

V-01.

TRANSORAL ENDOLUMINAL RETRIEVAL OF ERODED ADJUSTABLE GASTRIC BAND

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Background: Intra-gastric erosion of adjustable gastric bands occurs in 1-3 % of patients. Laparoscopic (and open) removal is associated with potential risks and complications. Endoscopic-only removal techniques have been hampered by the lack of a standard technique and appropriate instrumentation. An efficient and reproducible transoral method of dividing the band allows endoscopic removal as an outpatient procedure, resulting in rapid recovery.

Methods: Between July 2005 and October 2008 four patients underwent transoral removal of adjustable gastric bands which had partially eroded into the gastric cavity. First, the port segment of the gastric band is removed separately under local anesthesia. During this portion, the band tubing is divided. An upper endoscopy is then performed. The intra-gastric portion of the band is encircled with a flexible endoscopic hydrophilic guide wire, with both free ends brought out through the mouth. A flexible metal overtube is placed transorally over the two ends of the guidewire. The wire is then attached to a standard mechanical lithotripsy device which tightens the wire, thus cutting the band. Once severed, the band is retrieved endoscopically with a snare or biopsy forceps.

Results: All four patients had a successful, uncomplicated retrieval. All patients were started on a clear liquid diet and discharged home on post-operative day one.

Conclusion: Transoral endoluminal band removal is a safe procedure which allows for the removal of an intra-gastrically eroded gastric band. It obviates the need for an intra-abdominal procedure with its associated risks.

V-02.

RECURRENT PARAESOPHAGEAL HERNIA PRESENTING AS ACUTE ROUX LIMB OBSTRUCTION FOLLOWING GASTRIC BYPASS

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Background: Obesity is a well-established risk factor for both gastroesophageal reflux disease and type I sliding hiatal hernia, while the relationship between obesity and a type III paraesophageal hernia (PEH) is less clear. Simultaneous repair of the PEH with Roux-en-Y gastric bypass (RYGBP) provides an effective treatment for PEH in obese patients. However the method of repair in this setting remains controversial. We present a video of recurrent PEH following a prior combined laparoscopic PEH repair and gastric bypass, presenting as acute small bowel obstruction.

Methods: A 47yo patient underwent RYGBP and PEH by primary repair for a symptomatic PEH and BMI of 43. At 6 months postoperatively, she presented with acute nausea, vomiting. CT

scan revealed recurrent PEH with obstruction of her Roux limb. She was taken emergently for laparoscopic reduction/repair of recurrent PEH with biological mesh reinforcement.

Results: The patient was found to have herniation of her entire Roux limb with acute obstruction. The involved bowel was dusky but reperfused after reduction. The crural defect was repaired posteriorly and reinforced with an onlay biological mesh. Her recovery was uncomplicated.

Conclusion: We report a rare complication of Roux limb obstruction due to recurrent PEH following RYGBP, and describe the feasibility of a laparoscopic repair of recurrent PEH with mesh in this situation. While the use of mesh in a PEH repair during gastric bypass is controversial, this is a difficult problem in which the use of biologic mesh in at the initial setting should be considered in order to decrease the risk of recurrence.

V-03.

NATURAL ORIFICE TRANS UMBILICAL SURGERY (NOTUS) SLEEVE GASTRECTOMY

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Background: Single site laparoscopic surgery or natural orifice transumbilical surgery (NOTUS) has become an exciting area of surgical development, particularly in the bariatric realm. Our video presents a sleeve gastrectomy that was performed with ports all placed within the umbilicus.

Methods: We describe a 62 year old female with a long history of morbid obesity and comorbidities including sleep apnea, borderline hypertension, fibromyalgia, osteoarthritis, back pain, migraines, and a cerebral vascular accident secondary to patent foramen ovale that has since been repaired. Her BMI was 38. A sleeve gastrectomy over a 32 Fr bougie was performed through 3 abdominal trocars placed within the umbilicus. Some potential advantages of NOTUS sleeve gastrectomy include reduced postoperative pain and the lack of visible abdominal scars.

Results: The operation was completed uneventfully in 90 minutes. The patient recovered without intraoperative or postoperative complications and was discharged on postoperative day three. At 3 months follow-up, the patient was doing well without significant complaints with a 38% excess body weight loss.

Conclusion: This case report documented the feasibility of a sleeve gastrectomy performed through a single site. Benefits of this approach compared to conventional laparoscopic procedure will require a prospective, randomized clinical trial.

V-04.

TRANSORAL GASTRIC VOLUME REDUCTION AS AN INTERVENTION FOR WEIGHT MANAGEMENT (TRIM TRIAL)

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Background: Endoluminal gastroplasty techniques are being developed to provide less invasive methods of achieving weight loss. We present our technique of transoral gastric volume reduction using the Restore Suturing System.

Methods: This is a prospective, non-randomized, multicenter feasibility study of subjects with Class I, II, and low grade Class III obesity.

Results: The video presented demonstrates a single intubation, multi-stitch endoscopic suturing device designed to approximate gastric tissue. The gastric volume reduction procedure performed in the TRIM trial is demonstrated.

Conclusion: Transoral gastric volume reduction using the Restore Suturing System is technically feasible and no significant procedure-related complications have occurred.

V-05.

LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING OVER A PRIOR ROUX-EN-Y GASTRIC BYPASS

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Background: The case presented in this video is that of a 53 year-old woman with morbid obesity and multiple related comorbidities who had poor weight loss (< 50% EWL) on long-term follow-up after gastric bypass. Her principle complaint was a poor sense of restriction. She underwent endoscopic suture revision of her gastrojejunostomy with inadequate response. After discussion of her options for further intervention, she elected to undergo placement of an adjustable gastric band over her bypass.

Methods: This video depicts the placement of a laparoscopic adjustable gastric band over this patient's prior gastric bypass. Essential aspects of intraoperative anatomy, dissection, and decision making are covered within the audio narration.

Results: This patient was discharged to home on postoperative day number one. She had no postoperative complications.

Conclusion: The patient reports an improved sense of restriction at meal-time and she has had an additional 17% excess weight loss at four month follow-up.

V-06.

TRANS-ORAL ENDOSCOPIC RESTRICTIVE IMPLANT SYSTEM FOR THE TREATMENT OF MORBID OBESITY

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Background: This video describes a new technique of endoscopic surgery for the treatment of morbid obesity.

Methods: First case of a Phase I Human Trial of a new endoscopic procedure. The different steps of the technique are described; including gastric stapling, anchors placement and fixation of the gastric restrictor.

Results: N/A

Conclusion: This video illustrates a new technique of endoscopic surgery for the treatment of morbid obesity.

V-07.

INTRAOPERATIVE MANAGEMENT OF FAILED STAPLE LINE DURING REVERSAL OF VERTICAL BANDED GASTROPLASTY FOR CHRONIC OBSTRUCTION

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Background: A common late complication of vertical banded gastroplasty (VBG) is outlet obstruction at the level of the band. One option for relieving the obstructive symptoms is to take down the VBG using an endolumenal stapling technique. We present a case of an intraoperative complication with a failed staple-line during laparoscopic VBG reversal. Intraoperative management of this complication includes distal gastrectomy with a Billroth II reconstruction.

Methods: An 81 year old female who underwent a vertical banded gastroplasty 25 years ago presented with a chronic history of nausea and vomiting. Endoscopy and an upper contrast study revealed a distended gastric reservoir with outlet obstruction. The operative plan was laparoscopic transgastric reversal of the VBG with intraoperative upper endoscopy. Intraoperatively the transgastric staple-line failed requiring conversion of the procedure to a distal gastrectomy with Billroth II anastomosis.

Results: The operative time was 5.5 hours. An upper contrast study on postoperative day one showed good flow through the anastomosis. The patient was started on clear liquids and was discharged home on post operative day 7. Her nausea and vomiting symptoms resolved and she was able to resume a bariatric diet.

Conclusion: Reoperative bariatric surgeries are complex and at risk for development of intraoperative complications. The use of intraoperative endoscopy to detect staple-line leaks is vital. Timely detection and appropriate management of intraoperative complications are key in prevention of dreaded postoperative complications.

V-08.

LAPARO-ENDOSCOPIC SINGLE SITE SURGERY FOR PLACEMENT OF ADJUSTABLE GASTRIC BAND

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Background: To demonstrate with video presentation a Laparo-Endoscopic Single Site Surgery (LESSS) for placement of adjustable gastric band.

Methods: Essentially this is a laparoscopic procedure done via one skin incision. A periumbilical skin incision is made and a small pocket is then created above the anterior fascia to accommodate multiple ports. Pneumoperitoneum is first achieved with a veres needle. Then a 15mm port is placed in order to introduce the gastric band into the abdomen. The 15mm port is then removed and the fascia closed enough to accommodate introduction of a flexible instrument and the liver retractor. Two 5 mm ports are placed as well for working instruments. The pars flaccida technique is then employed to place the gastric band. The band is secured with gastro-gastric sutures using intracorporeal knot tying. The gastric band adjustable port is then placed on the anterior fascia leaving about a 2.5-3cm skin incision hidden in the patient's umbilicus.

Results: Laparoscopic adjustable gastric band is placed through one incision with the adjustable gastric band port and incision placed in the umbilicus.

Conclusion: In our experience, LESSS placement of adjustable gastric band is feasible and safe in selected patients with current surgical technology as demonstrated by this video. Single site surgical techniques are particularly attractive for adjustable gastric band placement because the gastric band port requires a slightly larger skin incision. We aim to look at differences in narcotic use, patient satisfaction, wound complication rates, and differences in weight loss between single incision placement of gastric band and traditional laparoscopic placement of adjustable gastric band in the future.

V-09.

BARIATRIC SURGERY AS A BRIDGE TO ONCOLOGIC RESECTION: A VIDEO CASE REPORT

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Background: Few reports exist of the use of bariatric surgery as a staged intervention in optimizing the super obese cancer patient for surgery. We present a video case report of gastric bypass being utilized a bridge to resection for malignancy.

Methods: A superobese male with renal cancer was considered unacceptably high risk for surgical resection. A Roux-en-Y gastric bypass was successfully performed, downstaging patient to permit a laparoscopic resection.

Results: Acceptable weight loss was achieved, enabling our patient to undergo robot-assisted partial nephrectomy

Conclusion: Bariatric surgery, in select cases, should be considered as an option in optimizing the high-risk obese patient for successful oncologic resection.

V-10.

LAPAROSCOPIC CORRECTION OF A SLIPPED ADJUSTABLE GASTRIC BAND

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Background: Band Slippage is one of the more common major complications of laparoscopic adjustable gastric banding, possibly occurring in up to 6% of patients. Management of this complication has not been standardized. Surgical repositioning of the band by the laparoscopic approach allows alleviation of symptoms and continued weight loss. Band removal has been used to manage this complication, but will likely result in weight regain.

Methods: Herein, we review the laparoscopic repositioning of a band in a patient 13 months after her original banding procedure. After an episode of viral gastroenteritis with severe emesis, the patient developed food intolerance. Upper gastrointestinal X-ray series revealed a slipped band with herniation of the stomach superior to the band.

Results: Laparoscopic correction of the slipped gastric band was performed without complication and with uneventful recovery. The essential elements of this management were: Take down of the gastrogastic wrap, Reduction of the herniated stomach, Recreation of the gastrogastic wrap, and Reduction of any redundant or malformed stomach. The patient tolerated liquid diet on postoperative day number one.

Conclusion: Band slippage is a complication that will be encountered in high volume, if not all, bariatric centers. Laparoscopic correction is feasible and preferred to band removal.

V-11.

LAPAROSCOPIC REPAIR OF INTERNAL HERNIA DURING PREGNANCY

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Background: Abdominal pain during pregnancy is common and may be due to surgical causes such as appendicitis and diseases of the gallbladder. Women that have undergone gastric bypass for morbid obesity are at risk for internal hernias.

Methods: The video demonstrates a diagnostic laparoscopy and repair of internal hernia in a pregnant woman.

Results: A 35 year old female with a history of laparoscopic Roux-en y gastric bypass 4 years prior presented at 31 weeks pregnancy with a 1 day history of severe upper abdominal pain and nausea. She reported a history of gastric ulcer and presently smoked about a pack of cigarettes a day. She was admitted & monitored in the obstetrics care unit. An abdominal CT scan demonstrated a swirl pattern and engorgement of the mesenteric vessels consistent with an internal hernia. She underwent successful diagnostic laparoscopy and repair of internal hernia.

Conclusion: A high index of suspicion of the possibility of internal hernia in a pregnant woman who has undergone gastric bypass is needed to avoid the adverse outcomes of ischemic bowel in the mother and fetal loss.

V-12.

SINGLE LAPAROSCOPIC INCISION TRANSABDOMINAL - SLEEVE GASTRECTOMY

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Background: Laparoscopic sleeve gastrectomy is routinely performed using five and up to seven abdominal trocars with enlargement of one of the trocar sites for extraction of the gastric specimen. We present a case of laparoscopic sleeve gastrectomy performed through a single 4 cm incision with extraction of the gastric specimen through the same site.

Methods: A 54 year old male with a Body Mass Index (BMI) of 38 and history of gastroesophageal reflux and hyperlipidemia underwent a sleeve gastrectomy via a Single Laparoscopic Incision Transabdominal (SLIT) approach. Three trochars were placed through the 4cm epigastric incision (two 5-mm and one 12-mm).

Results: The operative time was 120 minutes. There were no intraoperative complications. A postoperative contrast study showed no leaks. There were no postoperative complications and he was discharged home on postoperative day 3. At 6 weeks follow-up, he weighed 202 lbs (BMI 33) with vast improvement of his reflux symptoms.

Conclusion: Laparoscopic sleeve gastrectomy performed through a single incision is technically feasible and safe in well selected morbidly obese patients with a relatively low BMI. The primary advantage is the decrease in total number of abdominal incisions with potentially less post operative pain and improved cosmesis. Further clinical trials comparing SLIT sleeve gastrectomy to conventional laparoscopic sleeve gastrectomy are needed.

V-13.

LAPAROSCOPIC REVISION OF BILIOPANCREATIC DIVERSION AND MANAGEMENT OF POSTOPERATIVE COMPLICATIONS

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Background: We present the case of a 58-year-old woman who initially underwent laparoscopic biliopancreatic diversion with duodenal switch (BPD-DS) for severe obesity in 2001. The patient had excellent initial weight loss but recently noted decreasing restriction accompanied by weight regain along with excessive diarrhea that was refractory to medical treatment. We performed a laparoscopic revision of her BPD to lengthen her common channel by 50% and reduce the volume of her sleeve gastrectomy. Postoperatively, she developed gastric obstruction that failed

conservative management and required operative removal of the imbricating suture along the sleeve gastrectomy staple line. The patient had a slow recovery after discharge from the hospital and was readmitted on post operative day 10 for emesis. These symptoms ultimately resolved with medical management. At a subsequent clinic visit one and a half months later, the patient's diet tolerance had substantially improved. Her weight decreased forty pounds and her BMI decreased from 36 to 30.

Methods: na

Results: na

Conclusion: This video describes the technical details of laparoscopic revision of BPD and management of postoperative gastric obstruction.

V-14.

LAPAROSCOPIC REVISION OF GASTRIC BANDING TO BILIOPANCREATIC DIVERSION WITH DUODENAL SWITCH

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Background: Laparoscopic adjustable gastric banding (LAGB) is the commonest bariatric procedure in Europe and regions outside USA/Canada. It is a safe and simple procedure for morbid obesity with a low mortality but a high morbidity with a significant number of patients requiring band removal. The weight-loss effectiveness and the long-term results of LAGB are also lower as compared to other bariatric procedures. Recently, biliopancreatic diversion with duodenal switch (BPD-DS) showed to be the most effective procedure to treat morbid obesity, mostly in super-obese and super-super-obese patients. With bariatric surgery gaining popularity among surgeons, more and more revision surgeries are performed to deal with complications or failure of the primary bariatric procedure. This video illustrates the technical key aspects of laparoscopic revision of LAGB to BPD-DS.

Methods: A 40 year-old woman was referred to us for weight regain after LAGB inserted in 2005. Before her band, the patient was 261 lb, went down to 235 lb, and before revision was 290 lb with a BMI of 55 kg/m². The procedure involved lysis of adhesions, take-down of the gastric band, conversion to BPD-DS and liver biopsy.

Results: The procedure was completed laparoscopically without any perioperative complication. The first day postop, the patient underwent an upper gastrointestinal series and then progressed to a liquid diet. The patient was discharged home uneventfully on the third day postop.

Conclusion: Laparoscopic conversion of LAGB to BPD-DS can be safely performed to deal with insufficient weight loss, weight regain or complications related to the primary bariatric procedure.

V-15.

LAPAROSCOPIC CONVERSION OF ROUX-EN-Y GASTRIC BYPASS INTO

BILIOPANCREATIC DIVERSION

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Background: We report a laparoscopic conversion of Roux-en-Y gastric bypass (RYGBP) into biliopancreatic diversion (BPD) for repeated weight regain after previous bariatric procedures.

Methods: In January 1995 a 47-years lady benefited from a silicon ring vertical banded gastroplasty for morbid obesity (weight 146 kg, BMI 54). She had significant weight loss and reached 82 kg (BMI 30). After 7 years she experienced weight regain (weight 94 kg, BMI 34,5), hence a laparoscopic conversion into RYGBP was proposed. The patient had again a successful weight loss until 70 kg (BMI 26) but, 6 years later, she mentioned a weight regain of 19 kg (BMI 33) with an invalidating retrosternal pain. A barium swallow showed the migration of the gastric pouch into the chest. At that time a laparoscopic conversion of RYGBP into BPD was proposed. The procedure consisted of: 1) adhesiolysis 2) reduction of hiatal hernia and deconstruction of the gastrojejunostomy, 3) resection of the gastric fundus, 4) restoration of the continuity of the stomach, 5) subtotal gastrectomy, 6) identification of the alimentary and biliopancreatic loops and deconstruction of the previous jejunojunction, 7) restoration of the intestinal continuity, 8) measurement of the length of new common and alimentary loops, and construction of the new jejunioileostomy, 9) closure of the mesenteric defect, 10) construction of the gastroileostomy, 11) closure of the Petersen space, 12) repair of hiatal hernia, 13) leak-test.

Results: Operative time was 320 min and blood loss was evaluated at 380 mL. Patient had an uneventful recovery and was discharged on 5th p.o. day. At 3 and 6 months the BMI was of 30,5 and 26 respectively, and the barium swallow showed good transit through the gastrointestinal tract.

Conclusion: Laparoscopic conversion of RYGBP into BPD is technically feasible in case of repeated weight regain.