-196 kg) and median body mass index of 47 kg/m^2 (range, 38-67 kg/m^2). The operation was successful in all patients with a median operating time of 110 minutes (range, 75-240 minutes). The median hospital stay was 3 days (range, 3-4 days) and three of the patients required overnight observation in the intensive care unit because of severe sleep apnoea and asthma. The median follow-up period was 12 months (range, 1-18 months). The mean weight loss at 6, 12, and 18 months was 19.3, 22.4, and 25.9 kg, respectively. Mean percentage of excessive weight loss at 6, 12, and 18 months was 34.9%, 36.5%, and 40.5%, respectively. Unsatisfactory weight loss (<20 kg) occurred in three patients because of poor dietary compliance and non-follow-up. Surgery also considerably improved the patients’ co-morbidities (hypertension, diabetes, and obstructive sleep apnoea) and the quality of life. CONCLUSION. In the short term, laparoscopic adjustable gastric banding is certainly an effective procedure for morbid obesity, which results in a substantial weight loss and improvement of co-existing morbidities. Longer follow-up will show whether this weight loss is maintainable.
Intra-abdominal abscess in the course of intragastric migration of an adjustable gastric band: a potentially life-threatening complication,
Obesity Surgery, 16, 2006, 102-104
(LAP-BAND® System Article)

Intragastric band migration is a potential complication of adjustable gastric banding. A 39-year-old morbidly obese female underwent laparoscopic adjustable gastric banding. After uneventful postoperative follow-up of 4 years, she had slow, steady failure of the restrictive effect, associated with regain of weight. Intragastric band migration was confirmed on GI series, and the patient was admitted to the hospital for revision. The patient presented no symptoms of acute abdomen. Intraoperatively, a huge intra-abdominal abscess was discovered in the epigastric area. The stomach with the band and tubing were involved in the inflammatory process. Labtobacillus acidofilus was found to be the causative organism. Removal of the gastric band with simultaneous resectional gastric bypass was performed. The recovery proceeded with no complications. Intragastric band migration can cause intra-abdominal abscess; thus, we believe that every case of band migration should be treated without delay to avoid further complications.

Obesity in Adolescence – is Surgery a Good Option?
(LAP-BAND® System Congress Presentation Abstract)

The First-Year Experience of Mini-Invasive Bariatric Procedures,
Obesity Surgery, 14, 2004, 469.
(LAP-BAND® System Congress Presentation Abstract)

Patient selection for bariatric surgery – our approach,
(LAP-BAND® System Abstract)
The laparoscopic adjustable gastric band (LAGB) is widely used for treatment of morbid obesity. Band slippage is a well known long-term complication. Herein, we present a patient with band slippage who developed strangulation of the fundus with irreversible necrosis. The chosen surgical solution was minimally invasive. A diagnostic laparoscopy and consequently resection of the necrotic fundus was performed. A postoperative symptomatic left pleural effusion resolved after chest tube insertion. One week later, the patient was discharged with satisfactory results.

BACKGROUND: Gastric banding is a popular operation for the treatment of morbid obesity. However, the procedure itself is not free from complications. Our study describes port disconnection, and our suggested solution. MATERIALS AND METHODS: In 6 of 58 patients who underwent gastric banding, we diagnosed disconnection of the tube from the port and found the tube in the pelvis. This required laparoscopic retrieval and reconnection of the tube. RESULTS: All 6 patients noticed that the moment that the tube disconnected from the port, they felt sharp right abdominal pain. They all sought medical aid, and abdominal plain films showed the tubing in the pelvis. The 6 patients underwent a second laparoscopic procedure, during which the tube was found in the lower abdomen. A grasper was passed through the endoscope, and the tube was pulled out and reconnected to the port. 2 of the 6 patients required complete change of the port to a new one. CONCLUSIONS: Disconnection of the tubing from the port must be considered in patients who previously underwent gastric banding and suffer from acute abdominal pain.

A 20-year-old female, who had suffered from morbid obesity with a BMI of 41.2, was admitted 3 years after undergoing laparoscopic gastric banding. 3 days before her present admission, she began suffering from abdominal pain without vomiting. On admission investigation, gastric prolapse was diagnosed with complete obstruction of passage through the band. Emergency laparoscopy was performed, which showed devitalization of the stomach above the band. At the operation, the band was removed, and conservative treatment was begun with nasogastric aspiration, total parenteral nutrition, and close observation.
1255. Zacharoulis D., Roy-Chadhury S., Dobbins B., Kumar H., Goutzamani E., Boyle C., Sedman P., Royston C.,
Laparoscopic Adjustable Banding: Surgical and Radiological Approach,
(LAP-BAND® System Article)

BACKGROUND: The laparoscopically-placed adjustable gastric band (LAGB) is a minimally invasive, adjustable and completely reversible operation. We report 3 years experience. METHODS: Between May 1998 and January 2001, we operated on a consecutive series of 50 patients (8 male/42 female). Mean age of patients was 37 years (30-48). Mean preoperative BMI was 43 kg/m2 (range 38-55). RESULTS: Mean operative time was 130 minutes (range 75-150), and the conversion rate was 6%. Mean hospital stay was 2.8 days (range 2-10). Postoperatively 7/50 (14%) of patients had dysphagia and subsequently 2 (4%) developed gastric pouch dilatation. 2/50 (4%) had non-fatal pulmonary embolism and 2/50 (4%) developed gastroesophageal reflux. Overall morbidity was 32%. There has been no mortality. 6 weeks postoperatively, patients had adjustment of the band by the radiologists. Follow-up has been up to 30 months. Mean excess weight loss at 6 months was 30% (range 26-35%, N = 50), at 12 months 52% (range 44-55%, N = 42), at 24 months 60% (range 55-65%, N = 14) and at 30 months 62% (range 58-64%, N = 8). 5 patients have reached their ideal body weight. CONCLUSIONS: LAGB is safe and effective, even early in the learning curve. The radiologist plays a distinct role. A multi-disciplinary team approach is essential for optimal results. Long-term results are pending.

1256. Zalles M.,
Bariatric Surgery in Bolivia,
Obesity Surgery, 15, 2005, 726.
(LAP-BAND® System Abstract)
*Obesity Surgery, 16, 2006, 132-136*
(LAP-BAND® System Article)

**BACKGROUND:** The major long-term complication of laparoscopic adjustable gastric banding (LAGB) is dilatation of the gastric pouch, that is reported with a frequency ranging from 1 to 25%, and often requires removal of the band. In addition to the usual recommendations of bariatric surgery centers and dietetic advice to prevent this complication, over the last 4 years we introduced a technical modification of the procedure.

**METHODS:** From Nov 1993 to Dec 2004, 684 morbidly obese patients underwent adjustable gastric banding, 83 patients by open surgery and 601 patients by laparoscopy. The first 323 patients (group A) were operated by the perigastric approach, and 57 patients (group B) were operated by the pars flaccida approach. Since Dec 2000, 304 patients (group C) were operated with a modified pars flaccida technique, which consisted in suturing the gastric lesser curvature below the band with one or two stitches to the right phrenic crus to secure the band in place.

**RESULTS:** In group A, the most important late complication was irreversible dilatation of the gastric pouch, which occurred in 35 patients (10.8%), and required removal of the band in 30 cases and replacement in 5. In group B, there were 3 pouch dilatations (5.2%). In group C, only 4 dilatations occurred (1.31%), which required 3 band removals and 1 band replacement.

**CONCLUSION:** Dilatation of the gastric pouch appears to be dramatically reduced by our minor technical modification of band placement.

1258. Zappa M, Lattuada E, Mozzi E, Francese M, Antonini I, Radaelli S, Roviaro G,
An Unusual Complication of Gastric Banding: Recurrent Small Bowel Obstruction Caused by the Connecting Tube,
*Obesity Surgery, 16, 2006, 939-941*
(LAP-BAND® System Article)

Laparoscopic adjustable gastric banding (LAGB) is a widely performed surgical procedure for morbid obesity. The application of this mini-invasive approach has given the benefits of shorter hospital stay, less postoperative pain and quicker functional recovery. LAGB complications are related either to the access-port, such as port-site infection or tubing disconnection, or to the band, such as band slippage, pouch dilatation, or intragastric migration. We report a case of recurrent small bowel obstruction caused by the connecting tube around a jejunal loop, in a woman who had undergone LAGB 3 years before. The diagnosis was difficult to establish because the clinical history and examination were non-specific. A 3-dimensional CT scan was needed to explain the cause of the recurrent abdominal pain, and the small bowel loop was freed from the connecting tube at laparoscopy.

1259. Zayed A., Al-Jarallah M., Lepsien G.,
A Safe and Simplified Technique for Laparoscopic Gastric Banding,
*Obesity Surgery, 10, 2000, 315.*
(LAP-BAND® System Congress Presentation Abstract)
1260. Zayed A., Al-Jarallah M.,
Laparoscopic Gastric Banding: Why Changing to Another Technique?
*Obesity Surgery, 11, 2001, 380.*
(LAP-BAND® System Congress Presentation Abstract)

1261. Zayed A., Al-Jarallah M.,
Improving the Results of Laparoscopic Gastric Banding by Using the Retrograde Hooking Technique,
*Obesity Surgery, 13, 2003, 581.*
(LAP-BAND® System Congress Presentation Abstract)

1262. Zeiner M., Hell E.,
Dietary Instructions after ASGB and VBG,
*Obesity Surgery, 9, 1999, 348.*
(LAP-BAND® System Congress Presentation Abstract)

1263. Zengin K., Taskin M., Sakoglu N., Salihoglu Z., Demirolok S., Uzun H.,
Systemic Inflammatory Response after Laparoscopic and Open Application of Adjustable Banding for Morbidly Obese Patients,
*Obesity Surgery, 12, 2002, 276-279.*
(LAP-BAND® System Article)

**BACKGROUND:** Surgical injury induces a systemic inflammatory metabolic-endocrine response that is proportional to the severity of the surgical stress. Compared with the conventional open method, laparoscopic surgery is mini-invasive and has decreased postoperative pain and length of hospitalization. The aim of this study was to investigate the systemic inflammatory response, after laparoscopic and open stoma-adjustable silicone band application, which is thought to be mediated by cytokines. **METHOD:** 30 morbidly obese patients underwent Swedish adjustable gastric banding (SAGB). 15 patients underwent laparoscopic (group 1) and 15 open SAGB (group 2). Mean operative time for the laparoscopic group was 70-110 min and for the laparotomy group 80-120 min. Gallbladders were not removed, and there were no systemic diseases in the patients. The intensity of surgical trauma was evaluated by measurement of metabolic and hormonal responses to the surgery. Plasma levels of C-reactive (CRP), haptoglobin, ceruloplasmin, albumin, transferrin, IL-6, malonic dialdehyde (MDA) and creatinine were measured before and after the operation. **RESULTS:** CRP and IL-6 levels increased during and after laparoscopic and open SAGB. However, postoperative responses were significantly greater after open SAGB (group 2) (p < 0.05). MDA level, an indicator of an oxidative trauma, was elevated in group 1 at the 6th postoperative hour but was significantly higher in group 2 at the 6th and 12th postoperative hours. The results were more significant in group 2 (p < 0.05). There was no statistical difference between groups 1 and 2 in terms of albumin, creatinine, and transferrin levels before and after surgery. **CONCLUSION:** The systemic inflammatory responses after laparoscopic SAGB were significantly reduced compared with those after open SAGB.
1264. Zengin K, Taskin M, Unal E, Salihoglu Z, Demirkiran O.,
Band Erosions Following Adjustable Silicone Gastric Banding (ASGB) in Obesity
Surgery: Our Experience,
(LAP-BAND® System Congress Presentation Abstract)

1265. Zengin K, Sen B, Ozben V, Taskin M,
Detachment of the Connecting Tube from the Port and Migration into Jejunal Wall,
*Obesity Surgery*, 16, 2006, 206-207.
(LAP-BAND® System Article)

After laparoscopic adjustable gastric banding (LAGB), early recognition and treatment of uncommon complications are important. A 36-year-old man who had undergone LAGB presented at our clinic with weight gain of 14 kg during the prior 6 months. During investigation, detachment of the connecting tube from the port and migration of this tube into the jejunal wall were found. The detached port was replaced with a new port, and laparoscopically-assisted jejunorraphy was performed.

1266. Zieren J., Ablassmaier B., Enzweiler C., Muller J.,
Disaster with a New Type of Band for Gastric Banding,
*(Inamed note: Pier Band made by MEDING – replaced with LAP-BAND)*
(LAP-BAND® System and Pier Band Article)

**BACKGROUND:** Laparoscopic gastric banding has become an established therapy for morbid obesity. Typical complications are band dislocation, pouch dilatation and stomach slippage. A new type of adjustable silicone band with eyes for suture fixation was proposed to avoid these complications. The experience with this new kind of band is reported. **METHODS:** Between April 1998 and August 1998, 15 morbidly obese patients were treated by laparoscopic adjustable gastric banding using a new band type (manufactured by MEDING, Heinsberg, Germany). The band was fixed by single sutures using the eyes at each side of the buckle. There were 13 women and 2 men, with mean age 34 (range 21-54) years and mean body-weight 138.6 (range 113-213) kg. **RESULTS:** Intraoperative complications did not occur. Postoperatively 8 patients (53%) had increasing capacity for food intake and 2 (13%) had uncharacteristic abdominal pain. Radiographs revealed band rupture in 13 of 15 patients 3-11 months postoperatively. These patients were operated laparoscopically using a new technique for band change. Now, a Lap-band (BioEnterics, Carpinteria, CA, USA) was inserted and fixed to the ventral stomach with three sutures similar to a ventral fundoplication. Radiographic and clinical follow-up have been uneventful in all patients until now. **CONCLUSION:** This series demonstrated: 1) the importance of clinical follow-up; 2) a material defect of a new band type; and 3) development of a new laparoscopic technique for band change.
1267. Zieren J., Menenakos C., Paul M., Muller J.,
Prevention of Catheter Disconnection After Laparoscopic Adjustable Gastric Banding,
(LAP-BAND® System Article)

In a consecutive series of 138 laparoscopic adjustable gastric bandings (LAGB) we observed
disconnection of the gastric band catheter at the site of the port connector in 17 patients. During
operative revision we established a new port position with a minimal distance of 10 cm between the
connector and the entrance of the catheter to the abdominal cavity. Using this technique no
complications and no catheter disruptions occurred during a median followup period of 25 months.

1268. Zijlstra H., Larsen JK, van Ramshorst B., Geenen R.,
The association between weight loss and self-regulation cognitions before and after
laparoscopic adjustable gastric banding for morbid obesity: a longitudinal study,
*Obesity Surgery, 15, 2005, 929.*
(LAP-BAND® System Abstract)

1269. Zijlstra H, Larsen J, van Ramshorst B, Geenen R,
The Association between Weight Loss and Self-Regulation Cognitions Before and After
Laparoscopic Adjustable Gastric Banding for Obesity: A Longitudinal Study,
*Surgery (St. Louis), Volume 139, Number 3, 2006, 334-339.*
(LAP-BAND® System Article)

BACKGROUND: The outcome of restrictive types of bariatric operation might be affected by
cognitions (beliefs) about one's capability to regulate eating behavior. Our aim was to examine the
association between weight loss and self-regulation cognitions before and after laparoscopic
adjustable gastric banding for morbid obesity or severe obesity with serious comorbidity.
METHODS: Six months before and 1 year after the operation, the Obesity Cognition Questionnaire
and an eating behavior self-efficacy scale were completed by 77 patients: 68 women, 9 men, mean age
43 years (range, 27-62 y), mean preoperative body mass index 47 kg/m(2) (range, 36-63 kg/m(2)).
Pearson correlations were calculated and t tests and effect size calculations were used to examine
preoperative to postoperative changes of self-regulation cognitions. RESULTS: The mean body mass
index 1 year after the operation was 38 kg/m(2) (range, 25-55 kg/m(2)). Self-regulation cognitions did not predict weight outcome, but the self-regulation cognitions time-line (ie, the attitude about the
prognosis of one's overweight, P < .001), psychologic consequences (P = .002), and self-efficacy (P <
.001) changed in a positive way 1 year after the operation. CONCLUSIONS: Intake screening of self-
regulation cognitions is of little use for prediction of short-term weight outcome after bariatric
operation. It is suggested that beliefs about one's capability to control eating behavior change after
the operation.
1270. Zilberstein B., Pajecki D., Garcia de Brito A., Gallafrio S., Eshkenazy R., Andrade C.,
Topiramate after Adjustable Gastric Banding in Patients with Binge Eating and Difficulty Losing Weight,
(LAP-BAND® System Article)

BACKGROUND: About 15% of patients who undergo adjustable gastric banding (AGB) have difficulty losing weight due to, among other factors, the development or maintenance of binge eating disorder. Topiramate is an anticonvulsive drug with proven good results in controlling binge eating episodes. The objective of this study was to analyze the effect of topiramate in patients with AGB. METHODS: 16 patients with binge eating and inadequate weight loss after AGB were analyzed prospectively for 3 months while receiving topiramate in doses varying from 12.5 to 50 mg per day. RESULTS: There was a mean increase in excess weight loss from 20.4% to 34.1% without the need for band readjustment. 2 patients had intolerance to topiramate and were changed to fluoxetine 40 mg per day. CONCLUSION: Topiramate may be a useful adjuvant for patients with AGB and binge eating disorder.

1271. Zilberstein B., Pajecki D., Andrade CG, Eshkenazy R., Garcia de Brito AC, Gallafrio ST,
Simultaneous gastric banding and cholecystectomy in the treatment of morbid obesity: Is it feasible?
(LAP-BAND® System Article)

BACKGROUND: In the last decade, laparoscopic surgery for morbid obesity has become widely employed, including a marked increase in the placement of adjustable gastric bands (AGB). Among the co-morbidities of morbid obesity is cholelithiasis. The question arises whether concomitant cholecystectomy increases the risk of postoperative infectious complications due to the association of a potentially contaminated procedure with a clean operation, placement of an AGB. The aim of this study is to evaluate the postoperative outcome in patients submitted to laparoscopic AGB with cholecystectomy. METHODS: From January 2000 to January 2004, 308 patients (85 men and 223 women) had AGB placed. BMI ranged from 38.9 to 65.6 kg/m(2) (mean 41.6). In 17 patients (5.5%), gallstones were detected by ultrasonography, and cholecystectomy was performed together with the AGB. Mean operative time for placement of the AGB was 58 +/- 18 min, and in those with cholecystectomy 86 +/- 17 min (P =0.20). RESULTS: All patients that had placement of AGB and cholecystectomy had satisfactory postoperative outcome. No infectious complications were observed. CONCLUSION: Laparoscopic cholecystectomy performed simultaneously with placement of an AGB has been a safe procedure.

1272. Zilberstein B., Pajecki D., Brito A., Huhn M., Vasques R., Brasileiro B.,
Analysis of the effect of intensive follow-up on the outcomes of patients with adjustable gastric banding and initial difficulty in losing weight,
(LAP-BAND® System Abstract)


No abstract available


1280. Zimmermann J.M., Blanc M., Zimmermann E.,
Comparative Results of 2 Types of Gastric Banding by Laparoscopy: A Prospective Study
About 2 Series of 20 Patients,
(LAP-BAND® System Congress Presentation Abstract)

1281. Zimmermann J.M., Blanc M., Zimmermann E.,
Slippage, a Major Problem of Gastroplastic Surgery by LASGB: How to Treat It, and
How to Prevent it Relating to a Homogenous Series of 69 Patients Out of 1000 LASGB
Operated Between July 1995 and March 1999,
(LAP-BAND® System Congress Presentation Abstract)

1282. Zimmermann J.M., Blanc M., Zimmermann E., Grimaldi J.M.,
Slippage, a Major Problem of Gastroplastic Surgery by LASGB,
How to Treat it, and How to Prevent it Relating to Homogenous Series of 82 Patients Out
of 1050 L.A.S.G.B. Operated Between July 95 and July 99,
*Obesity Surgery*, 10, 2000, 135.
(LAP-BAND® System Congress Presentation Abstract)

1283. Zimmermann J.M., Blanc M., Zimmermann E., Grimaldi J.M.,
Comparative Results with Two Types of Gastric Banding by Laparoscopy: A Prospective Study About 2 Series of 20 Patients with a Follow-Up of More Than 12 Months,
*Obesity Surgery*, 10, 2000, 146.
(LAP-BAND® System Congress Presentation Abstract)

1284. Zimmermann J.M., Blanc M., Mashoyan P., Zimmerman E., Grimaldi J.M.,
A New Surgical Technique for the LAP-BAND®,
*Obesity Surgery*, 10, 2000, 315.
(LAP-BAND® System Congress Presentation Abstract)

1285. Zimmermann J.M., Blanc M., Mashoyan P., Zimmermann E., Grimaldi J.M.,
LAP-BAND®, Changes in Surgical Technique: Outcome of 1410 Surgeries Performed
from July 1995 through April 2001,
(LAP-BAND® System Congress Presentation Abstract)

1286. Zimmermann J.M., Blanc M., Mashoyan P., Zimmermann E., Grimaldi J.M.,
LAP-BAND®, Prevention of Slippage Series of 1410 Patients: Switching From the 9.5/10.0
Band to the New Generation 11.0 Band,
(LAP-BAND® System Congress Presentation Abstract)


1294. Zimmermann JM, Blanc M, Mashoyan P,
Gastric Bypass after Adjustable Ring: A High-Risk Operation,
*Obesity Surgery, 16*, 2006, 1029.
(LAP-BAND® System Abstract)

1295. Zimmermann JM, Blanc J., Mashoyan P., Zimmerm ann E.,
Gastric bypass after an adjustable gastric banding: A high-risk procedure,
(LAP-BAND® System Abstract)

1296. Zinzindohoue F., Chevallier J.M., Douard R., Elian N., Ferraz J.M., Blanche J.P., Berta J.L.,
Altman J. J., Safran D., Cugnenc P.H.,
Laparoscopic Gastric Banding: a Minimally Invasive Surgical Treatment for Morbid
Obesity: Prospective Study of 500 Consecutive Patients,
(LAP-BAND® System Article)

OBJECTIVE: To evaluate early and late morbidity of laparoscopic adjustable gastric banding for
morbid obesity and to assess the efficacy of this procedure by analyzing its results. SUMMARY
BACKGROUND DATA: Laparoscopic adjustable gastric banding is considered the least invasive
surgical option for morbid obesity. It is effective, with an average loss of 50% of excessive weight
after 2 years of follow-up. It is potentially reversible and safe; major morbidity is low and there is no
mortality. METHODS: Between April 1997 and June 2001, 500 patients underwent laparoscopic
surgery for morbid obesity with application of an adjustable gastric band. There were 438 women
and 62 men (sex ratio = 0.14) with a mean age of 40.4 years. Preoperative mean body weight was 120.7
kg and mean body mass index (BMI) was 44.3 kg. m. RESULTS: Mean operative time was 105
minutes, 84 minutes during the last 300 operations. Mean hospital stay was 4.5 days. There were no
deaths. There were 12 conversions (2.4%), 2 during the last 300 operations. Fifty-two patients (10.4%)
had complications requiring an abdominal reoperation. Forty-nine underwent a reoperation for
minor complications: slippage (n = 43, incisional hernias (n = 3), and reconnection of the catheter (n =
3). Three patients underwent a reoperation for major complications: gastroesophageal perforation (n
= 2) and gastric necrosis (n = 1). Seven patients had pulmonary complications and 36 patients
experienced minor problems related to the access port. At 1-, 2-, and 3-year follow-up, mean BMI
decreased from 44.3 kg. m to 34.2, 32.8, and 31.9, respectively, and mean excess weight loss reached
42.8%, 52%, and 54.8%. CONCLUSIONS: Laparoscopic adjustable gastric banding is a beneficial
operation in terms of excessive weight loss, with an acceptably low complication rate. It can
noticeably improve the quality of life in obese patients. Half of the excess body weight can be
effortlessly lost within 2 years.