

(RYGB) is a potent procedure to prevent reflux symptoms in morbidly obese patients as well as to treat their underlying obesity.

Methods: We conducted a retrospective chart review of a patient undergoing diagnostic laparoscopy for intermittent abdominal pain three years after RYGB. Results A 58 year old non-ambulatory man had elective laparoscopic RYGB (retrocolic) in April 2012 for a weight of 499 pounds and a BMI of 64 with coronary artery disease, type 2 diabetes, hypertension, gastroesophageal reflux (GERD), and sleep apnea (OSA). He did well postoperatively getting down to his current weight of 242 pounds. He has had remission of his type 2 diabetes, OSA, and GERD, is ambulatory and employed. He was started on ASA and plavix by his cardiologist two years after his weight loss surgery in May of 2014 after losing 85% of his excess weight for ongoing small vessel coronary artery disease. He complained of reflux and was started on a proton pump inhibitor with resolution of his symptoms. He takes his supplements, follows the program recommendations, exercises consistently and has been feeling well until about six weeks prior. He called in January of 2015 with a six week history of postprandial substernal and left lower quadrant pain occurring twice per week. He described it as if the food was not emptying properly from his pouch. A CT scan of his abdomen and pelvis was read as normal by the radiologist but there appeared to be a significant amount of small bowel in the left upper quadrant. Diagnostic laparoscopy revealed hiatal hernia with his entire pouch and gastrojejunostomy in the chest and an internal hernia at the mesocolon with his entire small bowel above the transverse colon- biliary limb and common limb included. The hiatal hernia was repaired by excising the hernia sac and closure of the crura posterior to the esophagus and then the small bowel was reduced and the petersen's space and mesocolic window repaired with permanent suture. His symptoms resolved immediately.

Discussion: In our practice up to 80% of patients undergoing a vertical sleeve gastrectomy or adjustable gastric band are found to have a hiatal hernia that is repaired at the time of surgery. Over the past 15 years we have increasingly repaired hiatal hernias at the time of Roux-en-Y gastric bypass. On reviewing this patient's chart there was no mention of hiatal hernia seen at primary surgery. Perhaps he had fat occupying the hiatus and his gastroesophageal junction was in his abdominal cavity when he weighed 499 pounds. Certainly at his diagnostic laparoscopy he had a large hernia sac and his gastric pouch, left gastric artery and gastrojejunostomy with proximal jejunum were in his posterior mediastinum. Perhaps the development of his hiatal hernia with weight loss caused enough tension on the mesocolic closure to disrupt it and help his small bowel migrate thru the mesocolic window resulting in his internal hernia. At a BMI of 64, repair of a hiatal hernia would be challenging and be at high risk of recurrence but perhaps would have avoided the development of an internal hernia.

A5077

MID-TERM OUTCOMES OF ROUX-EN-Y GASTRIC BYPASS IN VENEZUELAN PATIENTS WITH TYPE 2 DIABETES MELLITUS

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Background: The goal was to describe the mid-term results of laparoscopic Roux-en-Y gastric bypass (LRYGB) on excess weight loss, remission of diabetes and complications in patients with type 2 diabetes mellitus (T2DM) in a bariatric program located at Caracas, Venezuela.

Method: Observational retrospective study of 80 obese patients with DM between 1999 to 2010 for a period of 31 months with initial body mass index (BMI) of 49.3kg/m². An 81.3% underwent laparoscopic RYGBP and 18.8% open. The mean preoperative T2DM was 3 years. The remission and control rate, diabetic medication usage, complications and changes in the anthropometric values were measured.

Results: At the end of follow-up we founded BMI 30.9kg/m², the median percentage of excess weight loss (%EWL) was 69.7% and the percentage of weight loss (%WL) 37.0%. Glycemia decreased from 178 mg/dl to 85 mg/dl, with final value glycosylated hemoglobin of 6.4%. T2DM remission was achieved in 93.75% and control in 6.25% of patients. Diabetic medication requirement was reduced from 87.6% to 6.3% ($p=0,001$). The preoperative T2DM time influenced the rate of remission ($p=0.034$). Early complications were 11% and the long term 3.7%, without mortality.

Conclusion: LRYGB is effective for obese patients with T2DM achieving a high remission rate with the early intervention at diagnosis, maintains a successful %EWL at mid-term with a low morbi-mortality.

A5078

ROUTINE ULTRASONOGRAPHY FOR DIAGNOSIS OF NONALCOHOLIC FATTY LIVER DISEASE IN PATIENTS WITH BMI ≥ 40 KG/M²

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Background: Liver biopsy is the gold standard diagnostic test for Nonalcoholic fatty liver disease (NAFLD), however expensive imaging tests such as MRI and CT have excellent accuracy. The aim of this study is to evaluate ultrasound results obtained in routine ultrasound examinations in patients with BMI ≥ 40 kg / m².

Methods: We analyzed the data of 750 patients with BMI ≥ 40 Kg/m² who were submitted to surgery for morbid obesity at the Centro de Obesidade e Síndrome Metabólica do Hospital São Lucas da PUCRS, Brazil. Every patient underwent ultrasonography before surgery and liver needle biopsy at the beginning of the surgical procedure. The degree of steatosis (Burt' score) on biopsy was compared to its presence on ultrasonography.

Results: All the patients analyzed had NAFLD, 178 (23.7%) mild steatosis, 238 (31.7%) moderated steatosis, 333 (44.4%) severe steatosis and 1 (0.1%) had cirrhosis, and 526 (70.1%) patients ultrasonography presented steatosis. When accessed separately, the

ultrasonography presented steatosis in 97 (54.4%) cases of mild steatosis, in 161 (67.6%) moderate steatosis and in 268 (80.4%) of severe steatosis, $\chi^2 = 38.573$, $P < 0.001$.

Conclusion: It was observed an increase on ultrasonography sensibility as the degree of steatosis increase in this group of patients.

A5079

CORRELATION BETWEEN DYSLIPIDEMIA IMPROVEMENT AND CHANGES AT BODY FAT PERCENTAGE IN MORBIDLY OBESE PATIENTS SUBJECTED TO GASTRIC BYPASS

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Background: Body Mass Index although it's practicality have limitations. The aim of this study is evaluate the correlation between dyslipidemia improvement and body fat percentage changes.

Methods: We conducted an observational, retrospective cohort study of patients subjected to gastric bypass. We selected patients who underwent bioimpedance analysis and laboratory tests before surgery at 3, 6 and 12 months postoperatively.

Results: We studied 228 patients with a mean age of 37.4 ± 11.7 years old. Most patients were female (76.3%). Initially, 143 patients (66.2%) showed criteria for dyslipidemia, and 6 months after surgery, this number fell to 83 patients (50.6%) and continued falling over time to only 45 patients (28.5%) 12 months after surgery. In relating different variables with the decrease in percent body fat at 12 months, a significant association was seen with weight loss ($r=0.258$; $p=0.009$), BMI ($r=0.272$; $p=0.005$) and waist circumference ($r=0.357$, $p < 0.001$). However, the only biochemical parameter showing a significant association was HDL-C level ($r=-0.267$; $p=0.009$). Patients with the greatest decrease in body fat percentage were those with the largest decrease in weight, BMI and waist circumference and highest increase in HDL-C level.

Conclusion: This study demonstrated the association of decrease in percent body fat with increase in HDL-C, regardless of sex and age. The same association was also observed when using the parameters BMI, weight loss and waist circumference.

A5080

ABC STUDY: RESULTS OF THE FIRST US RANDOMIZED TRIAL OF BARIATRIC SURGERY FOR TREATMENT OF OBSTRUCTIVE SLEEP APNEA

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ABC Study cohort

	LAGB	CPAP	P value
Pre-surgery			
Age	51.3 ± 8.9	48.4 ± 9.4	NS
Male %	47%	68%	NS
BMI	39.1 ± 2.8	38.9 ± 3.1	NS
Initial AHI	49.7 ± 24.8	48.9 ± 26.7	NS
Initial ESS score	8.9 ± 2.6	11.4 ± 5.1	NS
Post-surgery			
Reduction in BMI at 9-months	5.2 ± 2.6	0.7 ± 2.6	P<0.05
Improvement at AHI at 9-months	-20.4 ± 26.0	-6.6 ± 25.3	P<0.05
Improvement in effective AHI at 9-months	-20.4 ± 26.0	-26.9 ± 31.2	NS
Improvement in ESS score	-2.2 ± 5.3	-3.4 ± 4.6	NS

Background: Obesity is the most common risk factor for obstructive sleep apnea (OSA) and current treatment with continuous positive airway pressure (CPAP) is often poorly tolerated. Bariatric surgery has been shown to improve OSA severity but these studies have primarily occurred in patients seeking weight loss surgery who are incidentally found to have OSA. We initiated an NIH-sponsored randomized trial of CPAP versus bariatric surgery as initial therapy in patients presenting to a sleep disorders clinic with symptomatic severe OSA (NCT01187771).

Methods: Adult patients with severe OSA and body mass index (BMI) of 35-45 kg/m² were recruited from two academically affiliated groups of sleep centers and randomized to either CPAP therapy or laparoscopic gastric banding surgery (LAGB). Follow-up evaluations to assess weight, OSA severity and OSA symptoms were performed at 9 months and 18 months following randomization by blinded observers.

Results: Out of 481 patients meeting eligibility criteria, 97 (20%) attended an informational meeting and 53 enrolled in the study with 49 being randomized (Table 1). There were no major surgical complications. Incidences of adverse events between the 2 treatment groups were similar. LAGB patients had a greater degree of weight loss and reduction in apnea hypopnea index (AHI), although the improvement in effective AHI (AHI accounting for CPAP use) and Epworth Sleepiness Scale (ESS) were similar. Satisfaction with treatment assignment was similar between the 2 groups. The differences in outcomes were persistent at the 18-month evaluation time point.

Conclusion: LAGB is a viable alternative to CPAP at reducing AHI and improving OSA symptoms. Patient satisfaction and incidence of adverse events is similar between LAGB and CPAP. Further studies randomizing patients to more invasive surgeries with greater weight loss are needed and can be justified.

A5081

IMPACT OF LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS VERSUS SLEEVE GASTRECTOMY ON POSTOPERATIVE LIPID VALUES

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Background: Bariatric surgery has been shown to significantly improve many obesity-related comorbidities, including dyslipidemia. Previous research in the early postoperative period has demonstrated inconsistent results in lipid values after laparoscopic