

This was accompanied by decreased leptin plasma levels. Based on the colocalization of ghrelin and nesfatin-1 in the same gastric cell in rats, a finding recently confirmed in humans, this cell could play a pivotal role in the adaptation mechanisms altered under the present conditions of weight loss. The alterations of ghrelin and nesfatin-1 at 12 months irrespective of the sustained decreased body weight may facilitate maintenance of body weight loss after the period of one year.

Mo1182

Analysis of 418 Patients Submitted to Endoscopic Treatment of Excess Weight With an Intra-gastric Balloon

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INTRODUCTION: Endoscopic methods, especially the intra-gastric balloon (IGB), have been shown to be effective for the treatment of excess weight. **OBJECTIVE:** To assess the efficacy and complications of excess weight treatment with an IGB in patients seen at the Endogastro Med Service clinic. **METHODS:** A total of 418 patients were analyzed. An Allergan IGB (BIB®) with a volume of 600 to 700 ml was used. The patients had a minimum initial body mass index (BMI) of 27 kg/m² and were followed up by a multidisciplinary team consisting of a nutritionist, a doctor and a psychologist. For statistical analysis, the patients were divided into groups according to sex and degree of excess weight (overweight and grade I, II and III obesity). Data were analyzed using descriptive statistical methods, the Student t-test, Spearman correlation, and analysis of variance followed by the Tukey post-test. The level of significance was set at $p < 0.05$. **RESULTS:** 40 patients were excluded from the analysis: 24 (5.74%) due to early IGB removal, 4 (0.95%) due to absence of weight loss, 2 (0.48%) due to weight gain, and 10 (2.39%) due to incomplete data. The incidence of fungus was 0.95% ($n=4$) and the incidence of leakage was 0.48% ($n=2$). Of the 378 remaining patients, 295 were women and 83 were men. Mean age was 37.02 years. The patients showed a significant weight loss, with a significantly lower final BMI (mean: 29.57 ± 5.06 kg/m²; range: 19.81-48.18) than the initial BMI (mean: 36.70 ± 5.53 kg/m²; range: 27.04-60.4) ($p < 0.0001$). Mean BMI reduction was 7.13 ± 2.76 kg/m² (range: 1.59-16.09). Mean percent weight loss was $19.38 \pm 6.75\%$ and mean percent excess weight loss was $70.73 \pm 38.78\%$ (range: 11.16-336.14). There was no difference between BMI ranges regarding percent initial weight loss ($p=0.5026$) and there was no difference between men and women regarding BMI reduction ($p=0.0944$) or percent initial weight loss ($p=0.7902$). There was a positive correlation between the numbers of visits to a nutritionist and a greater loss of initial weight ($p=0.0001$). **CONCLUSION:** Endoscopic treatment of excess weight with an IGB has been established as an excellent therapeutic option for patients of both genders with overweight or different degrees of obesity.

Mo1183

Screening Pre-Bariatric Surgery Patients for Esophageal Disease With Esophageal Capsule Endoscopy Compared to Esophagogastroduodenoscopy

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Introduction: Esophagogastroduodenoscopy (EGD) in the preoperative evaluation of morbidly obese patients undergoing bariatric surgery such as gastric banding, sleeve gastrectomy and gastric bypass is useful in detecting pathological findings that could negatively influence the postoperative outcome. Patients referred for bariatric surgery often have cardiopulmonary co-morbidities which puts them at risk for any procedure that involves conscious sedation. Esophageal capsule endoscopy (ECE) offers a less invasive diagnostic alternative in evaluating diseases of the esophagus as it does not require sedation and is better tolerated by patients. **Aim:** To determine if ECE is an adequate diagnostic alternative to EGD in pre-bariatric surgery patients. **Methods:** We conducted a prospective pilot study to assess the diagnostic accuracy of ECE (PillCam ESO, Given Imaging) versus conventional EGD in pre-bariatric surgery patients. Patients who were scheduled for bariatric surgery and referred for pre-operative EGD were prospectively enrolled. All patients underwent ECE followed by standard EGD. Two experienced gastroenterologists blinded to the patient's history and the findings of the EGD reviewed the ECE and documented their findings. The gold standard was the findings on EGD; ECE findings were compared with those on EGD. **Results:** Ten patients with an average body mass index of 50 kilograms/meter² were enrolled and completed the study. ECE identified 11 of 14 (79%) positive esophageal/gastroesophageal junction (GEJ) findings and 14 of 17 (82%) combined esophageal and gastric findings identified on EGD. Fisher's Exact Test was used to compare the findings and no significant difference was found between ECE and EGD ($p=0.64$ for esophageal/GEJ and 0.66 for combined esophageal and gastric findings respectively). Of the positive esophageal/GEJ findings, ECE failed to identify the following: hiatal hernia in two patients, mild esophagitis in two patients, and mild Schatzki ring in two patients. Conversely, ECE identified a Schatzki ring in one patient, an irregular Z-line in another patient, and a hiatal hernia in a third patient not identified on EGD. There were no adverse events related to ECE. ECE was able to identify the entire esophagus in 97%, gastric cardia in 0%, gastric body in 100%, gastric antrum in 70%, pylorus in 60%, and duodenum in 10%. **Conclusion:** There were no significant differences in the likelihood of identifying a positive finding using ECE compared with EGD in preoperative evaluation of bariatric patients. ECE may be a safer alternative than sedated EGD for evaluation of esophageal disorders prior to bariatric surgery, but cannot consistently evaluate for gastric or duodenal pathology.

Mo1184

Esophageal Stents Effectively Manage Large Gastric Leaks Following Bariatric Surgery

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AIMS: Gastric leaks are a serious complication of bariatric surgery. Management has traditionally consisted of surgical repair, which is technically difficult and frequently fails. Endoscopically placed removable self-expanding esophageal stents are safe and effective in the management of post-esophagectomy anastomotic leaks, but their use in treating gastric leaks is not well described. The noninvasive nature, technical ease and relative low cost of stenting are advantageous. The objective of the current study is to determine the safety and efficacy of endoscopic stenting for the treatment of gastric leaks following bariatric surgery. **METHODS:** Patients at a single center who underwent esophageal stenting for treatment of a gastric leak following bariatric surgery from January 2010 - November 2011 were included in this case series. Data on clinical presentation, stent type and duration, healing rates and stent-associated complications was obtained through retrospective chart review. **RESULTS:** Among 5 patients identified for study inclusion, the mean age was 48.8 years (range 30 - 62), 1/5 (20%) was male, 2/5 (40%) had BMI < 35 , all had laparoscopic sleeve gastrectomies, 1/5 had surgery in Canada, and 4/5 were medical tourists who had surgery in Mexico. Leaks were diagnosed a mean of 9.6 days (range 6 - 12) post-op. The most common presenting symptoms were abdominal pain and fever. The estimated size of the gastric defects ranged from 5 - 20 mm. One patient had 6 laparotomies for washout and 2 unsuccessful attempts at surgical closure of the leak prior to stenting. The mean number of post-op days at stenting was 45 (range 11 - 67). All stents were centered at the defect with fluoroscopic guidance. Three of five initial stents were fully covered self-expanding metal esophageal stents, and the remaining two were self-expanding plastic silicone esophageal stents. All stents were 18 mm in diameter and ranged in length from 12.3 - 15.3 cm. Initial stents were removed after a mean of 31 days (range 9 - 91). Complete healing had been achieved in 3/5 patients at initial stent removal. Two patients required 1 or 2 subsequent stents to achieve complete healing. Five of eight stents migrated, 3 to the extent that the defect was uncovered. Two of five metal stents were complicated by mucosal ulceration and tissue hyperplasia at the stent ends. All stents were removed endoscopically without complication. **CONCLUSIONS:** Endoscopically placed esophageal stents are safe and effective treatment for gastric leaks post-bariatric surgery. The most frequent complication observed in this study was stent migration. Metal stents may be more likely to result in mucosal damage than plastic stents. Four of five patients in this series were medical tourists, suggesting that higher than acceptable complication rates may be present in this population.

Mo1185

Long-Term Outcomes of Weight Loss Surgery for Obesity in a Community Setting: Gastric Bypass Versus Adjustable Banding?

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Although current data indicate Roux-en-Y gastric bypass (RYGB) induces greater weight loss than laparoscopic adjustable gastric band (LAGB), the most common surgical procedure performed for weight loss in Australia is LAGB. **Aim:** To compare weight loss and surgical outcomes of RYGB and LAGB in an Australian community. **Methods:** Body mass index (BMI) and complications of RYGB (1995-2009; $n=609$; 116M:493F; 42.4 ± 0.4 yrs) or LAGB (2004-2009; $n=686$; 131M:555F; 37.2 ± 0.4 yrs) data were extracted from prospective databases of two bariatric centres. **Results:** Pre-operative BMI was higher in patients who underwent RYGB than LAGB (46.8 ± 0.3 vs. 40.4 ± 0.2 ; $P < 0.01$); more patients with BMI < 35 kg/m² underwent LAGB than RYGB (17.1 vs. 4.1 %; $P < 0.0001$). BMI decrease was considerably greater after RYGB at all time points (figure). There was a direct relationship between weight loss and the preoperative BMI ($P < 0.001$). Although there was no difference in weight loss between genders during the first 3 years of either RYGB or LAGB, males who underwent LAGB had a greater reduction in BMI than females after 3 years of surgery (-8.2 ± 2.3 vs. -3.9 ± 0.7 kg/m²; $P=0.02$). Peri-operative complications occurred more frequently following RYGB than LAGB (11 vs. 1 %; $P < 0.01$), with the majority related to wound infection. LAGB had more long-term complications requiring corrective procedures than RYGB (8 vs. 1 %; $P < 0.001$); these were less likely to occur in males (1/131 vs. 54/555; $P < 0.001$). Conversion to RYGB resulted in a greater BMI reduction (-9.5 ± 1.0 kg/m²) as compared to removal and replacement of the band (-6.0 ± 1.1 kg/m²). **Conclusions:** In a community setting, RYGB produces substantially greater weight loss than LAGB in both the short- and long-term. Whilst peri-operative complications are greater after RYGB, most are related to wound infection and the long-term complication rate is less than that LAGB. Where band failure occurs the RYGB is the superior salvage procedure.

