

Wednesday, November 5, 2014

Paper Session IV - Emerging Tech & Surgical Innovations

8:00am–10:00am

- 8:00am** **A401 – First Human Experience with a Novel, Swallowed, Self-emptying, and Excreted Intra-gastric Balloon for Weight Loss**
Main Presenter: Evzen Machytka, MD, PhD
Authors: Evzen Machytka, MD, PhD; Martina Bojkova, MD; Tomas Kupka, MD; Marek Buzga, MD, Ph.D.; Kathryn Stecco, MD, MA; Samuel Levy, MD; Shantanu Gaur, MD
- 8:15am** **A402 – Introducing SIPSS: Stomach Intestinal Pyloric Sparing Surgery - An Effective Modification fo Duodenal Switch (DS)**
Main Presenter: Brian Mitzman, MD
Authors: Brian Mitzman, MD; Daniel Cottam, MD; Mitchell Roslin, MD
- 8:30am** **A403 – Feasibility of Outpatient Bariatric Surgery for Morbid Obesity**
Main Presenter: Titus Duncan, MD
Authors: Titus Duncan, MD
- 8:45am** **A404 – Can We Rely on Preoperative Testing to Prevent Postoperative Reflux after Sleeve Gastrectomy?**
Main Presenter: Jayne Lieb, MD
Authors: Jayne Lieb, MD; Maureen Mcevoy, MD; William Walsh, B.A.; Aaron Weiss, Medical, Student; Aashna Chopra, Student; Lynn Merklinger, NP, RD, CDN; Ajay Chopra, MD
- 9:00am** **A405 – Preliminary Experience of the Endoscopic Duodeno-Jejunal Bypass Liner in Diabetic Obese Patients**
Main Presenter: Amador Garcia Ruiz
Authors: Amador Garcia Ruiz; Jordi Pujol Gebelli, MD, PhD; Manoel Galvao Neto, MD; Anna Casajoana Badia, MD; Eduard Espinet Coll, MD; Jordi Elvira López; Nuria Vilarrasa Garcia, Ph, D, MD
- 9:15am** **A406 – Safety of Ventral Hernia Repair with Mesh in Patients Undergoing Gastric Bypass**
Main Presenter: Tallal Zeni, MD
Authors: Tallal Zeni, MD; Sheila Thompson, RN; Jacob Roberts, DO

*** Presentation under consideration for the John Halverson Young Investigator Award**

- 8:00am** **A501 – Capturing Accurate Readmission Rates: Looking Beyond our Own Institutions**
 Main Presenter: Aurora Pryor, MD
 Authors: Dana Telem, MD; Wendy Patterson, MPH; Brittany Peoples, MS; Mark Talamini, MD; Aurora Pryor, MD
- 8:15am** **A502 – Outcomes of Different Treatment Options for Chronic Staple Line Disruption after Laparoscopic Sleeve Gastrectomy***
 Main Presenter: Hira Ahmad, MD
 Authors: Raul Rosenthal, MD; Morris Sasson, MD; Konstantinos Alfaras, MD, MSc; Hira Ahmad, MD; Emanuele Lo Menzo, MD, PhD; Samuel Szomstein, MD
- 8:30am** **A503 – The Rise and Rapid Demise of an Academic Single Surgeon Band Experience**
 Main Presenter: Ann Rogers, MD
 Authors: Ann Rogers, MD; Vinay Goyal, MD; Vikram Vattipally, MD
- 8:45am** **A504 – Laparoscopic Sleeve Gastrectomy Causes Immediate Weakening of the Valve: Intraoperative Assessment of LES Distensibility with Impedance Planimetry***
 Main Presenter: Jessica Reynolds, MD
 Authors: Jessica Reynolds, MD; Joerg Zehetner, MD, MMM; Nikolai Bildzukewicz, MD; Kulmeet Sandhu, MD; Peter Crookes, MD; John Lipham, MD; Namir Katkhouda, MD
- 9:00am** **A505 – Use of Self Expandable Endoscopic Stents for treatment of Postoperative Leaks in Bariatric Surgery**
 Main Presenter: Nicolas Quezada, MD
 Authors: Cristóbal Maiz, MD; Julián Hernández, Medicine, student; Serbastián Morales; César Muñoz, MD; Allan Sharp; Fernando Pimentel, MD; Camilo Boza, MD; Nicolás Quezada, MD
- 9:15am** **A506 – Current Trends in Concomitant Cholecystectomy During Roux-en-Y Gastric Bypass**
 Main Presenter: John Afthinos, MD
 Authors: John Afthinos, MD; Gurdeep Matharoo, MD; Karen E. Gibbs, MD
- 9:30am** **A507 – The timing of Postoperative Complications in Bariatric Surgery Patients.**
 Main Presenter: Konstantinos Spaniolas, MD
 Authors: Konstantinos Spaniolas, MD; John Pender, MD; William Chapman, MD; Walter Pories, MD
- 9:45am** **A508 – Nissen Fundoplication Over Roux-en-Y Gastric Bypass for Intractable Gastroesophageal Reflux***
 Main Presenter: Amit Taggar, M.D
 Authors: Amit Taggar, M.D; Pearl Ma, MD; Keith Boone, MD, FACS, FASMBS; Kelvin Higa, MD

* Presentation under consideration for the John Halverson Young Investigator Award

- 3:30pm** **A601 – Concomitant Removal of Gastric Band and Sleeve Gastrectomy: Analysis of Outcomes and Complications from the ACS-NSQIP Database.**
Main Presenter: Elie Ramly, MD
Authors: Elie Ramly, MD; Ramzi Alami, MD; Hani Tamim, PhD; Rami Kantar, MD; Elias Elias, MD, MPH; Ghassan Chamseddine; Bassem Safadi, MD
- 3:45pm** **A602 – The Effect of Bariatric Surgery on Diabetic Eye Disease Progression**
Main Presenter: Amin Amin, MB, ChB, (Hons), BSc
Authors: Amin Amin, MB, ChB, (Hons), BSc; Abd Tahrani, MD, MRCP, MMedSci, PhD
- 4:00pm** **A603 – Remission and Relapse of Advanced Non-alcoholic Fatty Liver Disease (NAFLD) during 5 Years after Bariatric Surgery.**
Main Presenter: Grégory Baud, MD
Authors: Grégory Baud, MD; Robert Caiazzo, MD, PhD; Guillaume Lassailly, MD; Emmanuelle Leteurtre, MD, PhD; Hélène Verkindt, MD, PhD; Fanelly Torres, MD; Marie Pigeyre, MD; Philippe Mathurin, MD, PhD; Francois Pattou, MD
- 4:15pm** **A604 – Preliminary Analysis of Gene Candidate Single Nucleotide Polymorphisms (SNP) Associated to Postoperative Weight Loss in Mexican Mestizo Obese Patients Undergoing Roux-en-Y Gastric Bypass (RYGB).**
Main Presenter: Miguel Herrera, MD, PhD
Authors: David Velázquez-Fernández, MD, MSc, PhD; Gabriela Mercado-Celis, MD, MSc, PhD; Pablo León, MD; Donaji Rodríguez-Ortíz, MD; Eduardo Del Villar, MD; Diana Clavellina, MD; Juliana Baglietto Azeredo, MD; Eduardo Vidrio, MD; Jeny Flores, Tecnico, de, Laboratorio; Hugo Sánchez, MD; Maureen Mosti, RN, CBN; Miguel Herrera, MD, PhD
- 4:30pm** **A605 – Laparoscopic Roux-en-Y Gastric Bypass for Failed Gastric Band-Mid-Term Outcomes in 635 Patients**
Main Presenter: Pierre Fournier, MD
Authors: Pierre Fournier, MD; Daniel Gero, MD; Lara Ribeiro-Parenti, MD; Denis Chosidow; Anna Dayer-Jankechova; Pierre Alleman; Jean-Pierre Marmuse, MD; Michel Suter, MD
- 4:45pm** **A606 – Effect of Bariatric Surgery on Non-alcoholic Fatty Liver Disease in Indian Population—Preliminary Results of the NASHOST Trial(CTRI/2013/01/003300)**
Main Presenter: Praveen Raj, MS,DNB
Authors: Praveen Raj, MS,DNB; Saravana Kumar. Dr., MBBS, DNB, (, Gen.Surgery), FMAS; C Palanivelu, MS.,MCh.,MNAMS.,FACS.,FRCS(Ed).,DS.c.,

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- 3:30pm** **A910 – Hill Procedure for Recurrent Gastroesophageal Reflux Post Roux-en-Y Gastric Bypass**
Main Presenter: Radu Pescarus, MD
Authors: Radu Pescarus, MD; Eran Shlomovitz, MD; Christy Dunst, MD; Lee Swanstrom, MD; Kevin Reavis, MD
- 3:40pm** **A911 – Revision Surgery for Weight Redivism after Laparoscopic Roux-en-Y Gastric Bypass (LRYGB)**
Main Presenter: Pornthep Prathanvanich, MD
Authors: Bipan Chand, MD; Pornthep Prathanvanich, MD
- 3:50pm** **A912 – Laparoscopic Conversion of a Non Divided Gastric Bypass to a divided Gastric Bypass for a Gastro Gastric fistula.**
Main Presenter: Rana Pullatt
Authors: Rana Pullatt; Karl Byrne, MD
- 4:00pm** **A913 – Days You Will Never Forget in Bariatric Surgery**
Main Presenter: Alberto Gallo, MD
Authors: Jorge Nefa; Pablo Omelanczuk, MD; Alberto Gallo, MD; Santiago Horgan, MD
- 4:10pm** **A914 – Revisional surgery after single-anastomosis duodeno-ileal bypass with sleeve gastric tomy (SADI-S)**
Main Presenter: Andrés Sánchez-Pernaute, MD, PhD
Authors: Miguel Angel Rubio, MD; Pablo Talavera, MD; Elia Pérez-Aguirre; Antonio Torres, MD, PhD
- 4:20pm** **A915 – Wilkinson wrap conversion To Roux-en-Y Gastric Bypass**
Main Presenter: Amit Taggar, M.D
Authors: Amit Taggar, M.D; Steve Chang, M.D; Saber Ghiassi, MD, MPH; Kelvin Higa, MD; Keith Boone, MD, FACS, FASMBS
- 4:30pm** **A916 – Laparoscopic Conversion of Gastric Bypass to Sleeve Gastrectomy and Duodenal Switch in 2 Stages for Weight Regain.**
Main Presenter: Lars Nelson, MD
Authors: Lars Nelson, MD; Andre Teixeira, MD; Muhammad Jawad, MD
- 4:40pm** **A917 – Distal Sleeve Gastrectomy Obstruction Due to Remanent Gastric Fundus: Revisional Surgery**
Main Presenter: Carmen Santander, MD
Authors: William Awad, MD; Alvaro Garay; Cristian Martinez, MD; Carmen Santander, MD
- 4:50pm** **A918 – Laparoscopic Conversion from Duodenal Switch to Gastric Bypass**
Main Presenter: Stephan S. Axer, MD
Authors: Stephan S. Axer, MD; Leif Hoffman, MD

Wednesday, November 5, 2014

Paper Session IV - Emerging Tech & Surgical Innovations

8:00am–10:00am

A401

First human experience with a novel, swallowed, self-emptying, and excreted intragastric balloon for weight loss

Evzen Machytka *Ostrava Czech republic*¹, Martina Bojkova¹, Tomas Kupka *Ostrava Poruba Czech Republic*¹, Marek Buzga *Ostrava Czech republic*¹, Kathryn Stecco *SAN JOSE California*², Samuel Levy *Wellesley Massachusetts*², Shantanu Gaur *Wellesley MA*² University of Ostrava¹ Allurion Technologies, Inc.²

Background: The intragastric balloon (IGB) has been used effectively for decades as a weight loss device. Current generation IGBs require endoscopy for placement and removal and have not been designed to safely transit the gastrointestinal (GI) tract. The need for endoscopy and the risk of spontaneous balloon deflation and small bowel obstruction have limited the use of IGB therapy. The aim of this pilot study was to assess the feasibility and safety of the Elipse™ (Allurion Technologies, Wellesley, MA USA), a swallowed, self-emptying, and excreted IGB.

Methods: Eight patients (7 female / 1 male) were enrolled after Ethics Committee and Competent Authority approvals were obtained. Each patient swallowed one Elipse™ device which was filled with 450mL bacteriostatic water through a delivery catheter. The catheter was then removed. Each device was designed to remain in the stomach for 6 weeks, empty, and pass in the stool. The patients were not prescribed a specific diet or exercise plan and were not pre-medicated with anti-emetics. Mean baseline patient characteristics were BMI 31.4 kg/m² (range: 27.6 – 35.9), total body weight 88.6kg (range: 75.0-113.2), and excess weight 28.6kg (range: 15.9-45.5).

Results: All 8 patients successfully swallowed the Elipse™ capsule. All devices were successfully filled to 450mL (mean fill time = 15 minutes), and intragastric positioning was confirmed on ultrasound and x-ray. As expected with balloon therapy, 7/8 patients experienced nausea and 5/8 experienced vomiting in the first week of treatment. All episodes were treated successfully with medication. No patients had

vomiting after the first week. Six week post-treatment day data demonstrated mean total body weight loss of 2.4kg (range: 0.7-6.3) and mean % excess weight loss of 12% (range: 4%-40%). In one patient, the balloon appeared partially collapsed on ultrasound after 11 days of therapy. The balloon was endoscopically punctured and passed in the stool after 4 days. One asymptomatic patient elected to have the balloon endoscopically punctured after 19 days of therapy, because she “no longer enjoyed eating.” The balloon passed in the stool after 4 days. In both cases, careful endoscopic examination of the upper GI tract showed no abnormalities. In the remaining 6 patients, the balloon emptied and passed in the stool without endoscopic intervention after having remained in the stomach for 6 weeks.

Conclusions: This pilot study demonstrates the feasibility and safety of the Elipse™, a swallowed, self-emptying, and excreted IGB. The ease of administration and natural passage of the Elipse™ may improve the safety, customizability, and accessibility of IGB weight loss therapy. Future studies will assess larger and longer term Elipse™ devices and will be designed to assess weight loss in the presence of a prescribed diet.

A402

Introducing SIPSS: Stomach Intestinal Pyloric Sparing Surgery - An Effective Modification fo Duodenal Switch (DS)

Brian Mitzman *NY NY*¹, Daniel Cottam *Salt Lake City UT*², Mitchell Roslin *New York NY*² Northshore LIJ - Lenox Hill Hospital¹ Bariatric Medicine Institute²

Background: Duodenal Switch is known to be an extremely effective weight loss procedure with excellent resolution of co morbid conditions. Despite favorable long term results for weight loss and diabetes, it represents less than 5% of currently performed bariatric procedures. Potential reasons include the risk of micronutrient deficiency, technical difficulty and concerns about frequent bowel movements. SIPSS is a modification of the procedure that is simpler, reduces the incidence of diarrhea and nutritional deficiencies, yet offers effective

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weight loss.

Methods: Between April 2013 and April 2014, 105 SIPSS procedures were performed by two surgeons in New York(27), Utah(75) and Middle East (3). 77 were female and 28 male, mean age 42.53 (range 19-78) Mean BMI was 50.5 (range 36-80) The procedure involves calibrating the sleeve over a 42 french bougie, division of the duodenum with a 3 cm cuff, and attachment to the small bowel utilizing a hand sutured loop technique 3 meters from the ilio-ceccal valve. Patients were followed at their respective centers with protocols identical to standard DS. Weight loss was measured at follow up visits, phone, and email to obtain metrics. Simple students t test was used to confirm statistical significance of weight loss.

Results: All cases were completed via laparoscope. Mean hospital stay was 2.4 days (range 2 -10) There were no unplanned returns to OR or leaks. 4 patients required blood transfusion (2 Units) and one with BMI 70 had rhabdomyolysis. 103 were primary bariatric procedures and 2 band removal to sipss. 3 month weight loss was available for 65 pts: mean BMI 50.2 with mean wt loss of 10.3 bmi units (range 7-16) or 33% mean excess wt loss ($p<.001$). 6 month results were available for 44 pts: mean BMI 52.5 mean wt loss of 14.8 BMI units (range 10-24) or 54% excess ($p<.001$) BMI. 9 month data was available for 19 patients: mean BMI 53 with mean wt loss of 18 BMI units (range13-26) or 78% excess BMI units ($p<.001$). There were two re admissions for poor intake that resolved with hydration. No patient has required therapeutic endoscopy or diagnostic laparoscopic procedure. One patient has percutaneous drain placed for potentially infected hematoma. There have been no strictures, small bowel obstructions, admissions for diarrhea or marginal ulcers to date

Conclusions: Our early results show that SIPSS is an effective weight loss procedure with early efficacy superior to historical results of RYGB and VSG. By avoiding a roux limb and second anastomosis, our early data suggests that the incidence of certain morbid conditions may be reduced. Theoretically, SIPSS offers many advantages. The gastrectomy reduces ghrelin, attachment 3 meters from colon activates hind gut receptors, and the adequate length avoids consequences of short bowel syndrome. Further investigation will focus of quantifying gastrointestinal side effects and quality of life as compared to other procedures

that combine gastric reduction and small bowel manipulation.

A403

Feasibility of Outpatient Bariatric Surgery for Morbid Obesity

Titus Duncan *Atlanta GA*

Peachtree Surgical and Bariatrics

Background: The vast majority of bariatric surgical procedures are performed in a hospital setting with an average hospital stay of 1 to 3 days. Ongoing advances in surgical technology coupled with the decreased trauma/stress effect provided through laparoscopic surgery and major advances in anesthesia delivery, have led to improved outcomes of stapled bariatric surgery over the traditional open technique. We have observed that certain "low risk" patients, as defined by risk assessment models, can safely undergo laparoscopic bariatric surgery on an ambulatory outpatient basis. We used a risk stratification-scoring system to determine feasibility and safety of performing stapling bariatric procedures on select patients on an outpatient basis. We report our results of patients who underwent a bariatric stapling procedure (laparoscopic gastric bypass or sleeve gastrectomy) on an outpatient basis.

Methods: We used a hybrid scoring system based on clinical parameters aimed to predict adverse outcomes on post bariatric surgery patients. Using these criteria patients were selected to undergo laparoscopic gastric bypass or sleeve gastrectomy either on an ambulatory outpatient basis, 23-hour outpatient or as an inpatient. Patients having one or more of these clinical conditions were selected to undergo bariatric surgery on a 23-hour outpatient or inpatient basis. Three hundred and twenty seven (30%) patients underwent surgery performed on an ambulatory outpatient basis. Of those patients qualifying to have surgery performed on an ambulatory basis, 171 patients underwent laparoscopic gastric bypass surgery and 156 patients had sleeve gastrectomy.

Results: Three hundred and twenty seven (31%) surgeries in this series were performed on an ambulatory outpatient basis. There were 16 (4.5%) patients in the outpatient ambulatory group that had to be readmitted for post-operative complications. Eight patients had to be returned to the operating room following readmission. There were 2 patients (both gastric bypass) reoperated for post-operative

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anastomotic leak (0.6%). Two patients (0.6%) were returned to the operating room for staple line bleed (one gastric bypass, 1 sleeve gastrectomy). Four patients had to have surgery for postoperative bowel obstruction Ten patients were readmitted for non-life threatening complications (i.e. dehydration, abdominal pain, nausea, etc.). Nine patients (2.7%) were seen in the emergency room and released. There were no deaths in this outpatient surgery group. The majority of complications occurred 9.8 days (range 1 – 14 days) following surgery.

Conclusions: A selection process utilizing risk stratification scores, may provide a tool in selecting patients that may be safely performed as outpatients. Further prospective studies, possibly utilizing validated scoring systems, are needed to answer whether laparoscopic stapling bariatric procedures may be safely performed in select patients on an ambulatory outpatient basis.

A404

Can we rely on preoperative testing to prevent postoperative reflux after sleeve gastrectomy?

Jayne Lieb *Bronx NY*¹, Maureen Mcevoy *Bronx NY*¹, William Walsh *Greenlawn New York*¹, Aaron Weiss *Bronx NY*¹, Aashna Chopra¹, Lynn Merklinger *Bronx New York*¹, Ajay Chopra *Bronx NY*¹
Jacobi Medical Center¹

Background: Laparoscopic sleeve gastrectomy (LSG) has been becoming more popular as surgical treatment for morbid obesity. Although this procedure has a low incidence of morbidity and mortality, some patients develop new or worsening symptoms of gastro-esophageal reflux (GER) after the LSG. We reviewed our data including our preoperative testing in order to describe our experience with reflux after LSG. We attempted to find whether we can predict postoperative GER based on preoperative upper gastrointestinal studies.

Methods: We performed a retrospective review of our prospectively collected database on 350 consecutive patients who received LSG at our institution between January 2010 and June 2013. We identified the patients that developed new GER symptoms and those that had preexisting GER. We evaluated the results of preoperative Esophago gastro duodenoscopy (EGD) and upper gastro-intestinal contrast studies (UGI). Specifically, we recorded EGD

findings of esophagitis, gastritis or Barrett's esophagus along with the findings of GER and hiatal hernia on UGI.

Results: Of the 350 patients reviewed, there was sufficient follow up in 296 patients. The median age at surgery was 41 and the median BMI was 45.3. The male to female ratio was 1:10. 174 (59%) patients had no preexisting reflux and 122 (41%) patients had GER symptoms of varying severity preoperatively. 345 patients (98.5%) received an EGD prior to surgery. 31 (25.4%) of the patients that had preexisting GER symptoms also showed signs of esophagitis on EGD. 16 of these patients (52%) had resolution of symptoms while 15 patients (48%) continued to have symptoms postoperatively. Of the 345 patients that had preoperative EGD's, 119 (34%) patients were diagnosed with a hiatal hernia. Only 41 (34%) patients with EGD diagnosis of hiatal hernia were found to have a hernia at operation and underwent a surgical repair. 16 patients (7%) who showed no hiatal hernia on EGD had a hiatal hernia diagnosed intra-operatively that was repaired. Of the 29 patients with preoperative reflux and surgical intervention for a hiatal hernia, 18 (62%) had no reflux symptoms postoperatively 253 patients (87%) were evaluated with an UGIS prior to surgery. Of the 139 (54%) patients who were negative for preoperative reflux on UGI, 41 (29%) developed postoperative GER symptoms. There were 114 (45%) patients with evidence of reflux reported on preoperative UGI, 62 (54%) were symptomatic. 21 (34%) of these patients continued to have symptoms postoperatively. Of the 52 (46%) patients with no preexisting symptoms but positive for GER on UGI, only 7 (13%) had GER symptoms postoperatively.

Conclusions: We did not find that there was a good correlation with preoperative EGD and UGI findings with the patient's symptoms and postoperative outcome. There is no way to predict based on these modalities as to which patients will develop postoperative GER symptoms. However, we do believe that hiatal hernia repairs reduce the incidence of postoperative reflux in patients with preoperative symptoms. An aggressive approach to hiatal exploration and repair if a hernia is found may reduce new onset of GER symptoms postoperatively.

* Presentation under consideration for the John Halverson Young Investigator Award

A405

Preliminary experience of the endoscopic duodeno-jejunal bypass liner in diabetic obese patients.

Amador Garcia Ruiz *MADRID*¹, Jordi Pujol Gebelli *Barcelona Spain*¹, Manoel Galvao Neto *Sao Paulo Sao Paulo*², Anna Casajoana Badia *Hospitalet de Llobregat Barcelona-Spain*², Eduard Espinet Coll *Barcelona España*³, Jordi Elvira López *Barcelona Spain*³, Nuria Vilarrasa Garcia *L'Hospitalet de Llobregat Barcelona*³
HOSPITAL UNIVERSITARIO DE BELLVITGE¹ GASTRO OBESO CENTER, BRAZIL² GASTRODEX. HOSPITAL QUIRON DEXEUS³

Background: Diabetes Mellitus and Obesity are both components of the metabolic syndrome. Bariatric and metabolic surgery has already show good results both in weight loss and glycemic homeostasis. The endoscopic duodeno-jejunal bypass liner is a new device that emulates the metabolic and malabsorptive effect of the Roux-en-Y Gastric bypass. This study evaluates the preliminary results of this new device.

Methods: We evaluated the first patients where the duodeno-jejunal bypass liner was implanted. Class I and II obese and diabetic patients were included. Patients taking antiagregant or anticoagulant drugs and both with previous gastrointestinal surgery were excluded. Patients were planned to keep the implant for one year. We analyzed parameters related to weight loss and metabolic control of type 2 diabetes. Morbidity and mortality both for implantation and explantation were also evaluated.

Results: From October 2012 28 patients were eligible and the duodeno-jejunal bypass liner was implanted. 14 were men. Mean age was 54 years old (range from 33 to 65) and BMI 34.03kg/m² (range 29 to 41) and had an average of 179 months of diabetes evolution (range 5 to 351). At the time of the implantation patients needed an average of 2 antidiabetic drugs, and just 2 did not need insulin (mean insulin dosage 56U per day). Fasting glycemia was 11.9mmol/L (5.4 to 27.5mmol/L) and HbA1c 8.75% (5.75 to 12.8). Only 4 patients have appropriate metabolic control with medical treatment. There were no complications during the implant and in last 5 cases patients were in a day case setting, the first ones stayed overnight. 14 patients had the device explanted. Only in 2

cases it had to be explanted earlier, one due to intolerance and the other to a complicated cholecystitis. At the time of the retrieval patients had a fasting glycemia of 10.5mmol/L and HbA1c 8.4%. They needed less than 2 antidiabetic drugs and 8 out of all did not longer need insulin. 6 cases had normal biochemistry and in 3 cases there was remission of Type 2 diabetes mellitus. Patients with better preliminary control and pancreatic reserve did better in all parameters.

Conclusions: The endoscopic duodeno-jejunal bypass liner is a new treatment with low morbidity and some good promising results in our cohort. These preliminary data showed that even in patients with really advanced diabetes, the device improved the metabolic control of those patients and in some cases insulin was retrieved. We also observed that in some patients partial remission was also achieved.

A406

Safety of Ventral Hernia Repair with Mesh in Patients Undergoing Gastric Bypass

Tallal Zeni *LIVONIA MI*¹, Sheila Thompson *Livonia MI*¹, Jacob Roberts *Livonia MI*¹
St. Mary Mercy Hospital¹

Background: Few studies have addressed the optimal management of patients with ventral/incisional hernias (VH) who desire to proceed with laparoscopic gastric bypass (LGB) surgery. This review aims to reveal our experience in performing LGB with concomitant VH repair in this group of patients.

Methods: A retrospective review of 1108 consecutive patients who had a VH and LGB from September 2005 to January 2014 was conducted. Patients who underwent umbilical hernia repair were not included and neither were patients who underwent either sleeve gastrectomy or a lap band.

Results: Fifty six patients (5.1%) who underwent LGB had either concomitant repair (n=53) or repair of the VH then staged LGB (n=3). Another three patients underwent first stage repair of the hernia but did not proceed with bariatric surgery due to either hepatitis C induced cirrhosis (n=1) or patient desire (n=2). The mean age was 49 years (range 22-65) and the mean BMI was 50.2 (37.1 – 70.6). Thirty four patients underwent repair with mesh (61%): thirty patients underwent repair with either Physiomesh or Proceed (Ethicon), two patients

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with C-Qur (Atrium), and two patients with SIS (Cook). Mean length of stay was 4 days (range 2-31 days). There was one mesh infection that required explant (2.9%). There were two acute recurrences, one of which resulted in mortality due to mesenteric infarction.
Conclusions: Ventral/incisional hernia repair

with light weight polypropylene mesh can be done safely with a low risk of mesh infection in patients undergoing LGB. The high risk of mortality due to acute recurrence warrants consideration of liberal mesh placement.

Paper Session V - Complications

8:00am–10:00am

A501

Capturing accurate readmission rates: Looking beyond our own institutions

Dana Telem *Stony Brook NY*¹, Wendy Patterson *Albany NY*², Brittany Peoples *Albany New York*², Mark Talamini², Aurora Pryor *Stony Brook NY*²

Stony Brook University Medical Center¹ NY State Department of Health²

Background: Correctly quantifying and qualifying hospital readmissions following bariatric surgery is a high priority as readmission is considered a surrogate marker for patient outcome. Current means for readmission assessment typically only captures admissions to the index hospitals of procedure. This likely underestimates true hospital utilization and impacts outcomes assessments. Determining the primary cause of these admissions is also crucial in an effort to prevent the health care burden of preventable readmissions. The purpose of this study is to ascertain readmission rates, location and cause of readmission within the 30-day and 6-month postoperative periods.

Methods: Using the New York State SPARCS longitudinal administrative database 22,139 patients who underwent a primary laparoscopic bariatric procedure from 2006-2008 were identified. SPARCS captures all inpatient, outpatient and emergency room discharges in New York State. Patients are assigned unique identifiers allowing for tracking. Patients were tracked over a 30-days and 6-month time period to identify presence of readmission, location of readmission in relation to index hospital of operation and cause of readmission. Cause of readmission was determined by admission primary diagnosis code.

Results: Of the 22,139, 12,439 (56.2%) underwent laparoscopic Roux-en-Y gastric bypass, 9,099 (41.1%) adjustable gastric banding and 601 (2.7%) sleeve gastrectomy. The overall 30-day readmission rate was 5.4% and 10% within 6-months. A total of 1,188

admissions occurred within 30-days and 2,220 within 6-months. Of the 1,188 readmissions within 30-days, 1062 (89.4%) occurred at the index hospital and 126 (10.6%) at a different institution. Of the 2,220 admissions within 6-months, 1692 (76.2%) admissions occurred at the index hospital and 528 (23.8%) at another hospital. The submitted table represents the top 5 diagnosis codes for readmission both at the index and other hospital at 30-days and 6-months.

Conclusions: Conclusion: Readmission rates are underestimated when only accounting for hospital of index procedure – 10.6% of patients within 30-days and 24% of patients within 6-months were admitted to other hospitals. System measures designed to capture all readmissions, not just those to index hospitals, are crucial to accurate outcomes assessment and reporting. The majority of admissions, both at index and other hospital, were operative related complications many of which are potentially preventable. Further investigation into the population admitted to non-index hospitals is currently underway.

A502

Outcomes of Different Treatment Options for Chronic Staple Line Disruption after Laparoscopic Sleeve Gastrectomy

Raul Rosenthal *Weston FL*¹, Morris Sasson *Weston FL*¹, Konstantinos Alfaras *Weston FL*¹, Hira Ahmad *Weston FL*¹, Emanuele Lo Menzo *Weston FL*¹, Samuel Szomstein *North Miami Beach FL*¹
Cleveland Clinic Florida¹

Background: Laparoscopic sleeve gastrectomy is now the most common weight loss surgery procedure performed in the United States. The procedure's most serious surgical complication is staple-line disruption (SLD) and leakage. We present a retrospective review of chronic SLD management techniques and cure rates. Special focus is given to the technique of proximal

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gastrectomy and reconstruction with Roux-en-Y esophagojejunostomy (PGEJ) and its cure rate.

Methods: A retrospective review was performed of the charts of all patients who had staple-line disruptions after undergoing laparoscopic sleeve gastrectomy. All the PGEJ were performed laparoscopically.

Results: Thirty-one patients had chronic staple-line disruption following their sleeve gastrectomy. Patients were divided into two groups based on their staple line disruption treatment technique; Group A (PGEJ), Group B (other modalities—4 drainage, 3 wedge resections, 2 primary closures, 2 t-tubes, 1 RYGB). Group A (n=19 patients) had 1 re-leak, which closed spontaneously with 2 weeks of parenteral nutrition. Group B (n=12 patients) had 5 re-leaks, requiring re-intervention—4 percutaneous drainage, 1 RYGB. The cure rate for patients who underwent PGEJ was 94.8%. The cure rate for patients who were treated with a different approach was 58.3%, $p=0.01$.

Conclusions: The striking difference in cure rates between the two treatment groups leads one to believe that a PGEJ is a safe and effective procedure to treat staple-line disruptions after sleeve gastrectomy in the hands of experienced surgeons. This operation would spare the patient morbidity often associated with other treatment modalities.

A503

The Rise and Rapid Demise of an Academic Single Surgeon Band Experience

Ann Rogers *Hershey PA*¹, Vinay Goyal *Hershey Pennsylvania*², Vikram Vattipally *hershey pa*²
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Background: Adjustable gastric banding has been a popular bariatric procedure because of perceived safety and noninvasiveness. Its popularity is waning due to high reoperation rates and failure of significant weight loss, although many surgeons still offer banding on request. Pennsylvania insurers did not cover gastric banding until 2006, after which time this program offered and performed it in comparatively high numbers. Despite current reports from a few select programs about success with the band, we had significant problems with compliance, maladaptive eating, anatomic and device complications, and need for reoperations. We ceased offering the band after only four years.

Methods: All patients undergoing placement of an adjustable gastric band as an initial bariatric procedure by a single surgeon at a university hospital with a bariatric fellowship from to January 1, 2007 through June 30, 2010 were retrospectively reviewed. Preoperative BMI, and BMI at one and two years post-band were recorded. Subsequent surgical procedures undergone as a direct result of having had a band were tallied. Endoscopic and radiologic procedures were excluded. For patients undergoing conversion to a second bariatric procedure (gastric bypass or sleeve gastrectomy), one-year post-conversion BMI was recorded. Mortality and postoperative follow-up were also recorded.

Results: 142 patients received an AP Standard, AP Large Lapband or Realize Band during the study period. Mean preoperative BMI was 44.7 (range 35.5-65). Mean BMI one and two years post-band were 39.4 (range 25-53) and 39.3 (range 27-64). 71 patients (50%) required subsequent procedures as a direct result of banding: 12 port revisions, 2 port removals for intractable infection, 3 band removals for erosion, 25 band removals for prolapse, pain or dysphagia, 5 hiatal hernia repairs, 37 conversions to bypass and 3 to sleeve for inadequate weight loss, 5 cholecystectomies, and 1 laparotomy for perforated ulcer in the immediate postoperative period. This represented our one death within 90 days. Another patient died four months after band removal complicated by major vascular injury. Of the 71 patients needing reoperation, 16 underwent two procedures and 3 underwent three. Reoperations directly attributed to a conversion procedure, (e.g. internal hernia), were excluded. Mean BMI one year post-conversion was 31.7 (range 25-41). 10.4% and 17.8% of band patients were lost to follow-up at one and two years post-band, respectively. 22.5% of conversion patients were lost to follow-up at one year. There were no deaths among the conversion patients.

Conclusions: A four-year band experience is described. Two early mortalities [%], in a series with no deaths after bypass, sleeve, revision or conversion, was notable. Limited weight loss due to esophageal dysmotility and/or maladaptive eating, and excessive need for revisions and subsequent procedures, were similarly unacceptable. One year BMI decrease from baseline after conversion to either bypass or sleeve was significantly better than one year

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BMI loss with the band, although follow-up was slightly worse. Overall, these results lead us to abandon gastric banding as a weight loss procedure, and this likely represents a general trend.

A504

Laparoscopic Sleeve Gastrectomy Causes Immediate Weakening of the Valve: Intraoperative Assessment of LES Distensibility with Impedance Planimetry

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Background: Morbid obesity is associated with an increase of GERD. While laparoscopic sleeve gastrectomy (LSG) results in successful weight-loss and reduction of co-morbidities, the incidence of new-onset GERD is high. The aim of the study was to assess LES distensibility with impedance planimetry (Endo-Flip), and correlate it with postoperative GERD symptoms.

Methods: All patients undergoing LSG were prospectively enrolled in this observational study. Baseline GERD-HRQL scores off PPIs were obtained. The EndoFLIP EF-325 functional luminal probe was used to measure LES distensibility after establishing the pneumoperitoneum and after stapling of the gastric sleeve, which was performed in a standardized fashion by two surgeons. All patients were asked to complete GERD-HRQLs at 3 months postoperative after discontinuing PPIs for 5 days.

Results: There were 8 patients (3M/5F) with a mean age of 51 years (32-71 years), BMI of 44 kg/m² (34-58) and a mean preoperative GERD-HRQL score of 3.4 (0-14). Mean LES distensibility increased from 0.91 +0.42 before LSG to 2.7 + 1.6 after LSG (p=0.020). [Figure] 5/8 patients were 3 months post-operative and their post-operative GERD-HRQL score was 1.6+3.6 compared to 3.4+6.1 pre-operative (p=0.604). New-onset GERD was described in 1/5 patients with a postoperative GERD-HRQL score of 8. 1/5 patients had remission of GERD and the remaining 3/5 patients did not have GERD symptoms before or after LSG at 3 month follow up.

Conclusions: Preliminary data shows an immediate significant increase in LES distensibility after stapling the gastric sleeve. Disruption of the sling/clasp fibers by the staple line could be one explanation of the high incidence of new-onset GERD after laparoscopic sleeve gastrectomy.

A505

Use of Self Expandable Endoscopic Stents for treatment of Postoperative Leaks in Bariatric Surgery

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Background: Bariatric surgery (BS) is the most effective treatment for obesity, due to its good long-term weight and comorbid diseases control. Postoperative leaks are one of the most feared complications in these procedures, being reported in the order of 1 to 5% of Laparoscopic Roux-Y Gastric Bypass (LRYGB) and Laparoscopic Sleeve Gastrectomy (LSG). There is a wide spectrum of alternatives for its treatment ranging from nil per os, drainage of collections and sepsis management to prosthesis and surgery. The aim of this study was to report our experience with Self Expandable Endoscopic Stents (SEES) for the treatment of leaks.

Methods: We conducted a retrospective analysis of our BS electronic database from January 2007 to December 2013. All patients with leak treated with SEES after BS were included. Demographic data, comorbid diseases and type of BS were recorded. Mean times from BS to leak diagnosis, to SEES placement and to complete resolution were calculated. We compared fistula resolution time between two groups: those patients who were treated only with SEES or received simultaneous surgery, and those treated initially by surgery and who had SEES placed later. Statistical analysis was performed with SPSS 20.0 software. Significant statistical difference was considered when p<0.05.

Results: We identified 29 patients, 17 (59%) women, mean age 37.1±11.8 (19-65). The preoperative BMI was 37.9±4.8 kg/m². In 19

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patients (65.5%) the leak was located in the upper third of the stapler line of a LSG and in 9 (34.5%) in the gastric pouch of a LRYGB. Mean time from surgery to leak diagnosis was 9.8 ± 10.2 (1-51) days, and SEES were installed in average 22.4 ± 27.3 (0-104) days after the leak diagnosis. Twenty-one (72%) patients also had abdominal exploration for sepsis control. There were 16 migrations in 10 (31%) patients, one (3%) stent fracture, one alimentary limb opening (3%) and 5 patients (17%) who required a second stent due to fistula persistence. Mean length of SEES use was 80.7 ± 63.7 (1-299) days. Patients who had SEES as the first treatment (with or without simultaneous reoperation) had a shorter leak closure time (57.7 ± 36.2 vs 139.6 ± 92.1 days; $p=0.01$). We also explored the influence of timing of SEES placement. Notably, SEES placement in the first week was associated with a significant shorter fistula closure time when compared with later placement (59.1 ± 39.6 vs 138.6 ± 92.1 days; $p=0.013$). In total, 28 (96.5%) patients achieved successful fistula closure with SEES. **Conclusions:** Use of SEES for leak treatment is feasible, safe and effective. Here we show a large series with good results in leaks and fistulas treatment after BS with the use of these devices. Notably, we found that the early use of SEES was associated with a shorter length of fistula resolution, so in our opinion after early recognition of a leak, prompt SEES placement should be considered the first line of treatment, with or without associated surgery for collection drain and peritoneal washout.

A506

Current Trends in Concomitant Cholecystectomy During Roux-en-Y Gastric Bypass

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Staten Island University Hospital¹

Background: Debate continues to exist regarding the concomitant performance of cholecystectomy (C) at the time of Roux-en-Y Gastric Bypass (RYGB), whether performed laparoscopically (LRYGB) or open (ORYGB). We hypothesized that cholecystectomy performed concomitantly with RYGB would increase in-hospital morbidity and length of stay. We sought to use a large national database to evaluate this hypothesis.

Methods: The Nationwide Inpatient Sample (NIS) Database was queried for the years 2005 to 2010 for RYGB (both open and laparoscopic) operations performed with or without concomitant cholecystectomy. The patients' age and comorbid conditions were characterized. In-hospital morbidity and mortality were evaluated. Bivariate logistic regression was then performed to evaluate for risk factors predicting morbidity, mortality and common bile duct injury. **Results:** A total of 368,850 LRYGB were identified, of which 16,097 (4.4%) were LRYGB/C. A total of 56,224 ORYGB were identified, of which 9,575 (17%) were ORYGB/C. There were 14 common bile duct injuries identified in the LRYGB/C group (0.09%) and none in the ORYGB/C group. Overall morbidity for the LRYGB/C group was greater than for LRYGB (3.4% vs. 3%, $p < 0.001$). Mortality was likewise greater for the LRYGB/C group (0.22% vs. 0.08, $p < 0.0001$). Length of stay was also statistically significantly longer for the LRYGB/C group ($2.4 + 3$ vs. $2.5 + 2.3$ days, $p < 0.0001$). In multivariate analysis, LRYGB/C was an independent predictor of mortality (OR 2.7, $p < 0.0001$) and common bile duct injury (OR 24.5, $p < 0.0001$).

Conclusions: Laparoscopic Roux-en-Y Gastric Bypass with concurrent cholecystectomy conferred a higher rate of mortality and a significantly higher rate of common bile duct injury. Serious consideration should be given to concomitant cholecystectomy being performed during LRYGB. Furthermore, this database only captures common bile duct injuries identified during the in-hospital admission. The rate is potentially higher in an extended observation period.

A507

The Timing of Postoperative Complications in Bariatric Surgery Patients

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Background: Complications following bariatric surgery are uncommon but life threatening and potentially devastating to the patient and family. The aim of this study was to assess the timing of anastomotic leaks and venous thromboembolism in patients undergoing bariatric surgery.

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Methods: The ACS-NSQIP database from 2006 to 2011 was queried using Current Procedural Terminology codes for bariatric surgery and diagnoses for morbid obesity. Data on patient demographics, baseline comorbidities, procedural events, and postoperative occurrences were analyzed. 30-day mortality and morbidity were assessed. Median (interquartile range) and frequencies are reported.

Results: We identified 71,694 bariatric surgery patients; median age was 45 (36-54) years and BMI 44.8 (40.8-50.3). 95.2% had no complications. A leak was found in 441 (0.6%), deep vein thrombosis (DVT) in 184 (0.3%) and pulmonary embolism (PE) in 134 (0.2%). These complications occurred 10 (5-15), 13 (7-20), 11 (4-19) days after surgery, respectively. Leaks and PE developed post-discharge in 275 (62.4%) and 96 (71.6%), respectively. Only 35 (26.1%) of the patients who developed a PE had a DVT.

Conclusions: The majority of leaks and PEs after bariatric surgery occur after discharge. This finding goes against the routine use of contrast studies to rule out leak the next day after surgery. The risk of PE remains post-discharge from bariatric surgery.

A508

Nissen Fundoplication Over Roux-en-Y Gastric Bypass for Intractable Gastroesophageal Reflux

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UCSF-Fresno¹

Background: Roux-en-Y gastric bypass is an effective treatment for gastroesophageal reflux disease and obesity. However, a small number of patients continue to suffer from reflux after surgery. We review our experience with Nissen fundoplication over Roux-en-Y gastric bypass for intractable reflux.

Methods: Retrospective chart review of 71 patients with intractable reflux who underwent

Nissen fundoplication over a gastric bypass during 2008 to 2013 was performed. The gastric remnant was utilized for the fundoplication and hiatal hernias were repaired. Pre- and post-fundoplication Gastroesophageal Reflux Disease Health-Related Quality-of-Life scores (GERD-HRQL) were obtained for 23 patients (32%) through follow-up phone interview. The validated tool uses reflux-related questions, each with scale 0 (no symptoms) to 5 (incapacitating symptoms), and a satisfaction question. Results were compared using a paired t

Results: There were 67 female and 4 males. The average time between Gastric bypass and fundoplication was 12.5 ± 1.5 years, with mean post-fundoplication follow-up of 31.5 ± 5.5 months. Three patients underwent fundoplication at the time of original bypass due to severity of symptoms. The average body mass index at the time of gastric bypass, fundoplication, and follow up was 45.6, 33, and 31.7 kg/m² respectively. Patients underwent a variety of pre-operative testing including upper GI radiography and upper endoscopy, with most common finding of reflux and/or hiatal hernia. The pre-fundoplication GERD-HRQL score was significantly improved after surgery (24.65 ± 2.17 vs. 10.61 ± 2.05 , $t=3.52$, $p<0.001$). All patients who responded to the GERD-HRQL survey were dissatisfied with symptoms prior to fundoplication. After surgery 18 (78%) patients reported satisfaction, 4 (17%) reported dissatisfaction, and 1 (4%) was neutral about post-operative symptomatic relief. Six (8%) patients required conversion to Toupet fundoplication for dysphagia or nausea, with resolution of symptoms.

Conclusions: Intractable gastroesophageal reflux after Roux-en-Y gastric bypass is rare but a phenomenon nevertheless. Fundoplication using the gastric remnant is a safe and effective treatment modality with satisfactory symptom relief.

A601

Concomitant Removal of Gastric Band and Sleeve Gastrectomy: Analysis of Outcomes and Complications from the ACS-NSQIP Database.

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American University of Beirut¹

Background: Objectives: To compare mortality and morbidity of Laparoscopic Sleeve Gastrectomy (LSG) versus LSG with concomitant Gastric Band Removal (LSG/GBR). Background: Since the approval of adjustable gastric banding in the US, a significant number of patients have undergone this procedure with substantial long term failure rates. Conversion of band to SG is an option. However, multiple reports have indicated higher morbidity and mortality rates associated with this operation, especially when performed as a single staged procedure.

Methods: Data from The American College of Surgeons' National Surgical Quality Improvement Program (ACS-NSQIP) database (a prospective validated outcomes registry) was obtained for the time period of 2010 to 2012 using CPT codes for LRYGB and LGBR. Demographics, preoperative comorbidities and postoperative mortality and morbidity data were retrieved. Sepsis was the primary outcome measure with overall morbidity as a secondary outcome. Bivariate and multivariate analyses were carried out using SAS (Statistical Analysis System).

Results: During the study period, 11,189 (96.9%) patients had LSG and 357 (3.1%) had LSG/GBR for a total of 11,546 patients analyzed. On bivariate analyses, mean operative time was lower for patients undergoing LSG rather than LSG/GBR (99.6 ± 49.6 vs 130.4 ± 56.1 min, $p < 0.001$). There was no statistically significant difference in the rate of postoperative mortality (0.08 % vs 0.28%, $p = 0.269$) or that of other outcomes such as return to the operating room, wound infection, or venous thromboembolism. However, the rate of sepsis was higher after LSG/GBR (0.58% vs 1.68% $p = 0.022$). After multivariate analysis, the odds of developing postoperative sepsis remained significantly higher for patients undergoing

LSG/GBR rather than LSG alone (OR = 3.81; CI = [1.59-9.15]).

Conclusions: Laparoscopic Gastric Band Removal with concomitant Sleeve Gastrectomy can be done safely with low morbidity and mortality. However, this procedure carries a higher rate of postoperative sepsis, albeit lower than that reported in the literature.

A602

The Effect of Bariatric Surgery on Diabetic eye disease progression

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University of Birmingham, UK¹

Background: The impact of bariatric surgery on the progression of diabetic retinopathy (DR) is unclear. We aimed to assess the progression to sight threatening DR (STDR) in patients with T2D who underwent bariatric surgery. A secondary aim was to compare the progression to STDR in those who underwent bariatric surgery vs. patients received routine care.

Methods: A retrospective analysis of patients with T2D who underwent bariatric surgery between January 2005 and December 2012 at a single bariatric centre in the UK. Patients were included in the analysis if they attended retinal screening within a year prior to surgery (baseline) and at least once post-surgery. DR was assessed using 2X45 degrees retinal images per eye obtained from the retinal screening programme. STDR was defined as the presence of preproliferative/proliferative DR, maculopathy or Laser treatment. The comparator group of patients with T2D who received routine care was obtained from our well characterised database of patients with T2D who attended the same centre.

Results: 152 patients were included in this analysis (mean age 50.7 ± 8.2 years, baseline BMI 49.0 ± 7.3 kg/m², 37.5% were men). The median (IQR) follow up post surgery was 3.0 (1.0-4.0) years. Bariatric surgery resulted in significant improvements in HbA1c ($8.01 \pm 1.95\%$ vs. $7.06 \pm 2.01\%$, $p < 0.001$) and weight (135.7 ± 25.3 vs. 109.6 ± 26.6 , $p < 0.001$). At baseline before surgery 7.2% had STDR and 69.7% had no DR. In patients without STDR at baseline, 5.3% developed STDR during follow up. In the 47 patients who had diabetes remission after surgery (HbA1c $\leq 6\%$ at follow up), only 1 progressed to STDR, while out of the

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105 patients with persistence of glycaemic abnormalities 7 patients progressed to STDR. STDR progression was non-significantly lower in patients who underwent bariatric surgery compared to those who received routine care (5.3% vs. 7.9%, $p=0.3$). Patients who underwent bariatric surgery were heavier and younger but had similar HbA1c to those received routine care.

Conclusions: Despite significant improvements in glycaemia and adiposity, patients with T2D who underwent bariatric surgery remained at risk of developing STDR in the medium term particularly if glycaemic abnormalities persisted. The long term impact of bariatric surgery on DR and the role of glycaemic status post surgery need to be further examined.

A603

Remission and relapse of advanced non alcoholic fatty liver disease (NAFLD) during 5 years after bariatric surgery.

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Lille University Hospital¹

Background: Non-Alcoholic fatty liver Disease (NAFLD) is becoming a common chronic liver disease in western countries, and is associated with an increased risk of mortality in case of advanced NAFLD (NAFLD activity score (NAS) ≥ 3). Several longitudinal studies including two reports from our center, have documented the marked benefit of bariatric surgery to improve NAFLD in the great majority of patients. However, the potential relapse of NAFLD after initial remission, like it is now well described for diabetes, has never been explored.

Methods: Seventy-eight obese patients (44.9 ± 8.8 years, 73% female, 48.3 ± 7.8 kg/m²), who had Roux-en-Y gastric bypass (RYGB, $n=33$) or Adjustable Gastric Banding (AGB, $n=45$), enrolled in a prospective longitudinal cohort study (NCT01129297) presented at their baseline liver biopsy an advanced NAFLD. Sequential liver biopsies were performed at one and five years after surgery. Main outcomes were body mass index (BMI), liver steatosis (%), and NAFLD activity score (NAS : 1-8, steatosis-inflammation-ballooning). Remission of advanced NAFLD at one year was defined as $NAS < 3$ and relapse at

five years was defined as $NAS \geq 3$.

Results: Remission of advanced NAFLD was observed in 61 patients (30 AGB, 31RYGB) at one year (78%). Their baseline parameters were similar to those of the 17 patients who did not normalize their NAS (Age: $p=0.412$; BMI : $p=0.165$; NAS : $p=0.190$) but they lost significantly more weight at one year (BMI change : -11.0 ± 5.5 vs -5.7 ± 3.0 kg/m², $p < 0.001$). At five years, advanced NAFLD relapsed in 8 patients (5 AGB, 3 RYGB) among the 61 with initial remission (13%) (Table 1). The type of intervention did not influence 5 year relapse (AG vs RYGB, $p=0.473$). Preoperative NAFLD parameters were not different between patients with relapse vs those with long-term remission, but initial BMI was higher in patients with later NAFLD relapse (Table1). Weight loss at one year was not different in the two groups (BMI change: -10.0 ± 4.9 vs -11.1 ± 5.6 kg/m², $p = 0.560$) however relapse of NAFLD between 1 and 5 years was associated with a significant yet modest weight regain (BMI change: 3.0 ± 2.6 vs 0.6 ± 5.4 , $p = 0.007$). Two patients relapsed in absence of weight regain. In parallel, changes in metabolic parameters were not significantly correlated with liver histology worsening (delta HbA1c: $p = 0.074$, delta triglyceride: $p = 0.396$, delta cholesterol: $p = 0.248$).

Conclusions: Remission of advanced NAFLD ($NAS \geq 3$) was frequent (78%) one year after bariatric surgery, and was in most cases (67%) prolonged up to 5 years. The secondary relapse of advanced NAFLD was rarely observed between 1 and 5 years (13%), and was associated in most cases, but not all, with weight regain.

A604

Preliminary analysis of gene candidate single nucleotide polymorphisms (SNP) associated to postoperative weight loss in Mexican mestizo obese patients undergoing roux-en-y gastric bypass (RYGB).

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ABC Medical Center IAP¹ Institute for Genomic Medicine Mexico²

Background: Obesity has been defined as the result of a complex interaction between genetic, behavioral, nutritional and environmental factors. Extensive evidence in the international literature has shown a consistent impact of genomic factors on polygenic morbid obesity. Ethnic diversity has a crucial role at the genomic structure and could harbor different clinical outcomes. Our aim was to evaluate the impact of candidate gene SNP genes on the percentage of body weight loss (%EBWL) in morbidly obese patients undergoing a RYGB in a Mexican mestizo cohort.

Methods: Two hundred eighty-seven patients were eligible for this study. Clinical, biochemical, and demographic variables, as well as body composition assessed by bioelectrical impedance (TANITA, TBF-300A) were obtained. 20-selected SNP from candidate genes were included for analysis. Selected SNP included: GNB3 (C825T), AGRP (C499T), FTO (rs8050136 and rs16945088), ADRB2 (Q27E), POMC87 (A1130G), DUSP1 (rs881150), IFI30 (Q76R), UCP2 (rs603573), LEPR (K109R), ADRB3 (A387G), APOB (A7673G) and PPARG2 (P12A) among others. Genomic DNA was obtained and purified from peripheral lymphocytes using a commercially available kit (Puregene Blood Kit Qiagen™). Allelic discrimination was determined using real-time PCR (ABI Prism 4700 HT Thermal cycler; Applied Biosystems). Microsoft Excel and IBM® SPSS® Statistics version 21.0 was used for analysis. Univariate and bivariate analysis was performed according to the variable scaling. Any p value ≤0.02 was considered as statistically significant for a two-tied analysis.

Results: Our cohort included 167 women (60.9%) with a mean ±SD age of 41.6±11.5 years (17-71). Preoperative mean ±SD BMI was 42.2±6.5 kg/m² with a fat% of 47.8±6.5%. One hundred thirteen patients (39.4%) were diagnosed with high blood pressure and 97 (33.8%) T2D. Mean ±SD for the %EBWL was 67.8±19.7% at 6 months, 83.7±24.0% at 12 months, 81.3±25.5% at 18 months and 81.5±23.9% at 24 months. A preliminary analysis showed 3 SNP significantly associated to the %EBWL at 6 months (FTO and POMC87), 12 months (FTO and POMC87 and 24 months

(POMC87 and APOB). Mutant homozygous and heterozygous genotypes for the minor allele of POMC87 SNP showed lower %EBWL when compared to the wild type homozygous at 6 months (deltas %EBWL=23% and 16%), 12 months (deltas %EBWL=57.3% and 9.3%) and 24 months (deltas %EBWL=63% and 26.9%) after RYGB (Kruskal-Wallis test, p=0.007, 0.02 and 0.02 respectively).

Conclusions: Some candidate gene SNP such as POMC87 were statistically associated to lesser changes in %EBWL in our cohort. A strategy based on genomic susceptibility to discern which individuals will respond better to bariatric surgery may improve patient selection and their therapeutical approach.

A605

Laparoscopic Roux-en-Y gastric bypass for failed gastric band-Mid-term outcomes in 635 patients

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Centre Hospitalier Universitaire Vaudois and Bichat-Claude Bernard University Hospital¹ Centre Hospitalier Universitaire Vaudois² Bichat-Claude Bernard University Hospital³ Riviera-Chablais Hospital, Aigle-Monthey⁴

Background: Laparoscopic gastric banding (GB), one of the most common bariatric procedures for years, is associated with high long-term complication and failure rates leading to reoperation. Conversion to Roux-en-Y gastric bypass (RYGBP) is one of the most popular options in these cases. The objective is to assess the safety and mid-term results of RYGBP after failed GB in a large series of patients operated in three different European bariatric centers.

Methods: Retrospective review of prospectively collected data from all patients undergoing reoperative RYGBP in one or two steps after failed GB.

Results: A total of 635 patients, 557 women and 78 men, were included in this study. The mean age at reoperation was 43.2 (18-69) years. The mean duration of surgery was 188 (90-335) minutes. There was no mortality. The overall major complication rate was 5.9%, with no

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difference between patients operated in one or two steps. The mean BMI decreased from 43.7 to 32.8 after one year, 32.2 after 18 months, and 32.5 after 5 years. The percentage of patients with a BMI > 40 fell from 64.9 to 11.9 between 0 and 5 years, whereas the percentage of patients with a BMI < 35 increased from 13.4 to 71.8 during the same time frame. Results in superobese patients were significantly worse than results in less obese patients.
Conclusions: Conversion to RYGBP after failed GB is feasible and relatively safe in experienced hands, despite a significant morbidity, even when performed in one session. Mid-term results of weight loss are very acceptable.

A606

Effect of Bariatric surgery on Non alcoholic fatty liver disease in Indian population– Preliminary results of the NASHOST trial(CTRI/2013/01/003300)

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Gem Hospital & Research Centre¹

Background: With increasing rates of Obesity and diabetes, the incidence of Non alcoholic fatty liver disease (NAFLD) is on a rise. It is a pathological entity ranging from steatosis to fibrosis leading to cirrhosis in the absence of alcohol abuse. Current evidence shows that bariatric surgery helps in this resolution by direct and indirect mechanisms. The same has not been studied in the Indian population where the pattern of obesity and diabetes is different compared to the west.

Methods: This is a prospective registered clinical trial where all patients were systematically excluded of alcohol abuse. Intraoperative liver biopsy were taken from all the patients. The patients were regularly followed up with documentation of weightloss parameters, and diabetic profile. The patients

with a positive liver biopsy of any grade of NAFLD were followed up with a repeat liver biopsy at the end of 6 months. These were analyzed in terms of age, type of bariatric procedure, extent of weightloss and status of diabetes.

Results: A total of 42 patients were included in the trial. This included 20 males and 22 females. The mean age was 42 years (29-68). The mean BMI was 41.2 (32-58). 28 of the 42 patients were previously diagnosed diabetic with 12 patients requiring Insulin therapy. All the patients had either a laparoscopic sleeve gastrectomy (LSG) or laparoscopic roux en Y gastric bypass (LRYGB). Thirty one patients underwent LSG and the remaining 11 underwent LRYGB. The intraoperative biopsy revealed steatosis alone in 22 patients, fibrosis in 17 patients and cirrhosis in 3 patients. Sixth month biopsy had shown complete resolution of steatosis/fibrosis in 27 (65%) patients, improvement in 11 (26%) patients, no change in 3 (9%) patients. On comparing the patients who had a complete resolution and improvement alone shown a statistically significant difference in terms of %EWL with patients in the former had 62% EWL and those in the latter had 49% EWL. There was however no statistical difference to presence/resolution of diabetes, age or the type of surgical procedure done. Two of the 3 cirrhotic patients who had macronodular changes during intraoperative evaluation had no improvement in their pathology. The remaining 1 patient had complete resolution of cirrhosis.

Conclusions: Bariatric surgery is effective in the resolution/improvement of NAFLD even in the presence of fibrosis. Our study shows that the degree of weightloss is the major factor predicting complete resolution of NAFLD. The other factors of age, type 2 diabetes mellitus, type of surgical procedure does not seem to have a significant effect on the resolution of NAFLD.

Wednesday, November 5, 2014

Video Session B

3:30pm–5:00pm

A910

Hill procedure for recurrent gastroesophageal reflux post Roux-en-Y gastric bypass

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Background: Roux-en-Y gastric bypass (RYGB) is considered to be an optimal surgical treatment option for GERD in the morbidly obese patient. Nevertheless, a subgroup of

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patients suffer from recurrent or persistent GERD after their gastric bypass. Unfortunately, limited treatment options are available in these patients. Fundoplication via mobilization of the remnant stomach and radiofrequency treatment of the lower esophageal sphincter have been described with some success. Our objective is to illustrate a safe and durable surgical option in the treatment of patients with medically refractory GERD post RYGB.

Methods: After placing five trocars in the usual position for a foregut laparoscopic surgery, a lysis of adhesions and standard dissection of the hiatus is performed. The anterior and posterior vagal nerve associated phrenoesophageal tissue bundles are identified. A primary crural repair with interrupted nonabsorbable sutures is performed. Four full-length nonabsorbable sutures are placed sequentially through the anterior and posterior phrenoesophageal bundle, posterior fundus and finally through the pre-aortic fascia. The repair is calibrated on a 44 French bougie. The sutures are tied from medial to lateral in the order of their placement under endoscopic guidance.

Results: No peri-procedural complications were encountered. Standard post anti-reflux surgery clinical follow up with the patient completing a validated GERD clinical questionnaire at 1 and 6 months after the surgery demonstrated excellent GERD symptom control without any dysphagia. A pH study and EGD were performed at 6 months post Hill procedure.

Conclusions: The Hill procedure is a valid treatment for the post bariatric surgical patient with GERD in which the gastric fundus is absent or inaccessible thus eliminating standard fundoplication as a reasonable option. This also represents a safe and durable treatment of GERD in this uniquely challenging patient population.

A911

Revision surgery for weight recidivism after laparoscopic Roux-en-Y gastric bypass (LRYGB)

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Background: Weight regain has been reported as high as 25–35 % of initial excess weight loss and typically occurs within 2–7 years post-op. Etiology is multifactorial and includes abnormal anatomy, poor eating habits, and psychological

failures. Gastric pouch and stoma enlargement can lead to weight regain. Subsequent revision (surgically or endoscopically) may promote weight loss. The loss of satiety (enlarged pouch) and rapid emptying (enlarged stoma) are possible causes of weight regain. We report on the technical details in managing a dilated gastric pouch/fundus and a dilated gastrojejunostomy surgically.

Methods: A 42 year old female 13 years after LRYGB with weight regain was evaluated in a multidisciplinary group of surgeons, bariatricians, nutritionists and psychologists. Pre-gastric bypass BMI was 42 kg/m² and she was able to achieve a nadir BMI of 28.05 kg/m² 5 years post-op. However over 8 years she developed weight recidivism with a current BMI of 39.17 kg/m². Upper GI demonstrated a large gastric pouch and rapid gastric emptying into the Roux-imb. No evidence of a gastro-gastric fistula. Upper endoscopy confirmed a large gastric pouch (6 cm by 6 cm) with retained gastric fundus 3 cm dilated stoma.

Results: Our unit performs endoluminal and surgical revisions. Which method is based on abnormality and insurance approval. Endoluminal therapy is often employed when only stoma revision. Surgical intervention (routinely performed laparoscopically) is performed when fistula, ulcer and both pouch and stoma reduction are required. Diagnostic laparoscopy and anatomy delineation is performed with adhesiolysis between pouch, remnant and liver. The “candy-cane” portion of the Roux limb and mesentery was found facing the patients right side. A 9 mm diagnostic endoscope is placed into the Roux-imb to help size the planned stoma and pouch creation. Once the blood supply is delineated and preserved, a linear stapler is used to resect the redundant candy cane and part of the gastric pouch/anastomosis. The greater curve, which included the fundus, was then resected with sequential linear staplers. The Roux limb was then “plicated” to the lesser curve to take of any undo tension and cover the staple lines. The staple line on the fundic region was oversewn and leak tested with upper endoscopy. The perioperative course was uncomplicated with a post op UGI showing marked pouch and stoma reduction.

Conclusions: Laparoscopic gastric pouch and gastrojejunostomy reduction can be safely performed for weight recidivism after gastric bypass. Preoperative evaluation should not

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include only include anatomy, but a thorough medical, nutritional and psychological evaluation. Long term efficacy remains to be studied.

A912

Laparoscopic Conversion of a Non Divided Gastric Bypass to a divided Gastric Bypass for a Gastro Gastric fistula.

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Background: The patient is a 42 y/o white female who had an open non divided gastric bypass 10 years ago. The patient had lost 120 pounds and had maintained her weight loss. The patient over the last year had noticed a loss of satiety and reflux. The patient had an egd and an upper gi study which revealed a GG fistula.

Methods: The patient was taken to the operating room and an extensive adhesolysis was performed. The roux limb was identified which was dissected away from the underside of the liver. The endoscope was used to identify the GE junction, the gastric pouch, the roux limb and the GG fistula and a division of the GG fistula and a conversion to a divided gastric bypass was achieved.

Results: The patient did well and has lost a significant amount of weight with no postoperative complications.

Conclusions: This video demonstrates the technical details in a laparoscopic conversion of a non divided gastric bypass to a divided gastric bypass and division of the GG fistula.

A913

Days you will never forget in Bariatric Surgery

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Background: Bariatric surgery has become an integral part of morbid obesity treatment with well-defined indications. During these procedures accidents related to the surgical technique and devices could happen. The aim of this video is present different accidents that occurred during the surgical procedure and their management intraoperatively.

Methods: We collected a series of cases performed by two experienced surgeons working in Argentina and in United States. We present a series of accidents that occurred during Laparoscopic Sleeve Gastrectomy and Gastric

Bypass surgery.

Results: The video shows a mechanical stapler cartridge that was accidentally unloaded from the stapler inside the jejunum after firing. Following, a mechanical stapler that could not be open after firing the first load during a sleeve gastrectomy. Finally an NG tube and an endoscope that were stapled during the creation of the gastric sleeve. The management of these complications were all successfully done laparoscopically.

Conclusions: Accidents related to surgical technique and devices may occur even in the hands of the most experienced surgeons. It's essential for the bariatric surgeon to have a broad knowledge and tools in his armamentarium to be successful in managing these complications.

A914

Revisional surgery after single-anastomosis duodeno-ileal bypass with sleeve gastrectomy (SADI-S)

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Background: Patients submitted to malabsorptive surgery usually achieve a better and long-lasting weight loss. However they are amenable to suffer from protein and micronutrient depletions, specially when they have eating disorders. Our current malabsorptive technique is Single-Anastomosis Duodeno-Ileal bypass with Sleeve gastrectomy, SADI-S, which is basically a one-loop duodenal switch with a 250 cm common channel. Advantages of the technique over the classic duodenal switch are a shorter time to perform, only one anastomosis and no mesenteric opening. In case of severe malnutrition, what happens in our experience in 2.7% of the cases, different technical possibilities are available to dismantle the operation.

Methods: Conversion into a Roux-en-Y duodenal switch with longer alimentary and common limbs was our initial option. To safely preserve the pylorus, the duodeno-ileostomy was kept untouched, and an immediately post-anastomotic division of the common limb was performed. The distal end was then anastomosed to the biliary channel at a variable distance from the pylorus, so a longer alimentary channel with a constant 250 cm common limb was built up. Since we perform a hand-sewn duodeno-ileostomy, we find no problem in

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dismantling the previous anastomosis and performing a new end-to-side duodeno-intestinal anastomosis aboral preserving an undamaged pylorus; these is currently our preferred technique. The anastomosis is divided with a linear stapler, and after measuring both limbs a new duodeno-jejunal anastomosis is performed completing a "proximal" SADI-S. In some cases, when the sleeve is dilated, after decreasing the malabsorptive potential of the operation we include a re-restriction by performing a re-sleeve gastrectomy.

Results: Reversal of malnutrition is achieved by both surgical options. Patients submitted to conversion to Roux-en-Y duodenal switch with no re-sizing of the sleeve suffer a weight regain. On the other hand, patients on which the sleeve is re-sized maintain weight loss with an improvement of their nutritional status.

Conclusions: Nutritional complications of SADI-S can be easily reverted through different technical possibilities. If the malabsorptive component of the operation is reduced and the sleeve is found to be wide, we prefer to increase the restrictive component to avoid a great weight regain.

A915

Wilkinson wrap conversion To Roux-en-Y Gastric Bypass

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Background: Bariatric surgery has changed though out the years. Some of these obsolete techniques are still encountered and require revision secondary to complications as well as recidivism. The laparoscopic approach is now standard of care for primary operations. However, the laparoscopic approach to to revising obsolete operations requires a thorough understanding of the operation as well as operative skill.

Methods: This video shows the conversion of a Wilkinson Wrap to a Roux-en-Y gastric bypass for inadequate weight loss

Results: Patient is a 73 year-old female who previously underwent Wilkinson wrap, follow by gastric band for failure of adequate weight loss. Although she did have weight loss after her Wilkinson wrap in 1983, it was not long lasting. She did lose up to 80 pounds with placement of adjustable gastric band but gained the majority of her weight back. Her BMI before revision was 50.9. At that time we preformed a conversion to

Roux en-Y bypass.

Conclusions: Conversion from Wilkinson wrap to Roux-en-Y bypass laparoscopically is feasible.

A916

Laparoscopic conversion of gastric bypass to sleeve gastrectomy and duodenal switch in 2 stages for weight regain.

Lars Nelson *Orlando FL*

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Background: 42 year-old female with BMI 56.8 complaining of weight regain after RYGB 6 years ago. Patient had lost 150 pounds and had gained back 60 pounds. Patient was able to eat large portions and was getting hungry every 1-2 hours. Preoperative UGI had normal findings and did not show dilated pouch/anastomosis. Decision was made to proceed with laparoscopic conversion of RYGB to SG with DS in a two stage procedure.

Methods: Stage 1: Adhesions between the pouch and the stomach remnant and adhesions between the left lobe of the liver and the fundus of the pouch were taken down. The left lobe of the liver was retracted anteriorly. The patient had a retrocolic retrogastric bypass. The gastrojejunostomy was identified and transected. A gastrotomy was made in the stomach remnant and pouch. A linear stapler was used to create the anastomosis between the stomach remnant and the pouch. The opening was closed with a running 2-0 Polysorb in 2 layers. The jejunum was run distally toward the jejunojejunostomy. The Roux limb was transected from the JJ anastomosis along with its mesentery using linear stapler until the stomach and the jejunum were completely transected. The stomach was transected vertically from the antrum to the fundus, with 40 French bougie in place. The staple line was imbricated and oversewn with a running 2-0 Polysorb in the seromuscular layer. The stomach and jejunum were sutured together and removed from the abdomen. Stage 2: Patient was brought back to the OR 4 months later for second stage procedure. The duodenum was carefully dissected 4 cm below the pylorus. A tunnel was created underneath the duodenum and duodenum was transected using a linear stapler. The distal portion of the duodenum was oversewn with a running stitch of 2-0 Polysorb. Attention was directed to the ileocecal valve. The ileum was run 125 cm cephalad which was

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marked. At 300cm point, the jejunum was transected. The biliopancreatic limb was sutured to the ileum. Enterotomies were done in both the afferent and efferent limbs. The anastomosis was created with a linear stapler, and closed with a running stitch of 2-0 Polysorb in 2 layers. The Roux limb was brought up to the duodenum which was anastomosed in 2 layers. Anastomosis were tested with methylene blue and showed no leak. The Peterson's defect was closed.

Results: Stage 1: Post op pt did well, UGI and methylene blue test were negative on POD1, home on POD3 on phase 1 diet. Stage 2: Post op pt did well, UGI test was checked and negative on POD4, home on POD5 on phase 1 diet.

Conclusions: The laparoscopic conversion of RYGB to first stage sleeve gastrectomy and second stage duodenal switch may be feasible in RYGB patients with failure of weight loss.

A917

Video: distal sleeve gastrectomy obstruction due to remanent gastric fundus: revisional surgery.

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Background: To perform a successful sleeve gastrectomy and avoid complications such as stenosis and weight regain the surgeon must thoroughly dissect gastric fundus and greater gastric curvature

Methods: Case report : female, 20 years , preoperative BMI 34 kg/m² with insulin resistance and dyslipidemia. Initially submitted to laparoscopic sleeve gastrectomy. The patient

A918

Laparoscopic Conversion from Duodenal Switch to Gastric Bypass

Stephan S. Axer, MD; Leif Hoffman, MD

Background: Weight regain or/and complications of the primary procedure are indications for revisional bariatric surgery. We describe a laparoscopic conversion to gastric bypass as an optional procedure in the treatment of therapy-resistant peptic ulcers in the upper GI tract after previous laparoscopic duodenal switch.

evolves with persistent dysphagia associated with early postprandial vomiting which led to difficult management severe malnutrition in the follow up. An Upper GI contrast shows severe stenosis of the mid third of the sleeve gastrectomy and esophageal dilatation. Upper GI endoscopic study shows relative stenosis of the mid third of the sleeve and dilatation of the upper and lower portions with retention content in the antrum. After evaluation of these clinical findings stenosis is suspected and differential diagnostic with gastric diverticula is proposed. Revisional surgery is decided having in mind the certain possibility to perform a gastric bypass redo surgery.

Results: Intraoperative findings were: relative mid third sleeve stenosis and difficulty to passage a 38 french bougie. An undissected remanent gastric fundus was also found causing functional obstruction of the mid and distal third of the sleeve gastrectomy . After dissection of this gastric fundus and using intraoperative endoscopy an adequate distal passage of the endoscopy and also of the bougie is seen. Because of these findings we decide to resect the remanent gastric fundus and perform a resleeve Gastrectomy. The patient evolves favorably after surgery without dysphagia nor adverse events. An upper GI x-ray with contrast shows no stenosis and normal findings of a sleeve gastrectomy. Favorable postoperative evolution without dysphagia and improvement in quality of life.

Conclusions: When performing sleeve gastrectomy a less than meticulous gastric fundus dissection can cause functional obstruction that can be misinterpreted as stenosis.

Methods: The electronic patient record was reviewed. Video files were analyzed and remixed as an instructive video presentation.

Results: In March 2013, a 53 year old female patient with a BMI of 52.5 underwent a laparoscopic duodenal switch operation. In the postoperative course the patient developed peptic ulcers in the lower esophagus and the

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proximal ileum approximate to the duodeno-ileostomy. These ulcers were resistant to any kind of pharmacological therapy. Clinical symptoms were abdominal pain, difficulties in swallowing and frequent regurgitations. Radiological and endoscopic diagnostic could not reveal any dysfunction or obstruction in the upper GI tract. A half year after the primary operation, a laparoscopic conversion from duodenal switch to gastric

bypass was performed. The postoperative course was uneventful without any clinical or endoscopic proof for remaining peptic ulcers.

Conclusions: A laparoscopic conversion from duodenal switch to gastric bypass is a feasible bariatric procedure for patients suffering from peptic ulcers in the upper GI tract refractory to pharmacological treatment.