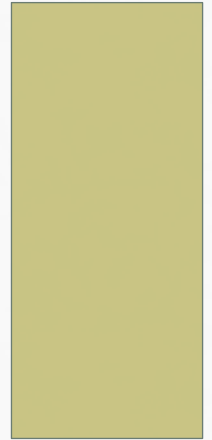


GERD, HIATAL HERNIA AND GASTRIC BYPASS SURGERY

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PGY4



SCHWARTZ'S:

- GERD is symptomatically present in approximately half of patients with severe obesity and has been objectively proven to be present in 21%
- Obese patients with GERD have a higher chance of failing to obtain symptomatic relief from standard antireflux surgery
 - Recurrence of symptoms is higher likely due to a higher incidence of wrap herniation into mediastinum and other medical failure of the fundoplication
 - Can be affected by increased intraabdominal pressure
- A patient with BMI >35 has a better chance of eliminating symptoms by undergoing LRYGB
 - Resolves GERD in >90-97% of patients
 - It creates such a small gastric pouch that it has a very limited volume for acid production

SABISTON/SAGES:

- Immediate resolution of symptoms of GERD occurs in more than 90% of cases
- The extremely small gastric pouch has a limited reservoir for holding gastric juice and the cardia is a low acid producing area of the stomach

GASTRO-OESOPHAGEAL REFLUX DISEASE IN OBESITY: PATHOPHYSIOLOGICAL AND THERAPEUTIC CONSIDERATIONS.

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- **Source**

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- **Abstract**

- Gastro-oesophageal reflux disease (GERD) is common in obese patients. Apart from the physical discomfort and the economic burden, GERD may increase morbidity and mortality through its association with oesophageal carcinoma. The pathophysiology of GERD differs between obese and lean subjects. First, obese subjects are more sensitive to the presence of acid in the esophagus. Second, hiatal hernia, capable of promoting GERD by several mechanisms, is more prevalent among the obese. Third, obese subjects have increased intra-abdominal pressure that displaces the lower oesophageal sphincter and increases the gastro-oesophageal gradient. Finally, vagal abnormalities associated with obesity may cause a higher output of bile and pancreatic enzymes, which makes the refluxate more toxic to the oesophageal mucosa. The altered body composition associated with obesity affects the pharmacokinetics of drugs. There are no data regarding the efficacy of any of the drugs used for GERD treatment. The dosages of cimetidine and ranitidine should be calculated according to the patient's ideal body weight, not their actual weight. **Of the operative procedures used for weight loss, Roux-en-Y gastric bypass was found to be most effective for GERD, while gastric banding was associated with a high prevalence of reflux.** This review outlines the pathophysiology and the treatment of GERD in obesity with emphasis on the therapeutic considerations in this population of patients.

CONCURRENT REPAIR OF GIANT HIATAL HERNIA DURING LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS

ERIC TURNEY, MD; JOHN G. ZOGRAFAKIS, MD, FACS

- Introduction: **The presence of a large hiatal hernia (> 5 cm) is problematic and may preclude successful weight reductive surgery. Primary cruroplasty may be sufficient for smaller diaphragmatic defects, but has been shown to be inadequate for large hiatal hernias.** Synthetic mesh is contraindicated when bowel continuity is disrupted, and the use of biologic mesh product has not been fully evaluated.
- Methods: A 51 year old female with a history of gastroesophageal reflux disease presented for evaluation for weight reductive surgery. Preoperative EGD and barium swallow were performed which showed a 7 cm hiatal hernia. A laparoscopic primary hiatal hernia repair was performed over a 50 Fr. lighted bougie. A piece of biologic mesh was cut into a keyhole configuration and secured to the diaphragm using staple fixation. After the hiatal hernia repair and mesh reinforcement, a laparoscopic Roux-en-Y gastric bypass (25-mm EEA stapler) was performed.
- Results: A postoperative water-soluble contrast study showed complete reduction of the hiatal hernia and no evidence of contrast extravasation or obstruction. The postoperative course was complicated by marginal ulceration, successfully treated with carafate and PPI therapy. Six months from surgery, she has had resolution of her GERD symptoms, and a weight loss of 87 lbs. (41% EBW).
- Conclusion: **Laparoscopic hiatal hernia repair with biologic mesh reinforcement of the diaphragm is feasible in conjunction with laparoscopic Roux-en-Y gastric bypass and may reduce the recurrence rate of large hiatal hernias.**

LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS FOR RECALCITRANT GASTROESOPHAGEAL REFLUX DISEASE IN MORBIDLY OBESE PATIENTS.

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- **Source**

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- **Abstract**

- **BACKGROUND AND OBJECTIVES:**

- Gastroesophageal reflux disease (GERD) is commonly associated with morbid obesity (MO). Antireflux surgery has a higher failure rate in MO and addresses only one of the comorbidities present. This paper reviews the results of laparoscopic Roux-en-Y gastric bypass (LRYGBP) performed for recalcitrant GERD in MO.

- **METHODS:**

- Patients with recalcitrant GERD and a body mass index (BMI)>35 undergoing LRYGBP were included. **LRYGB included crural repair, creation of a small gastric pouch (30 mL), and intestinal bypass (150 to 180 cm).** All patients were followed in clinic and by telephone.

- **RESULTS:**

- From February 1999 to April 2001, 57 patients (51 F, 6 M) with a mean age of 43 (range, 22 to 67) and a median BMI of 43 underwent LRYGBP. Hiatal hernia or esophagitis, or both, were present in 48, Barrett's in 2. LRYGBP was possible in 52 patients; 5 required open conversion. The median hospital stay was 3 days. Complications included 1 leak, 1 pulmonary emboli, 2 reoperations for internal roux limb hernia, and 7 gastrojejunal strictures. At a mean follow-up of 18 months (range, 3 to 30), all patients report improvement or no symptoms of GERD and a mean weight loss of 40 kg (range, 16 to 70). Quality of life scores (SF-36) were above national norms for physical and mental components (median 55, norms=50). GERD-health related quality of life median score was <1 (scale, 0 to 45, 0=asymptomatic, 45=worse).

- **CONCLUSION:**

- LRYGBP was effective for recalcitrant GERD in MO. LRYGBP also led to weight loss and improvement in other comorbidities. Surgeons with minimally invasive expertise should consider LRYGBP for treatment of GERD in the morbidly obese.