DOES PARTICIPATION IN A “SUPERVISED PROGRAM” AFFECT OUTCOMES AFTER THE LAP-BAND IN THE MEDICAID POPULATION?

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**Background:** We hypothesize that in a primarily Medicaid population, prior weight-loss methods, including supervised dietary programs, do not predict outcomes after the Lap-Band.

**Methods:** Between January-September 2008, 64 patients underwent Lap-Band. Patients were classified into 1 of 4 categories based on prior weight-loss attempts: 1) self-dieting (including commercial programs such as Jenny Craig, Weight Watchers, etc.), 2) self-dieting and diet pills, 3) self-diet and a supervised program 4) self-diet, diet pills, and supervised program. We defined “supervised programs” as those with regular visits over the course of several months, directed by a physician, nutritionist, or physiologist. Multivariate regression modeling techniques were used to compare %EWL in the 4 groups.

**Results:** Mean preop age and BMI were 43 years (20-61) and 44 kg/m2 (35-50), respectively. By race/ethnicity: 58% were Latin-American, 14% African-American, 3% White, and 25% other. 89% had Medicaid insurance. All patients (100%) used some form of self-dieting; 64% used diet pills, and 69% participated in a supervised program. Overall mean %EWL was 22%, 31% and 40% at 3, 6, and 9 months, respectively. When stratifying %EWL based on preop dieting history, there was no difference in %EWL between the 4 groups (21%, 20%, 20%, 26% at 3.4 months; p=NS all groups). When looking specifically at participation in a supervised program, there was still no difference (20% vs. 23.5% at 3 months, p=.48).

**Conclusion:** Our preliminary results demonstrate that in a primarily Medicaid population, past attempts at weight loss - especially participation in supervised programs - do not predict %EWL after the Lap-Band.

SRF-102.

LAPAROSCOPIC INCISIONAL HERNIA REPAIR (LIHR) FOLLOWING OPEN ROUX-EN Y GASTRIC BYPASS (ORYGB)

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**Background:** Following open or laparoscopic gastric bypass, patients exhibit similar weight loss, resolution of comorbidities, and complication rates. The exception is incisional hernia formation where hernia rates of 39% (open) versus 2% (lap) are reported. LIHR has become the preferred method of repair because of reduction in recurrence rates as well as wound infection and other complications. This review evaluates the safety, feasibility and recurrence rates of
laparoscopic incisional hernia repairs after open gastric bypass.

**Methods:** A prospectively maintained database was queried for patients s/p ORYGB who developed an incisional hernia which was repaired laparoscopically and followup was available for 24 months. Demographics, comorbidities, nutritional parameters, and operative details were collected as well as early and late complications. Recurrence data were recorded as of the last follow up appointment.

**Results:** Sixty patients (72% female) underwent an attempt at LIHR. Three procedures (5%) were converted to open. The mean BMI at the time of LIHR was 38 Kg/m2. Two patients (3.5%) had recurrent hernias. There were no episodes of mesh infection.

**Conclusion:** LIHR is feasible following ORYGB. It can be accomplished with complication and recurrence rates which meet or exceed that of the general population even in this population which remains obese and should be considered the technique of choice.

SRF-103.

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**ABNORMALITIES ASSOCIATED WITH UPPER GASTROINTESTINAL CONTRAST STUDY PRIOR TO LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING**

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**Background:** During preoperative evaluation for laparoscopic adjustable gastric band (LAGB) an anatomic or physiologic abnormality may be found. It has been shown that a hiatal hernia (HH) found on preoperative upper gastrointestinal contrast study (UGI) is no longer an absolute contraindication to LAGB as the HH may be repaired intra-operatively. The further clinical significance of these abnormalities has yet to be demonstrated.

**Methods:** A retrospective chart review of a single center’s experience was conducted. Patients who underwent LAGB between 1/05 and 10/08 and who had a pre-operative UGI were included. Records were reviewed and preoperative UGI findings, operative findings, and management were recorded.

**Results:** 141 patients had preoperative UGI and LAGB placement during the study period. Of these, 61 had only a HH and 12 had only a motility disorder found on UGI. Seven patients had both HH and motility disorder. Five patients required an intra-operative HH repair. Within 90 days, nine patients (6.4%) had a slipped band. Five patients (56%) were patients with a HH on UGI (one of which had HH repair during LAGB). There were no complications in the 19 patients that had a motility disorder.

**Conclusion:** Preoperative workup for LAGB reveals a high number of abnormalities on UGI. The relatively high rate of band slippage in the HH population suggests that further evaluation of the potential association between HH and slippage is necessary.

SRF-104.
EXHALED NITRIC OXIDE IN OBESE ASTHMATICS AND OBESE NON-ASTHMATICS
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Background: Non-obese asthmatics have elevated levels of exhaled nitric oxide (eNO), a biomarker of airway inflammation. Whether obesity influences eNO levels is an open question.

Methods: Patients (n=12) with and without asthma and a BMI > 40 were recruited from the Columbia University Center for Metabolic and Weight Loss Surgery. Subjects were excluded for current smoking, > 10 pack-year smoking history, and significant comorbidities. Prior to and three months following bariatric surgery, respiratory and gastroesophageal reflux disease questionnaires were administered, allergy skin testing and pulmonary function testing conducted, and eNO measured.

Results: Mean BMI before and after surgery decreased from 47 to 41 among non-asthmatics and 48 to 45 among asthmatics. Levels of eNO ranged from 4 to 20 ppb. There were no significant differences in mean eNO among asthmatics and non-asthmatics (5.6 vs. 8.0 ppb), or before and after surgery (7.6 vs 7.8 ppb). No associations were found between eNO and allergy skin tests, BMI, ethnicity, age, or pulmonary function test parameters. However, a single correlation between eNO and forced expiratory flow rate 25 - 75 (r = 0.7, p = 0.01) was evident. Males had higher eNO levels than females (p = 0.03). Higher eNO levels were associated with lower GERD symptom scores (r = -0.6, p = 0.04).

Conclusion: In a pilot study, obese asthmatics and obese non-asthmatics had normal levels of eNO before and after bariatric surgery. Further research is needed to determine whether asthma symptoms in obese patients are due to respiratory mechanics or novel mechanisms of airway inflammation.

SRF-105.

REVISION OF GASTRO-JEJUNOSTOMY ACCORDING TO OPERATIVE INDICATIONS
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Background: Revisional bariatric surgery has been associated with higher complication rates and careful patient selection is critical to good outcomes. The aim of this study is to assess indication, feasibility, and complications of revision gastro-jejunostomy (G-J).

Methods: A retrospective review was conducted from 1/05 to 5/07. Patient characteristics, indication for revision of G-J, complications, and weight loss were evaluated. Patients were grouped according to operative indications: complications of prior surgery (Group A) and weight regain (Group B).

Results: 27 patients were included. There were no peri-operative mortalities. Group A had 22
patients that underwent redo G-J due to persistent strictures (10) and marginal ulcers (12). Group B had 5 patients with mean pre-operative BMI 43. After revisional surgery, group B BMI decreased to 35. Mean follow up was 12 months. Mean hospital stay was 6.2 days. Short term (1 month) complications occurred in 7 patients and included 2 post-operative admissions to ICU for respiratory distress, 1 intra-abdominal abscess, 1 retained specimen, 1 re-admission for dehydration, 1 partial SBO, and 1 abdominal wall abscess. Long term complications (>1 month) occurred in 9 patients and included 1 gastrocutaneous fistula from gastrostomy tube site. 8 patients developed severe vomiting and EGD was performed. This showed 1 marginal ulcer and 6 strictures. 4 of these 6 patients with stricture underwent successful dilation. 1 patient had a refractory stricture requiring re-operation and 1 patient had RYGB reversal for failure to thrive. Aside from these 2 reoperations, 7 of these 9 patients were asymptomatic in 9-12 months.

Conclusion: G-J revision can be performed with low mortality but complications such as stricture recurrence are common and usually amendable by EGD dilation therapy, however, some patients require reoperation.

SRF-106.

Efficacy and Safety of Weight Loss in the Elderly After Roux-En Y Gastric Bypass vs Laparoscopic Gastric Banding

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Background: While the safety and efficacy of laparoscopic adjustable gastric banding (LAGB) and laparoscopic gastric bypass (RYGB) in the elderly have been demonstrated, comparative data for different bariatric procedures in this patient population is lacking. The aim of this study is to compare the safety and effectiveness of these procedures in patients over age 60.

Methods: A retrospective review of a single center’s experience of RYGB and LAGB from July 2003 to September 2007 was conducted. Patients greater than 60 years at the time of surgery were selected for review. Data points included age, body mass index, gender, and these were compared between each of these procedure groups preoperatively and one year postoperatively.

Results: In the RYGB there was one early death (<90 days) secondary to an unknown cause. In LAGB there was an early death that was secondary to an myocardial infarction. Two late deaths occurred after RYGB unrelated to the procedure.

Conclusion: RYGB and LAGB are both safe and effective in the treatment of weight loss in the elderly bariatric population. At one year RYGB has significantly superior weight loss as compared to LAGB.

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<th>Age mean</th>
<th>PreOperative Weight</th>
<th>PreOperative BMI</th>
<th>BMI at 1 Year</th>
<th>%EWL at 1 Year</th>
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<td>48 kg/m2</td>
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PREVALENCE AND SEVERITY OF SMOKING IN A MORBIDLY OBESE POPULATION IN A BARIATRIC CLINIC

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Background: Obesity and smoking have each been linked to many high risk diseases including coronary heart disease, COPD, cerebrovascular disease, and cancer. The risk of death is three and one-half to five times greater for obese smokers than it is for people who have never smoked and are of normal weight; however, minimal data exists on the prevalence of smoking in the morbidly obese. OBJECTIVE: To describe the prevalence and severity of smoking among morbidly obese patients in a Bariatric clinic

Methods: We used baseline data collected from the Bariatric Institute at Cleveland Clinic Florida. This data included 1,289 morbidly obese patients from January 2004 to September 2008 after IRB approval. The data obtained included smoking status and number of cigarettes smoked per day (CSPD). We then divided our population in groups - Group A (between 1-9 CSPD), Group B (between 10-19 CSPD), Group C (between 20-29 CSPD), Group D (between 30-39 CSPD), Group E (between 40-49 CSPD), Group F (between 50-59 CSPD) and Group G (between 60-70 CSPD).

Results: From n = 1289 patients, 7.4% (n=96) were current smokers, 33% (n=32) males and 66.6% (n=64) females. The number of subjects per group in terms of cigarettes per day were Group A, 31.25% (n=30), Group B, 37.5% (n=36), Group C, 25% (n=24), Group D, 5% (n=5), Group E, (n=0), Group F, (n=0), Group G, 1% (n=1). (n=90) smoked between 1-30 cigarettes per day and only 6% (n=6) smoked 30-60 cigarettes per day, with a mean of 19 CSPD per patient.

Conclusion: The prevalence of smoking among the morbidly obese in this study was 7.4%, which is less in comparison with the prevalence of smoking by the general population (20.8%) in 2006. Also, the smoking group included a clear predominance of females and only 6% of the morbidly obese patients smoked more than 30 cigarettes per day.

SRF-108.

LAPAROSCOPIC SLEEVE GASTRECTOMY AS A FIRST STEP FOR A SECOND NON-BARIATRIC PROCEDURE

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SRF-107.
Background: Laparoscopic sleeve gastrectomy (LSG) is becoming a common and viable option in the management of morbid obesity. The aim of this study was to examine the effectiveness and safety of LSG as a primary step to a second non-bariatric procedure.

Methods: After IRB approval and following HIPPA guidelines, we conducted a retrospective review of prospectively collected database of all patients who underwent LSG from November 2004 to September 2008 at the Bariatric and Metabolic Institute. Patients underwent LSG as a primary procedure to a non-bariatric procedure. The degree of weight loss, preoperative BMI, postoperative BMI, morbidity and mortality were examined. Mean follow-up time was 7 months. Range (2 weeks to 12 months).

Results: LSG was performed in 18 patients who needed to undergo a non-bariatric procedure (knee replacement surgery, recurrent incisional hernia repair, laminectomy, kidney transplant, anterior cervical discectomy, nephrectomy). Mean preoperative BMI was 44.87 (33.36-58.87) kg/m2. Mean postoperative BMI was 35.79 (23.46-48.97) kg/m2. Mean preoperative weight was 275.4 (210.6-380) lb. Mean weight loss was 56.42 (11.8-152) lb. Mean postoperative weight was 218.98 (150.4-291.6) lb. Conversion rate to open surgery was zero. There was neither morbidity nor mortality in this series.

Conclusion: LSG appears to be an effective and safe surgical option for weight loss as a primary procedure step before a secondary non-bariatric procedure in high-risk patients.

SRF-109.

DO FOOD CRAVINGS AND THE CONSUMPTION OF CRAVED FOODS "NORMALIZE" AFTER BARIATRIC SURGERY?

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Background: No study to date has examined whether food cravings differ between bariatric surgery patients and normal weight individuals. Thus, the purpose of this study was to determine whether surgery patients differ from normal weight controls on food cravings and the consumption of craved foods at pre- and post-surgery.

Methods: Fifteen surgical patients (9 LapBand, 6 Roux-en-y; 93.3% female; M age=49.3y) completed the Food Cravings Inventory one month prior to and three months following bariatric surgery. Nineteen normal weight controls (94% female; M age=48.3y) completed the same inventory during the same time period. Data were analyzed using Multivariate Analyses of Variance.

Results: Pre-surgical patients had more cravings for high fat foods, carbohydrates and starches, and fast foods and more frequently consumed craved foods compared to normal weight controls (all p’s<.05). However, sweet cravings did not differ between the two groups (p=.81). Surgical patients significantly reduced their cravings for all food categories and their consumption of
craved foods after surgery (all p’s<.02). Also, after surgery, there were no significant differences between surgical patients and normal weight controls on food cravings for each of the categories assessed or on the consumption of craved foods (all p’s>.10).

**Conclusion:** These findings indicate that post-operative bariatric surgery patients experience a reduction in food cravings and consumption of craved foods to levels consistent with those of normal weight individuals. Future research should determine whether reductions in cravings are sustained over time and whether these reductions differ by surgery type (e.g., Lap-Band vs. Roux-en-Y).

SRF-110.

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**PROSPECTIVE STUDY OF OPHTHALMOLOGIC CHANGES ASSOCIATED WITH MORBID OBESITY**

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**Background:** Morbid obesity is a systemic disease which exerts significant harmful consequences on end organs, including the eyes. This prospective study was designed to investigate the prevalence of ophthalmologic abnormalities among bariatric surgical patients and to evaluate the association of these changes with comorbidities of obesity.

**Methods:** Patients (n=149) were prospectively recruited from morbidly obese individuals seeking bariatric surgery. Demographic, anthropomorphic, and comorbidity data were collected on all patients. Additionally, each patient underwent funduscopic imaging which was reviewed by an ophthalmologist who was masked to clinical information.

**Results:** Only 9 of the 149 patients were not included in this analysis due to technical issues that precluded imaging. The study population of 140 patients was predominantly female (83.8%), had mean age of 44.9 years, and had mean BMI of 47.8 kg/m². Only six patients (4.3%) exhibited ocular abnormalities. These ophthalmologic pathologies were optic disc edema, hyaloid remnant, optic nerve head drusen, epiretinal membrane, diabetic retinopathy, and congenital macular scar. Other than the presence of diabetic retinopathy in a diabetic patient, there were no specific associations between obesity-related comorbidities and the presence of ocular pathology.

**Conclusion:** Significant ocular changes were not frequent in this study population. Most interestingly, there was only one finding of optic disc edema, the abnormality expected in pseudotumor cerebri. In these preliminary results, we did not find a significant correlation between ophthalmologic pathology and comorbidities of obesity. The future direction will be to continue to accumulate patient data to more accurately describe the ocular effects of morbid obesity.