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*Artículo:*

# Resúmenes de Trabajos Libres y Video del FP-44 a FP-98

**FP-44**

**ENDOSCOPIC THYROIDECTOMY**

Valerio E, Omelanczuk P, Pacchioni D. Hospital Luis Lagomaggiore. Mendoza. Argentina.

**Background:** Endoscopic procedures and minimally invasive surgery is being using now to treat thyroid disease given the patients excellent results. **Objective:** To analyze the results of endoscopic procedures with cervical approach of patients with thyroid nodule. **Institution:** Public and private practice. **Material and method:** Prospective analysis of surgical reports, results and complications of 12 patients treated endoscopically between September 2001 and December 2002. **Results:**

| | |
|---|---|
| • Average operating time | 150 min |
| • Average hospital stay | 1.2 days |
| • Complications | 3 (2 intraoperative bleeding and 1 postoperative seroma) |
| • Conversions | 2 (due to intraoperative bleeding) |
| • Return to work | 7 days |
| • Cosmetic results | excellent |

**Conclusions:** Endoscopic approach it is a safe technique for the treatment of thyroid nodules, with some advantages in terms of postoperative pain, less hospital stay and excellent cosmetic results.

**FP-45**

**LAPAROSCOPIC REVISIONS IN BARIATRIC SURGERY**

Lo Menzo E, Podkameni D, Kennedy C, Villares A, Soto F, Higa G, Chousleb E, Berkowski D, Szomstein S, Rosenthal R. Bariatric Institute, Cleveland Clinic Florida. Weston, FL.

**Background:** Due to the increased popularity of bariatric surgery, it is more common to see patients with previous procedures in need of gastric bypass. We present two cases of laparoscopic revisions from Nissen to roux-en-Y gastric bypass (RYGBP) and laparoscopic band to RYGBP. **Methods:** The first case is a 48 year-old woman with a past medical history of coronary artery disease, obstructive sleep apnea, pulmonary embolism and a body mass index (BMI) of 37, who underwent a laparoscopic Nissen fundoplication for severe gastroesophageal reflux disease in the past. Due to her obesity and her comorbid conditions, she was advised to undergo RYGB. The second case is a 32 year-old woman with a BMI of 47 hypertension and sleep apnea, who underwent a laparoscopic placement of an adjustable gastric band. In spite of multiple adjustments the weight loss never exceeded 45 lbs and she was actually regaining weight. Two years after the first operation we advised the patient to have the band removed and convert to gastric bypass. **Results:** Both procedures were accomplished laparoscopically. No postoperative complications are reported. Their hospital stay was 3 days. Both patients are now at their 4-month follow-up and their weight loss is an average of 39% of their excess weight, which is consistent with our institutional results. **Conclusion:** Laparoscopic revisions in bariatric surgery are challenging, but the results are comparable to the first time procedures.

**V-46**

**GASTRIC LEYOMIOMA AND GERD. LAPAROSCOPIC TREATMENT WITH ONLY ONE OPERATION**

Amicuci G, Schietroma M, Franchi I, Mazzotta C. Department of Surgery Scienze, University of L'Aquila. Italy.

**Methods:** A female 65 years old was admitted in our department for gastroesophageal reflux. A TC exam shows a gastric neoformation localize on external face of anterior face of stomach (gastric leyomioma). We decide to performed laparoscopic Nissen fundoplication an leyomioma resection in one operation only. We use Harmonic Scalpel (Ultracision-Ethicon Endosurgery) to dissection lesser omentum and to coagulation short vessel gastric; to resection of leyomioma we use ENDO-GIA and to extraction we use an extraction bag (ENDOBAG). We performed MINI NISSEN FUNDOPLICATION with Delemanne technique. **Results:** The patients hasn't complications. Follow-up at two years shows she is free from reflux symptoms and neoformation doesn't relapse. **Conclusion:** Harmonic Scalpel allows to get better intervention of laparoscopic Nissen fundoplication because allows a effective short vessel division with good hemostasy control and don't damage tissue.

**FP-47**

**LAPAROSCOPIC ASSISTED TRANSHIATAL ESOPHAGECTOMY WITH GASTRIC BYPASS FOR MIDDLE THIRD ESOPHAGUS CANCER. A LESS EXPENSIVE TECHNIQUE**

Herrera MJA, Sánchez C. Hospital Central de Policía, Lima Perú.

A 70 years old male with a middle third Epidermoid Esophagus Cancer, who presented with dysphagia and loss of weight. After all his preoperative evaluation he was operated by our surgical team. Dissection of the gastric and esophageal structures are easily made laparoscopically, modifying the technique and assisting the procedure to elaborate the gastric tube by manual suture, thus making the procedure quite less expensive and making it easer to pass the gastric tube through the posterior mediastinum.

**FP-48**

**GASTROESOPHAGEAL REFLUX DISEASE IN CHILDREN, LAPAROSCOPIC FLOPPY NISSEN FUNDOPLICATION**

Galván MA, Lozada JLD, Mulato BE, Contreras AA, Abúndez PA, Carreto AF. Santa Mónica Hospital, Cuernavaca, Morelos, México.

**Purpose:** In this video we present us the experience of our group in Laparoscopic Floppy Nissen fundoplication procedure in children. **Material and methods:** In a period time study of three years we present us 19 patients, with rank of age between 2 and 16 years old with medium average of 9 years, 10 male children, (52.63%) and 9 female children (47.36%), of our single series only the 15.2% of the patients presented classic symptoms of GERD, and the 84.8% of the patient presented extradigestive symptoms of GERD like projectile persistent vomit in the smallest patient of this serie, whose surgery is demonstrated in this video, chronic pharingoamigdalitis, serosa medium otitis, bronchial asthma, repetitive basal pneumonie, we describe the surgical technique fitting 3 ports of 5 mm, one of subxifoidea position, two subcostal position and one port of 10 mm by umbilical scar for the lens of 30 degrees, beginning with dissection and cut of the phrenoesophageal edges, preserving the hepatic branch of the vagus nerve, dissection of the hiss angle, total liberation of retroperitoneal adhesions of gastric fundus, dissection of the diaphragm crura, mobilization and liberation of all the esophagus circumference, skeletization, clippage and cut of short gastric vessels, once it is released the gastric fundus totally, we made the diaphragm crura closure with two 000 ethibond stitches, we calibrated the wrap with a 42 Fr Savary-Guillard boogie. **Results:** The evolution of the patients has been satisfactory, 100% were discharge from the hospital to 48 h of the postoperating one, the kids tolerated clears liquids at the second postoperatively day, in the 88.22% of the children the symptoms remitted completely with normal life, the asthmatic children stop the visit to the intensive care unit, stop the scholar lack, nevertheless the 15.78% of the children persisted with sporadic symptoms. **Conclusions:** We consider that the GERD in children is most frequently of which we can imagine since its main form of presentation is with extraesophageal manifestations that can be confused with others clinical conditions.

**FP-49**

**EVOLUTION OF ANTI-REFLUX SURGERY-TOTAL FUNDOPLICATION IS SUPERIOR TO PARTIAL**

Galvani CA, Robinson TN, Gorodner MV, Fisichella PM, Way LW, Patti MG. Department of Surgery, University of California, San Francisco.

**Introduction:** Concerned about the theoretical risk that postoperative dysphagia might follow a 360º fundoplication in patients with

gastroesophageal reflux disease and weak peristalsis, we and others advocated a 240º fundoplication when the peristaltic amplitude was < 40 mmHg. Short-term results seemed to support this strategy because symptom control was similar between the two procedures and the rate of dysphagia was low. **AIM:** The aims of this study were: a) to provide long term follow-up of laparoscopic total and partial fundoplication; and b) to determine the incidence of postoperative dysphagia when a total fundoplication is used regardless of esophageal motility. **Methods:** We analyzed the results of all partial and total fundoplications performed at our institution between 10/92 and 11/02. Exclusion criteria included open operation, para-esophageal hernias-re-do operations, Rossetti fundoplications and patients lost to follow-up. *De novo* dysphagia was defined as new oset of postoperative dysphagia lasting more than 10 weeks. Patients were analyzed during two periods. Between 10/92 and 12/99, patients underwent either total or partial fundoplication depending os esophageal motility. Between 1/00 and 11/02, all patients underwent total fundoplication independent of esophageal motility. Statistical analysis included Fischer's exact, Chi-square, and Student t-test. Data are presented as mean ± standard deviation; significance set at p < 0.05. **Results:** Of 679 patients who underwent fundoplication, 357 (53%) met the inclusion criteria. Post-operative data comparing the study groups are summarized below.

| Period | 1992-1999 | | | 2000-2002 | | |
|---|---|---|---|---|---|---|
| Operation | Partial | Total | | Total | Total | |
| Motility | NSEMD | Normal | p-value | NSEMD | Normal | p-value |
| Number of pts | 141 | 94 | | 55 | 67 | |
| Follow-up | 70 ± 20 | 65 ± 25 | NS | 23 ± 10 | 23 ± 10 | NS |
| Heartburn (% pts) | 33 | 15 | p < .05 | 15 | 13 | NS |
| Regurgitation (% pts) | 26 | 8 | p < .05 | 13 | 12 | NS |
| *De Novo* dysphagia (% pts) | 9 | 11 | NS | 9 | 7 | NS |
| Medication (% pts) | 25 | 8 | p < .05 | 16 | 3 | NS |
| % of pts pH+ | 56 | 28 | p = .05 | 22 | 25 | NS |
| Score (nl < 14.7) | 46 ± 55 | 24 ± 33 | p < .05 | 10 ± 8 | 41 ± 21 | p < .05 |

NSEMD = non-specific esophageal motility disorder; Normal = normal peristalsis; Pts = Patients

**Conclusion:** The results showed that: a) at long term follow-up, partial fundoplication was associated with a very high incidence of recurrent symptoms; and b) total fundoplication can be performed in patients with gastroesophageal reflux disease regardless of the amplitude of peristalsis without increasing the incidence of *De Novo* dysphagia. Total fundoplication should be considered the antireflux procedure of choice.

**FP-50**

**REFLUX AND THE PRESENCE OF HIATAL HERNIA DETECTED LAPAROSCOPICALLY**

Lochnert RC, Rojas H, Hamolton J, Glasinovic J, Lochnert RT. Unidad de esófago y reflujo. Clínica Alemana de Santiago, Chile.

**Purpose:** A prospective study was conducted to assess the presence or absence of hiatal hernias in patients operated by a laparoscopic procedure for gastroesophageal reflux, and of significant factors affecting their presence. **Material and methods:** From 1993 to March 2003, operations were carried out on 404 gastroesophageal reflux patients. For these patients, hiatus hernia was defined as the protrusion of any structure through the esophageal hiatus or the displacement of the gastroesophageal union towards the thorax, seen as a vestibule or sac on laparoscopic examination, limited by the pillar of the diaphragms. The patients were studied in accordance with a protocol, whit upper digestive endoscopy, pH of 24 hours esophageal manometry, x-ray of the esophagus, stomach and duodenum. In all patients a highly selective vagotomy was carried out, together with Nissen fundoplicature, posterior gastropexy and histoplasty with approximation and stitching with non-absorbable sutures of both pillars, following cardial calibration and in the case of giant hernias, use of reintorcing mesh. Hernias were classified by the author in three stages according to their thoracic ascent: grade I up to 5 cm above the pillars of the diaphragm: grade II from 6 to 10 cm, and grade III over 11 cm. They were compared with a control group of patients without hiatal hernia. **Results:** The 362 patients with hiatal hernia had an average age of 44.3 years and a standard deviation of 12.6, 63.2% were male, 88% suffered from pyrosis, 75% from regurgitation, 18% from breathlessness and 17% from retrosternal pain. As for the duration of development of the reflux, this was 3.31 years for the group without hiatal hernias and rose to 9.354 for those with the hernia p = 0.0006; 38.4% had grade I hernias, 39.5% grade II and 22% grade III. As for laboratory examinations and imaging, preoperative endoscopy led to detection of hiatal hernia in only 21.8% of case with p = 0.13 (not significant). When there is no hernia, x-ray is effective in 100% of cases, but when hernia is present it detects it in only 26.8% of cases with a p of zero, which is significant. The duration of operations does not differ significantly between the two groups, with p = 0.91 (not significant), conversion to open surgery in 1.5% of cases. Morbidity rate of 10.3% and no mortality also do not differ significantly. According to the size of the hernia and the age of the patients we find p = 0.006 and according to hernia size and the years of reflux p = 0.0001. **Conclusion:** This study shows that the incidence of hiatal hernia is four to five times higher than that detected endoscopically or radiologically, and variations in age and duration of development of the reflux are the only significant factors in the formation of hiatal hernias (p = 0.006, p = 0.0001).

**FP-51**

**INCIDENCE OF PARAESOPHAGEAL LIPOMAS IN PARAESPHAGEAL HERNIAS**

Chastanet RJ, Seger M, Leggett PL. University of Texas at Houston, Minimally Invasive Surgeons of Texas (MIST).

**Background:** The discovery of a paraesophageal lipoma is not and infrequent finding during the repair of a paraesophageal hernias. The true incidence of a paraesophageal lipoma is not reported. We routinely remove this lipoma when it is found. **Hypothesis:** There is an association of paraesophageal lipoma with paraesophageal hernias. **Design:** Retrospective chart review of all paraesophageal hernias repaired by a single surgeon over the past 8½ years. **Results:** Between January 1994 and September 2003, 59 cases of laparoscopic paraesophageal repair were done at Houston Northwest Medical Center by a single surgeon. Twelve instances of associated paraesophageal lipoma were identified based on operative reports and/or pathology review, giving and incidence of this association of 20.7%. **Discussion:** Paraesophageal hernia repair is associated with a high incidence of recurrence. Surgeons have cited many reasons for such a recurrence. We have documented a 20.7% association of what we term paraesophageal lipoma. This lipoma represents a retroperitoneal fat herniation into the mediastinum and may serve as a lead point for herniation and thus recurrence. We believe their should be routinely sought and removed during the dissection before crural closure. We postulate this is a common and under appreciated finding during paraesophageal repair.

**FP-52**

**TOTALLY LAPAROSCOPIC DUODENAL SWITCH WITH HAND-SEWN, RETROCOLIC DUODENOENTEROSTOMY: EXPERIENCE WITH 58 PATIENTS**

Lee Crystine M, Cirangle PT, Feng JJ, Gregg H, Jossart GH. Departament of Surgery, California Pacific Medical Center.

Abstract not submitted

**FP-53**

**TOTALLY LAPAROSCOPIC *VERSUS* HAND-ASSISTED DUODENAL SWITCH: RESULTS IN FEWER WOUND-RELATED COMPLICATIONS**

Lee CM, Cirangle PT, Feng JJ, Jossart GH. Institution Department of Surgery, California Pacific Medical Center, San Francisco, California, USA.

**Purpose:** The laparoscopic duodenal switch operation (DS) is a technically challenging operation that can be facilitated by the hand-assisted technique. We hypothesized that the use of a hand-port, which requires a 7-10 cm incision, would increase the number of wound-related complications compared to a totally laparoscopic technique. **Methods:** A retrospective comparison of totally laparoscopic DS (LAP), and hand-assisted DS (using a GelPort® (HAND) was performed. In both cases, the duodenum is divided and is anastomosed to the distal 250 cm of the ileum, the biliopancreatic limb is anastomosed to the distal ileum to create a 100 cm common channel and a 150 cm alimentary channel using a double-stapled technique, and a greater curvature gastrectomy is performed. **Results:** Between Nov 2001 and Oct 2003, 58 LAP and 49 HAND were performed. Wound-related complications occurred in 0 (0%) LAP and 19 (39%) HAND patients*.

| | | | | | |
|---|---|---|---|---|---|
| LAP | 41 ± 8 | 284 ± 38 | 149 ± 12 | 45.9 ± 4.8 | 228 ± 41 |
| HAND | 44 ± 9 | 335 ± 59* | 152 ± 18 | 53.3 ± 7.7* | 188 ± 53* |

| | | | | | | |
|---|---|---|---|---|---|---|
| LAP | 4.1 ± 2.9 | 0 | (0%) | 0 | (0%) | 0 (0%) |
| HAND | 4.0 ± 1.4 | 4 | (8.2%) | 4 | (8.2%) | 12 (24.5%)† |

* P < 0.0001 *vs* LAP,† all hernias occurred at the HAND-port site.

To determine if the higher incidence of wound-related complications in the HAND group was due to the greater weight and BMI of this group, a subgroup comparison of weight-matched LAP and HAND patients was performed and demonstrated no change in the incidence of wound-related complications in the HAND group. **Conclusion:** The technically difficult DS operation can be facilitated by use of the hand-assisted laparoscopic technique but can results in a significant incidence of wound-relate complications, which in our series occurred exclusively at the GelPort® site. Elimination of the GelPort® incision by performing the DS in a totally laparoscopic manner resulted in no wound complications.

**FP-54**

**LAPAROSCOPIC BARIATRIC SURGERY–A 1869 PATIENT SERIES**

Galvão NM, Cardoso RA, Galvão M, Carlo A. Gastro Obeso Center–Centro Avançado de Gastroenterologia e Chirurgia da Obesidade.

**Background:** Lap bariatric surgery is quickly taking its place around the world with the benefits of minimally invasive surgery. The three main technique done by lap are the Adjustable Gastric Band (GB), Gastric Bypass (GBP) and the Bilio Pancreatic Diversion (BPD). **AIM:** Analyze the results and indication of this technique in our series. **Casuistic:** Between December of 1999 and July of 2003, 1869 patients (see table) were submitted to lap bariatric procedures, being: 833 GB; 610 GPB divided in 522 with simplified technique (ST) and 88 with regular technique (RT); 301 had Gastric Fobi-Capella Bypass (GFCB) and 125 had a BPD done. **Results:** (see table). **Conclusion:** Lap bariatric surgery can be done in a routine manner with good results and low rates of complications and mortality. **Casuistic:**

| | N | Age (M) | Weigth (M) | BMI. (M) Initial | OP. Time |
|---|---|---|---|---|---|
| GB | 833p | 34.5y | 127 kg | 45.4 kg/m$^2$ | 47 min* |
| GFCB | 301p | 37y | 129 kg | 46 kg/m$^2$ | 140 min |
| GBP (ST + RT) | 610p | 36.5y | 132 kg | 44 kg/m$^2$ | 75 min** |
| BPD | 125p | 40y | 162 kg* | 49 kg/m$^{2*}$ | 160 min |

**RESULTS:**

| | BMI (M) Final | Unsatisfac Weigth Loss (%) | Complic. (%) | RE-OP (%) | Mortalid. (%) |
|---|---|---|---|---|---|
| GB | 30.1 kg/m$^2$ | 12%* | 4.81%* | 4.4%* | Zero* |
| GFCB | 28 kg/m$^2$ | 0.66% | 6.7% | 0.66% | 0.33% |
| GBP (ST+RT) | 28.4 kg/m$^2$ | 0.38% | 7.5% | 1.91% | 0.81% |
| BPD | 26.8 kg/m$^2$ | 0.8% | 10.2 | 1.6% | 1.6% |

* p < 0.05

**FP(TL)-55**

**MIOTOMÍA ESOFÁGICA LARGA POR LAPAROSCOPIA, COMO TRATAMIENTO DEL ESPASMO DIFUSO DEL ESÓFAGO**

Rojas DO, González AJM, Romero MR, Farrera GJ, Vega BM, Hurtado RC, Porras QR, Ochoa PJA, Cervera SJA.

**Objetivos:** Describir los detalles técnicos y anatómicos de la miotomía esofágica en 9 pacientes con espasmo difuso del esófago mediante el abordaje laparoscópico y analizar sus resultados a diez años. **Material y métodos:** En el Departamento de Cirugía de los Hospitales American British Cowdray, Español y Centro Médico Tíber de la Ciudad de México, se realizó un estudio prospectivo, longitudinal, observacional y descriptivo, no aleatorio y no comparativo de 9 pacientes consecutivos no seleccionados en quienes se realizaron 9 miotomías esofágicas con funduplicatura parcial posterior fijando el fundus gástrico a las capas musculares laterales por laparoscopia, entre octubre de 1993 y octubre de 2003. **Resultados:** De los 9 pacientes, 5 fueron del sexo femenino y 4 del masculino, con una edad promedio de 48.7 años. El 100% presentó dolor retroesternal intermitente y disfagia, en 2 pacientes se manifestó pirosis y flatulencia, distensión abdominal en 1 paciente. A los 9 pacientes se les practicó electrocardiograma, a 2 pacientes prueba de esfuerzo y coronariografía. La panendoscopia reveló esofagitis péptica de grado II en 6 pacientes, hernia hiatal en 3 pacientes, gastritis erosiva por *H. pylori* en 5 pacientes. El esofagograma baritado mostró en 5 pacientes la imagen clara de sacacorchos o seudodiverticulosis. La SEGD con medicina nuclear corroboró el trastorno de la motilidad esofágica y el retardo en el vaciamiento gástrico. A los 9 pacientes se les realizó manometría esofágica, el 100% de los pacientes presentaron contracciones simultáneas (no peristálticas) mayores de 30 mmHg en más del 30% de las deglutaciones húmedas alternantes con periodos de peristalsis normal.

**V-56**

**CORRECCIÓN DE HERNIA HIATAL POR VÍA LAPAROSCÓPICA CON PERICARDIO DE BOVINO**

Vásquez J, Vernaugd JP, García VJ.

En el momento se han realizado la corrección de hernias hiatales gigantes con pericardio de bovino, en dos formas: cubriendo el defecto herniario con éste por la imposibilidad de un cierre primario y la otra forma es realizando refuerzo del cierre con este material, hasta el momento no se han presentado complicaciones, rechazos o recidivas, los pacientes actualmente están asintomáticos.

**V-57**

**TIROIDECTOMÍA ENDOSCÓPICA**

Bernal J, Herrera A, García VJ.

En este video se editó la técnica quirúrgica para la realización de la tiroidectomía por vía endoscópica, la cual estamos realizando en la ciudad de Medellín, actualmente tenemos una estadística de 23 procedimientos, cada uno de los cuales reunió los requisitos necesarios para poderles realizar este tipo de cirugía, estamos realizando un trabajo acerca de esta técnica, hasta el momento los resultados

son promisorios y quisiéramos compartirlos con ustedes, los pacientes a los cuales se les realizó esta técnica están satisfechos con los resultados clínicos y estéticos obtenidos.

**FP(TL)-58**

**APRENDIZAJE DE LA ENDOANATOMÍA EN CADÁVER**
Ruiz CJ, Fregoso AJM, SERENO TS, Vargas LR, Solano MH, Cantón JC, Orozco A-MO, Hernández RR, García IJA, Altamirano LMA.

**Antecedentes.** El cirujano está obligado a conocer y comprender la anatomía humana. Hasta antes de los años 80's, el proceso tradicional de la "enseñanza-aprendizaje" e la anatomía se realizaba dentro del anfiteatro, durante el programa de pregrado. Con la llegada de la cirugía laparoscópica, incluso los cirujanos mas experimentados han tenido que volver a reconocer la anatomía, viéndola ahora desde una perspectiva magnificada y en tan solo dos dimensiones a través de un monitor. **Métodos:** Mediante equipo de cirugía laparoscópica completa, con lente de 30º, se han realizado disecciones en tórax, abdomen, región inguinal y femoral, así como retroperitoneo en cadáveres humanos. **Resultados:** Con este método se han identificado: 1) En tórax: los pulmones, corazón hilios pulmonares con venas, arterias y bronquios; grandes vasos torácicos, vena ácigos, esófago, nervios frénicos y vagos, timo y músculo diafragmático. 2) En abdomen: esófago, hiato esofágico, nervios vagos, estómago, intestino delgado, colon, apéndice cecal, bazo hígado, vesícula biliar, vía biliar, hilio hepático con la vena porta y arteria hepática y duodeno-páncreas. 3) En región inguinal: el ligamento de Poupart, de Cooper, cintilla iliopectínea, vasos epigástricos, corona mortis, cordón espermático, vasos iliacos y femorales, nervios femoral, iliohipogástrico, ilioinguinal y femorocrural. 4) En región femoral se identificaron la vena safena y su cayado, arteria, vena y nervio femorales y ganglios linfáticos. 5) En retroperitoneo, el páncreas con sus relaciones vasculares y viscerales. **Conclusiones:** El nuevo aprendizaje de la anatomía humana desde la óptica proporcionada por el abordaje laparoscópico, puede realizarse en cadáveres como complemento a lo previamente aprendido durante la formación en las escuelas de medicina, ya que prácticamente todas las estructuras anatómicas son identificadas y abordables con instrumental laparoscópico, permitiendo tanto al estudiante como al especialista quirúrgico familiarizarse con la "endoanatomía humana".

**FP(TL)-59**

**CORRECCIÓN DE DESLIZAMIENTO DE LA BANDA GÁSTRICA AJUSTABLE POR CIRUGÍA LAPAROSCÓPICA**
Rumbaut R, Treviño F, Dibildox M. Centro de Cirugía para la obesidad. Hospital San José-Tec de Monterrey Monterrey, N.L

**Antecedentes:** La banda gástrica ajustable colocada por laparoscopia es un procedimiento efectivo para el tratamiento de la obesidad mórbida. Entre sus complicaciones más frecuentes se encuentra el deslizamiento o prolapso del estómago a través de la banda. **Métodos:** En una serie de 1800 casos, el deslizamiento fue diagnosticado en 36 pacientes (2%) de los cuales 16 (0.8%)han requerido cirugía para corregir dicha complicación. **Resultados:** Las 16 cirugías realizadas para corregir el deslizamiento fueron exitosas en la reposición de la banda gástrica. No se presentaron complicaciones y no fue necesario convertir la cirugía laparoscópica a un procedimiento abierto. **Conclusiones:** Es nuestra conclusión que la técnica laparoscópica es una opción efectiva y con escasas complicaciones para la corrección del deslizamiento de la banda gástrica ajustable, la cual brinda al paciente la posibilidad de continuar con este mecanismo restrictivo para el control de peso.

**V-60**

**SURGICAL BILE DUCT INJURY. RELAPAROSCOPIC REPAIR**.
Antozzi M, Zueddyk M, Signoretta A, Sofía G, Moro M, Alarcón M. Hospital Italiano Regional del Sur, Bahía Blanca, Argentina.

**Purpose:** to show a video of surgical bile duct injury, repair by relaparoscopy. **Methods:** 35 years old male, post operating date number 10 laparoscopic cholecystectomy, with abdominal pain caused by diffuse choleperitoneum diagnosed by ultrasonography and cholangio MRI. Failure of endoscopy treatment. Relaparoscopy was performed showing diffuse choleperitoneum treated with irrigation and suction. Injury in the right lateral face of the bile duct, according Grade II Bismuth classification, suspected caused by electro fulguration. The cholangiography identified topography of the injury, repaired with a polypropylene 6-0 transversal stitch. Final control cholangiography through transcystic catheter, used as biliary drainage, too. Local drainage and closure. **Results:** The follow up period was at the first and second month through transcystic cholangiography. Good evolution. Take out the catheter. Clinical, labs and ultrasonography normal controls were found up to 2 years. **Conclusions:** In this case, Relaparoscopy demonstrated to by a suitable procedure to diagnose, treat and repair choleperitoneum and surgical bile duct injury, facing endoscopic failure.

**V-61**

**RESECCIÓN LAPAROSCÓPICA DE ANOMALÍAS DEL URACO**
Navarrete S, Sánchez IA, Sánchez S, Hermógenes M, Vassallo M. Hospital Universitario de Caracas. Unidad de Cirugía Laparoscópica. Servicio de Cirugía II.

**Objetivo:** Describir una técnica laparoscópica para el tratamiento de las anomalías del uraco. **Método:** Presentamos nuestra técnica de tres portales de 10 milímetros en el hemiabdomen derecho, a través de los cuales se realiza la disección del uraco desde su extremo umbilical hasta la vejiga. **Resultados:** Seis pacientes con clínica de episodios de secreción acuosa a través del ombligo fueron diagnosticados y llevados a cirugía, realizándose abordaje laparoscópico que confirmó el diagnóstico y permitió la resección del uraco en todo su trayecto. El tiempo operatorio promedio fue de 47 minutos, sin morbilidad asociada al procedimiento. **Conclusiones:** La resección de las anomalías del uraco por laparoscopia es una técnica segura y efectiva, con resultados postoperatorios óptimos. Duración del video: 6 min. 20 seg.

**FP(TL)-62**

**ASPECTOS TÉCNICOS Y ANATÓMICOS DE LA REPARACIÓN INGUINAL LAPAROSCÓPICA (TAPP), EXPERIENCIA DE 10 AÑOS.**
Rojas DO, González A JM, Farrera GJ, Romero MR, Rodríguez DM, Vega BM, Hurtado RC, Porras QR, Briceño MA, Ochoa PJA.

**Objetivos:** Describir los detalles técnicos y anatómicos de la reparación de las hernias inguinocrurales mediante el abordaje laparoscópico preperitoneal transabdominal (TAPP) y analizar sus resultados a diez años. **Material y métodos:** En el Departamento de Cirugía de los Hospitales American British Cowdray. Español y Centro Médico Tiber de la Ciudad de México se realizó un estudio prospectivo, longitudinal, observacional y descriptivo, no aleatorio y no comparativo de 574 pacientes consecutivos no seleccionados en quienes se realizaron 722 TAPP, entre mayo de 1993 y octubre de 2003. **Resultados:** De los 547 pacientes 241 eran mujeres y 333 hombres, con edad promedio de 44 años. Se encontraron 277 hernias indirectas, 161 directas, 102 mixtas y 37 crurales; 145 eran bilaterales. Las complicaciones se dividieron en transoperatorias y postoperatorias, dentro de las primeras se presentaron en 361 pacientes enfisema subcutáneo dividido en escroto, prepucio y pared abdominal, 19 pacientes con hipercapnia. Dentro de las segundas (postoperatorias) ocho complicaciones (1.3%) en el postoperatorio, cinco recurrencias (0.8%), tres conversiones (0.5%) y no hubo mortalidad. **Conclusiones:** Los resultados a diez años utilizando la técnica quirúrgica descrita en la reparación inguinal laparoscópica preperitoneal transabdominal resultó un método efectivo y seguro con todas las ventajas laparoscópicas.

**V-63**

**DIVERTÍCULO DE ZENKER TRATAMIENTO CON ENDOSUTURA MECÁNICA ENDOSCÓPICA**
Álvarez CLF, Franco HAL.

El divertículo de Zenker es una patología esofágica infrecuente que se presenta en pacientes de edad avanzada (promedio 70 años) y se caracteriza por causar disfagia, regurgitación, pérdida de peso, halitosis, broncoaspiración y sensación de cuerpo extraño en la garganta. El diagnóstico se hace por esofagograma con trago de bario y su tratamiento ha sido principalmente la resección del divertículo a través de una cervicotomía izquierda con miotomía del cricofaríngeo. Desde la década del 60 se viene haciendo tratamiento endoscópico transoral, el cual consiste en la división del septo común entre el esófago y el divertículo (esofagodiverticulostomía) ya sea con electrocauterio o con laser (técnica de Dohlman). Desde 1992 se viene haciendo la técnica con endosutura mecánica (Stapler) con muy buenos resultados, acortando el tiempo operatorio, la recuperación, la hospitalización y el inicio de la vía oral, con poca morbi-mortalidad. Lo que la hace una técnica sencilla, reproducible y efectiva para esta patología. Se presenta el video de un paciente de 93 años con un divertículo de Zenker, el cual fue tratado con endosutura mecánica transoral, se muestran sus detalles técnicos y resultado final.

**FP(TL)-64**

**EVOLUCIÓN DE LAS PATOLOGÍAS ASOCIADAS DESPUÉS DE LA COLOCACIÓN DE BANDA GÁSTRICA EN PACIENTES CON OBESIDAD MORBIDA**

Cerón RF, Ortiz RA, Menéndez DI, Solares SH.

La obesidad mórbida representa un grave problema de salud ya que se asocia y predispone a otros padecimientos como hipertensión, diabetes, apena del sueño, hiperlipidemia, reflujo gastroesofágico entre otras, trayendo como consecuencia una mala calidad de vida. Cada día más cirujanos en el mundo están utilizando la banda gástrica ajustable por laparoscopia como una alternativa quirúrgica para el tratamiento de la obesidad mórbida. **Material y métodos.** En el hospital Reg. Lic. Adolfo López Mateos del ISSSTE de la Ciudad de México, de mayo de 1998 a agosto de 2003, fueron operados un total de 316 pacientes con banda gástrica ajustable por laparoscopia para el tratamiento de la obesidad mórbida, de los cuales 263 (83%) fueron del sexo femenino y 53 (16.7%) del sexo masculino, con un promedio de edad de 40.5 años (13 a 68) y con IMC de 47 Kg/m2 en promedio (37 a 57). Todos los pacientes fueron valorados siguiendo el protocolo establecido por la Clínica de Cirugía de Obesidad del Hospital. **Resultados.** Después de la valoración se diagnosticaron y confirmaron las siguientes patologías: Hipertensión Arterial 61 (19.3%), Diabetes M.49 (15.5%) Hiperlipidemia 38 (12%), Reflujo Gastroesofágico 25 (7.9%), Apnea del Sueño 21 (6.6%), Artropatías 18 (5.6%), Insuficiencia Venosa 14 (4.4%), Asma Bronquial 9 (2.8%) y diferentes Cardiopatías 4 (1.2%). En 275 pacientes se detectaron patologías asociadas a la obesidad. Todos los pacientes fueron valorados 6 meses después de la cirugía para saber la evolución de las patologías. La pérdida de peso fue la siguiente: 1er mes 12 kg, 2do., 17 kg, 3er. 21 kg. A los 6 meses 25 kg.

| Patología | Mejoró | No se modificó |
|---|---|---|
| Hipertensión Arterial | 52 (85%) | 9 (14.7%) |
| Diabetes M. | 41 (83.6%) | 8 (16.3%) |
| Hiperlipidemia | 38 (100%) | |
| Litiasis Vesicular | 36 (100%) | |
| Reflujo Gastroesofágico | 19 (76%) | 6 (24%) |
| Apnea del sueño | 19 (90.4%) | 2 (9.5%) |
| Artropatías | 14 (77.7%) | 4 (28.5%) |
| Insuficiencia Venosa | 4 (28.5%) | 10 (71%) |
| Asma | 8 (88.8%) | 1 (11.1%) |
| Cardiopatías | | 4 (100%) |

**Conclusiones:** 1. La banda gástrica es una buena alternativa para el tratamiento quirúrgico de la obesidad mórbida. 2. La pérdida de peso mejoró la mayoría de las patologías asociadas. 3. Los padecimientos que presentaron una mejor evolución fueron Asma, Hiperlipidemia, Hipertensión Arterial y la Diabetes M. 4. No se presentó ningún caso de mortalidad.

**V-65**

**MANEJO LAPAROCÓPICO DE LA COLEDOCOLITIASIS**

Serrano AJ, Tenorio TD.

La exploración laparoscópica de las vías biliares es un procedimiento cada vez más común para el tratamiento en un solo tiempo quirúrgico de la coledocolititasis. La presencia de litos en el colédoco es una patología que se presenta en la sexta década de la vida y puede producir ictericia, colangitis o cirrosis biliar. Presentamos la primera serie de 56 pacientes intervenidos con exploración laparoscópica del colédoco, con coledocotomía y coledocoscopio. El Dx opeatorio fue coledocolitiasis en más del 50% de casos, parásitos 6%, un caso de dilatación idiopática y un carcinoma obstructivo biliar. Luego de la exploración con un tubo de Kehr en 80% de pacientes, para colangiografía postoperatoria y en el 20% se realiza sutura primaria del colédoco o una derivación bilio-digestiva (colédoco-duodeno anast). El éxito del procedimiento está sobre el 90% de casos, con un índice de conversión del 6%, por lito impactado en la papila de Vater. La morbilidad del procedimiento es menor que con la cirugía convencional, con todas las ventajas de la laparoscopia. No hubo complicaciones postoperatorias de importancia. **Conclusiones:** El manejo de la litiasis coledociana debe ser realizada en un solo tiempo quirúrgico laparoscópico, siempre que las condiciones del enfermo lo permitan. La recuperación es más rápida con menor morbilidad que con la cirugía convencional.

**FP(TL)-66**

**ACALASIA, EXPERIENCIA EN EL TRATAMIENTO LAPAROSCÓPICO**

García AJ, Ruiz VA, Hdz-Reguero JL, Padilla MCD.

**Introducción:** El tratamiento de la acalasia se divide en 2, uno médico y otro quirúrgico. El quirúrgico es el tratamiento que mejor resultado presenta a largo plazo, el cual consiste en la técnica de cardiomiotomía de Heller modificada incluyendo un tipo de funduplicatura para evitar el reflujo que se provoca. **Objetivo:** Se demuestra la experiencia desde 1999 en el tratamiento laparoscópico de la acalasia en el hospital Juárez de México con técnica de cardiomiotomía de Heller modificada y con dos tipos de funduplicatura, una técnica de Dor y otra técnica de Toupet. **Material y métodos:** Se estudiaron once pacientes de 19 a 44 años (promedio de 34.5 años) que se diagnosticaron acalasia clínicamente y con la ayuda de manometría en todos los pacientes, así como en 9 se realizó serie esofagogastroduodenal corroborando el mismo diagnóstico, se intervinieron 5 pacientes con funduplicatura tipo Toupet y 6 pacientes con funduplicatura tipo Dor y se valoraron los resultados de ambas técnicas. **Resultados:** Los once pacientes se intervinieron satisfactoriamente sin complicaciones en el transoperatorio y posoperatorio, de los 5 pacientes posoperados con funduplicatura de tipo Toupet en 3 existió ligera disfagia a sólidos, la cual se manejó con dilatación endoscópica en forma satisfactoria, por lo que se decidió cambiar la técnica de funduplicatura realizando técnica de tipo Dor y con este procedimiento no existió en ningún paciente disfagia en un seguimiento de 10 a 39 meses. **Conclusiones:** El tratamiento quirúrgico con cirugía laparoscópica es el estándar de oro para el tratamiento de la acalasia. Con buenos resultados transoperatorios y posoperatorios

**FP(TL)-67**

**COMPLICACACIONES GRAVES E INUSUALES EN PLASTIA HIATAL LAPAROSCÓPICA. OPCIONES DE MANEJO**

López GS, Hernández BMA, González GHG. Hospital Regional PEMEX Cd. Madero Tams.

**Introducción:** El avance de la ciencia médica ha dado en forma artificial la idea de infalibilidad ante la población general, las escasas publicaciones de complicaciones graves en laparoscopia contribuye a menospreciar riesgos. **Objetivos:** Comunicar la experiencia de complicaciones graves o inusuales en plastías hiatales por laparoscopia, su diagnóstico y opciones de manejo médico y legal. **Material y mé-**

**todos:** Se incluyen cinco casos de complicaciones mayores operados en los últimos 5 años de 60 plastías hiatales. Tres masculinos adultos y dos femeninos. Un caso de síndrome de Boerhave con perforación esofágica, cirugía, sépsis y muerte. Tres casos de choque hipovolémico: uno de vasos epiploicos y dos lesiones de aorta. Un caso de lesión pleural izquierda. Se analizan los posibles mecanismos de lesión. **Resultados:** Una muerte por sepsis, el resto fue resuelto por laparotomía, hemostasia sin necesidad de injerto vascular, sin secuelas medulares, viscerales o de extremidades. En la lesión pleural, se efectuó sutura pleural primaria laparoscópica sin drenaje. En todos los casos se efectuó la plastía hiatal en forma satisfactoria. En cuanto a los aspectos legales sólo se presentó un recobro económico, en todos se firmó hoja de consentimiento, se mantuvo comunicación directa del cirujano tratante con la familia y el enfermo. **Conclusiones:** La lesión de vasos mayores se reporta del 0.6 al 2.5% con mortalidad de 0.03 a 0.49%, cuando la lesión se sospecha debe de documentarse y resolver para corregir definitivamente, los errores y sus consecuencias deben evitarse con entrenamiento adecuado, poner todo el empeño, habilidad y destrezas al servicio del paciente, mantener una comunicación directa y continua con la familia en un marco de veracidad y respeto de sus derechos.

**V-68**

**CURA OPERATORIA DE HERNIA PARAESOFÁGICA GIGANTE POR VIDEOLAPAROSCOPIA**

Navarrete S, Cantele H, Leyba L, Malavé H, Pulgar V. Hospital Universitario de Caracas. Hospital Privado Clínica Santa Sofía. Unidad de Cirugía Laparoscópica Servicio de Cirugía II.

**Objetivo:** Describir una técnica de cirugía mínimamente invasiva para el tratamiento de la hernia paraesofágica gigante. **Método:** Presentamos la técnica utilizada en cuatro pacientes, en quienes se realizó tratamiento laparoscópico que consistió en reducción de la hernia, tratamiento del saco herniario, reparación con malla y funduplicatura tipo Dor. **Resultados:** La evolución fue satisfactoria en todos los pacientes, quienes egresaron a las 48 horas. Sin morbilidad ni mortalidad asociada al procedimiento. **Conclusiones:** La cura operatoria de hernia paraesofágica gigante por videolaparoscopia es un procedimiento seguro y efectivo, con buenos resultados postoperatorios. Duración del video: 8 min. 30 seg.

**V-69**

**REPARACIÓN DE HERNIA DIAFRAGMÁTICA POSTRAUMÁTICA IZQUIERDA POR VÍA LAPAROSCÓPICA. REPORTE DE UN CASO**

Camargo PLF, Mario ML, Trejo GV.

Paciente masculino de 26 años de edad, que sufrió accidente automovilístico en el año de 2002, con fractura costal izquierda 5º y 6º espacio, sin complicaciones de disnea. Tos, etc. 6 meses posterior al trauma presenta distensión abdominal, dificultad para la ingesta de alimentos, estreñemiento, solicitándose endoscopia (vista en video) encontrándose deformidad de cámara gástrica, así como pangastritis importante, ante la deformidad se solicita SEGD (vista en video) apreciándose cuerpo y antropilórico y asas de delgado en tórax, se solicitan preoperatorios y se realiza abordaje laparoscópico (video), colocándose 5 puertos, 4 de trabajo y el puerto del telescopio, encontrándose como hallazgo cuerpo, antro y píloro así como delgado y colon transverso y bazo dentro de tórax, se regresa todo a cavidad abdominal, se cierra orificio diafragmático con prolene de 0 puntos separados, se coloca parche de malla de propilpropileno, fijándose con prolene 2-0 a diafragma, sin complicaciones, se realiza posteriormente toracoscopia para valorar expansión pulmonar siendo adecuada, tiempo quirúrgico 2 horas. En el postoperatorio inmediato pasó a la unidad de terapia intensiva y a las 24 hrs. a su cuarto con saturación de $O_2$ al 94% y posteriormente al 98% pleurovac drenando menos de 50 mL por día retirándose al 3er día, sin dificultad respiratoria, egresándose por mejoría al 5to día sin datos de dificultad respiratoria o distensión abdominal. **Resultados:** A cinco meses de postoperatorio y de seguimiento radiográfico ha presentado distensión pulmonar al 100%, aumento de peso e inicia actividad física sin datos de dificultad respiratoria. **Comentario:** El abordaje laparoscópico es una alternativa para el manejo de la hernia diafragmática en paciente estable, sin datos de insuficiencia respiratoria, con baja morbimortalidad.

**V-70**

**RESULTADOS DE SEIS AÑOS DE EXPERIENCIA EN EL MANEJO ENDOSCÓPICO QUIRÚRGICO DE HERNIA INGUINAL. CON TÉCNICA TAPP**

Nava PC, Reyes EJ, Galicia TM, Moreno CJ, Molina PJ, Perea LH, Coronado BJ, Sánchez GL, Jiménez LL. Hospitales Generales 1A, 2A, 194 IMSS. México D,F.

**Introducción:** Estudio prospectivo multicéntrico lineal efectuado durante 6 años en 247 pacientes de manera electiva: aplicación de malla de polipropileno vía endoscópica. Predominio del sexo masculino 97% de los casos: edad promedio 45 años. Mayor frecuencia lado derecho e indirecta 70%, inguinoescrotal bilateral 4% y mayores de 70 años. **Métodos:** Se efectuó técnica endoscópica transabdominal preperitoneal (TAPP), bloqueo peridural 85% de los casos, presión media de neumoperitoneo 8-10 mmHg, decúbito dorsal, posición Trendelemburg, identificación de la región, reducción del defecto, aplicación de malla y fijación de la misma, cierre de peritoneo y de incisiones abdominales. **Resultados:** Buenos en el 97%, inicio vía oral en 6 hrs, analgésicos en el 10%, recuperación y egreso en 8 hrs, incapacidad laboral 7 días, seguimiento de pacientes por 2 años vía telefónica y consulta externa, no hay rechazo al material protésico ni complicaciones hasta el momento. Complicaciones postquirúrgicas mediatas, hidrocele, perforación vesical, seroma un caso. Dos casos de conversión, uno por adherencias múltiples postquirúrgicas (abdomen traumático), otro por neumocele diagnosticado erróneamente como recidiva. **Conclusiones:** 1. Técnica recomendable institucional, paciente con tratamiento ambulatorio. 2. Requiere conocimiento anatómico y endoscópico de la región para evitar complicaciones. 3. Iniciar procedimiento con asesoría de expertos. 4. Las complicaciones más frecuentes que se presentaron fueron hemorragia, seromas y deslizamiento de material protésico.

**FP-71**

**MINIMALLY INVASIVE STRATEGY FOR HYDROCELE OF THE CORD OR SCROTUM IN CHILDREN**

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Hydrocele of the cord or scrotum is a common condition in infancy that usually presents at birth. In most children with hydrocele, the processus vaginalis closes and the hydrocele resolves during the first 12-18 months of life. The recommended management of hydrocele is therefore to observe the patient without surgery for the first 2 years of life. We have performed 358 laparoscopic percutaneous extraperitoneal closure (LPEC) procedures in 288 children with inguinal hernia, including 35 with hydrocele. Of these 35 patients, 15 (2-5 years of age) had communicating hydrocele, 11 (1-5 years of age) had noncommunicating hydrocele associated with a contralateral inguinal hernia, and the remaining 9 (2-6 years of age) had noncommunicating hydrocele of the scrotum. The laparoscopic correction of hydrocele involves high-circuit suturing of the processus vaginalis, as in LPEC for inguinal hernia. The distal part of the noncommunicating hydrocele is left open via the internal inguinal ring or a small incision in the scrotum. No occurrence or recurrence of hydrocele was observed in the 358 LPEC procedures in our series. The advantages of this procedure are not only cosmetic and minimally invasive closure, but also a lower risk of injury to the spermatic duct or vessels and complete closure of the communication between the peritoneal cavity and the hydrocele to a greater or lesser degree.

**FP-72**

**LAPAROSCOPIC TECHNIQUE IN THE COMPLICATED POST-OPERATIVE**

Fiolo E, Staltari JC, Benavides F, Capellino P, Pienni L.

**Background:** The irregular postoperative evolution is a challenge to the surgeon. The irruption of the laparoscopic surgery facilitated the indication of reoperation, with a minimum aggression and the possibility to diagnose and solve the situation. **Objective:** To evaluate the results obtained with the diagnostic and/or therapeutical laparoscopic in patients with complicated postoperative. **Setting:** Mar Del Plata. **Patients and methods:** Retrospective study includes 158 patients treated in Private Hospital and Colon Clinic from Mar Del Plata, Argentina, from January 1996 till February 2003. The reason for the indication of this method, the intraoperative findings, the benefit of imaging diagnosis, the results of this method, the mortality and the factors that influenced it, were evaluated. **Results:** Laparoscopic technique was indicated in postoperative pain in 88 patients (56%), sepsis in 26 (16%), intestinal obstruction in 18 (11.5%), hypovolemic shock in 18 (11.5%), bile lake in 6 (4%) others 2 (1.5%). Imaging studies were performed in 111 patients (70%), being them irrelevant in 15%, with false negative or 62.5%. The procedure was therapeutic in 75% cases. The mortality rate was 15%, 17 patients died from sepsis, 2 from mesenteric thrombosis and 4 from other causes. **Conclusion:** When a postoperative complication is suspected, the laparoscopic approach is an option to diagnose and treat it.

**V-73**

**ENDOSCOPIC INSTALLATION OF TENCKHOFF CATHETER WITH A MODIFIED TECHNIQUE WITH OMENTUM PEXIA**

Roman-Montoya MF, Zárate-Castillo JA, Ávila-Olguín MA, Padilla del Toro F. HGZ 2 “A” Francisco del Paso y Troncoso, Instituto Mexicano del Seguro Social. Servicio de Cirugía General. Ciudad de México

Continous Ambulatory Peritoneal dialysis (CAPD) in Mexico is considered the best method for the management of end stage renal failure but the failure of the system by Tenckhoff catheter dysfunction can be seen in almost 20% of the patients when the installation is made in open surgery. The most frequent cause is obstruction by omentum to improve this situation endoscopic operative placement of the catheter with omentum pexia has been advocated. With the endoscopic operative placement of the catheter with omentum pexia has been advocated. With the endoscopic operative placement the catheter dysfunction is seen in only 10% of the cases without omentectomy. The common endoscopic technique requires six operative ports, and for optimal results requires the realization of omentectomy with a prolonged operative time, an increase surgical manipulation and morbidity. In order to solve the current problems with the endoscopic Tenckhoff catheter installation we design the technique shown in the video. We propose a simplified procedure with the use of only three operative ports (one for the camera and two auxiliary ports of 5 mm), the omentopexia to the round ligament with only one suture of non-absorbable material and without suture for the distal extreme of the catheter with the next advantages:
1) Short surgical time. 2) Low insufflation pressure with lower risk of cardiopulmonary dysfunction in a patient with high risk. 3) Early utilization of the catheter. 4) Lower probability of herniation. 5) Lower infection risk. 6) Lower probability of catheter dysfunction mediated by omentum obstruction.

**FP-74**

**LIVING DONOR LAPAROSCOPIC HAND ASSISTED NEPHRECTOMY**

Villalobos-Alba A, Montes de Oca J, Carbajal-García R, Ventura F. Hospital “Valentín Gómez Farías” ISSSTE, Guadalajara, Jalisco, México.

**Purpose:** Minimally invasive nephrectomy has demonstrated better acceptance in living donors than open donor nephrectomy. Its advantages are the related to the laparoscopic technique. Less postoperative pain, less hospitalization days, less complications related to the incision and better cosmetic results. The hand assisted approach offers the minimally invasive advantages, taking benefit from the incision that is necessary to extract the organ, to introduce the non dominant hand. This enables the surgeon to diminish the learning curve, decreases operating time and warm ischemic time, decreases the intraoperative bleeding and enables tactile sensation. **Methods:** We previously perform the technique several times in a porcine model. After that, the operation for living donor with transplant purposes was made. Under right flank position, using two 10 mm trocars and a hand assisted device, the left colon is medially retracted. The urether is identified and dissected longitudinally. We open the Gerota’s fascia, the renal vein is identified and renal attachments dissected. Identify and dissect adrenal and gonadal veins. Dissect renal artery and vein, locked with polyethylene clips and the kidney is extracted through the hand assisted port. The kidney is perfussed and prepared for transplantation. **Results:** We obtained renal artery and vein with a long suitable for transplant. The operative bleeding and warm ischemic time were shorter than reported for laparoscopic approach. **Conclusions:** Hand assisted living donor nephrectomy is a safe and effective technique as the pure laparoscopic, very reproducible and with some advantages upon the pure laparoscopic technique.

**FP-75**

**LAPAROSCOPIC PLACEMENT OF HEPATIC ARTERY CATHETER FOR REGIONAL CHEMOTHERAPY INFUSION: TECHNIQUE, BENEFITS, AND COMPLICATIONS**

Franklin Jr. ME, González JJ, Glass J, Cantú Jr FJ.

**Purpose:** To evaluate whether laparoscopic placement of a hepatic artery catheter for regional hepatic chemotherapy is safe and feasible. Approximately 15-18% of patients diagnosed with colorectal cancers present with metastases confined to the liver. Although many may undergo a liver resection procedure, some will not be candidates for surgery or will have recurrence of liver disease within the first 2 years following liver metastasis resection. For this subset of patients, regional hepatic chemotherapy, including intra-arterial chemotherapy, has been shown to improve control of the disease and, in some cases, prolong survival. With the advent of laparoscopic surgery and its application to more and more advanced procedures, the possibility of laparoscopic placement of a chemotherapy infusion catheter into the hepatic artery with all the advantages of a minimally invasive approach appears to be a viable alternative in our hands. **Methods:** From November 1993 through February 2002, 20 patients (12 male, 8 female)successfully underwent laparoscopic placement of a hepatic artery infusion catheter at the Texas Endosurgery Institute. Correct placement of the catheter was confirmed bye methylene blue injections via the hepatic artery catheter at the time of surgery. Chemotherapy was generally initiated in the immediate postop period. Mean age was 68.3 years with a range of 46-82 years. Twelve of the patients (60%) had previous abdominal surgery. There were twenty-seven major laparoscopic procedures performed at the time of hepatic artery catheter placement. There were no conversions to an open procedure. **Results:** Mean operative time was 186 minutes (range 125-280 minutes) and mean blood loss was 132 cc (range 20-300). These values include the 27 major concurrent laparoscopic procedures performed at the time of catheter placement including 18 cholecystectomies, 7 colectomies, and 2 liver resections. Median hospital stay was 3 days (range 3-25 days) with a median return to regular diet of 3 days. There were no intra-operative complications and no median return to regular diet of 3 days. There were no intra-operative complications and no deaths secondary to catheter placement. There were 2 late complications for an overall rate of 10%. All 17 patients with residual hepatic disease, in whom chemotherapy was successfully instituted, showed regression of their metastases by abdominal CT scan criteria and CEA levels. **Conclusions:** Laparoscopic hepatic artery catheterization is both feasible and safe. It incurs all the benefits of a minimally invasive procedure and can be performed at the time of laparoscopic colectomy to avoid the necessity of a second procedure.

**FP-76**

**TEN YEARS OF EXPERIENCE IN LAPAROSCOPIC SURGERY IN A PRIVATE GENERAL HOSPITAL IN MEXICO CITY**

Fernandez J, Benavides M, Alberto M, Gómez, J, Baqueiro A.

**Objectives:** The objective of this study is to analyze the impact of the laparoscopic technique in the general surgery service in our hospital. Looking for the most frequent procedures and its evolution in this institution. **Materials and methods:** This is a linear and retrospective clinical trial, developed between January 1993 and December 2002. The archives of the OR have been reviewed, and only general surgical procedures have been included. We looked for type and frequency of the procedures, and the correlation between open surgery and its increment during these years. **Results:** During this period we noticed the progressive increment in this technique, at the beginning, in 1993, only the 17.6% of were laparoscopic, now a day, in 2002, the number has increased to 50.3%. Of 12000 general surgical procedures made in 10 years, 4661 were laparoscopic (38.2%). The cholecistectomy (n=2759, 59%), diagnostic laparoscopy (n=877, 18.8%), appendectomy (n=454, 9.7%), funduplication (n=339, 7.2%) and inguinal hernia repair (n=176, 3.77%) were the most frequent procedures. After 877 diagnostic laparoscopic procedures reviewed in this period, 59% (n=517) of the patients were admitted with the diagnosis of acute abdomen. Of this number, we observed that appendicitis (n=325, 63%), gynecologic pathology (n=82,16%), diverticulitis (n=15.3%), and complicated peptic ulcer disease (n=5,1%) were found 20.83% (n=971) of the laparoscopic procedures were urgencies and 79.17% (n=3690) was elective surgery. **Conclusion:** The laparoscopic surgery in our hospital has increased through years. The most frequent procedure is the cholecistectomy and the appendectomy. Now a day the laparoscopic surgery is very useful, not only for treatment but also as a diagnostic tool. Although we have made the vast majority of laparoscopic procedures in our hospital, the laparoscopic hernia repair is not well accepted.

**FP-77**

**SUBARACHNOID ANALGESIA IMPROVES RECOVERY AND SHORTEN LENGTH OF STAY AFTER LAPAROSCOPIC SIGMOID COLECTOMY**

Rotholz N, Estruch C, Lencinas S, Peczan C, Haidbauer A, Mezzadri N.

**Background:** Laparoscopic colectomy permits an early postoperative discharge mostly because a reduction of pain. **Aim:** To evaluate the role of combines epidural analgesia in reducing length of stay after laparoscopic sigmoidectomy (LS). **Methods:** Data was prospectively collectes on all patients with diverticular disease who underwent laparoscopic sigmoidectomy between September 2001 an April 2003. Patients with other diseases and emergency surgeries were excluded. Those patients who received preoperative subarachnoid morphine analgesia (SMA) were compared with a standard group (S) of causes. The group of patients with SMA received morphine (250-350 mcg) with or without clonidine (50-75 mcg) at the L1-L2, L2-L3, or L3-L4 intervertebral space. The postoperative care plan was otherwise identical between the two groups. All patients were matched by sex, age and ASA status. **Results:** 74 patients had the eligible criteria for this study. All of patients underwent a laparoscopic sigmoid resection, 58 patients were included in S group whereas 16 in the SMA group. There were no differences in operating time. No difference in postoperative complications was identified comparing the two groups. The median length of stay was significantly shorter in the SMA group (SMA 2.5 ± 1.0 *vs* S, 3.2 ± 1.2 days; p – 0.04). Tolerance to liquids and solid food was significantly earlier in the SMA group (liquids SMA 0.6 ± 0.7 *vs* S 1.4 ± 1.0 days; p – 0.01 and solids; SMA 1.5 ± 0.7 *vs* S, 2.4 ± 1.1 days; p = 0.01). There was no difference between the groups regarding the period of passage of flatus and stool. No complications related to the subarachnoid procedure were identified. No difference was recorded in postoperative complications beween the groups. **Conclusions:** Subarachnoid morphine analgesia improves the time of dietary tolerance and reduce the length of stay after laparoscopic sigmoid colectomy.

**FP-78**

**LAPAROSCOPIC *VERSUS* OPEN RESECTION FOR DIVERTICULAR DISEASE. A CASE-MATCHED STUDY**

López-Kostner F, Fullerton D, Pinedo G, Soto G, Molina ME. Digestive Surgery Department, Pontificia Universidad Católica de Chile.

**Purpose:** To assess the advantages of laparoscopic *versus* open surgery for elective resection of diverticular disease of the colon. **Methods:** We retrospectively compares early results in laparoscopic and open approach for segmental colectomies in the treatment of diverticular disease. The laparoscopic group (LG) included all laparoscopic assisted colectomies for elective resection of compromised colon with diverticula from January 1999 to October 2003. As a control group (CG) we selected consecutive patients operated on via open surgery in the same period. Cost analysis was made by an independent bureau including funding used for covering of expenses for work absence. **Results:** We operated on 33 patients via laparoscopic and 39 patients via open surgery. The mean age (± SEM) was 50.5 ± 2.0 years in LG and 59.3 ± 1.7 years in CG (p = 0.001). There were no statistical differences in gender, ASA classification or history of previous abdominal surgery. The sigmoidectomy/hemicolectomy ratio was higher in the laparoscopic group (p = 0.012). The mean operative time was 63 min higher on LG. Three (10%) of the laparoscopically operated patients experienced postoperative complications: one had an haematoma on a port site, the second had an intermittent rectal bleeding (both were managed conservatively) and the third had an ileorectal anastomotic stenosis, repaired via laparotomy after failure of endoscopic dilation. On CG 13 patients (33.3%) had postoperative morbidity all treated medically (p = 0.019). The overall study of cost did not show any difference in both groups (6,173 US $ on the CG and 5,954 US $ on the LG).

| | Operative time (min) | Morbidity | Need of intensive or intermediate care | Hospital Stay (days) | Liquid feeding (days) | Flatus pass (days) |
|---|---|---|---|---|---|---|
| Laparoscopic group (n = 39) | 156 ± 7.3 | 33.3% | 70.2% | 5.7 ± 0.4 | 2.57 ± 0.2 | 1.7 ± 0.2 |
| Control group (n = 30) | 219.7 ± 9.2 | 10% | 24% | 13.7 ± 1.2 | 5.9 ± 0.3 | 4.28 ± 0.3 |
| p-value | < 0.001 | 0.019 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |

**Conclusion:** Laparoscopic approach for elective diverticular surgery in safe and feasible, and it have benefits in terms of a lower rate of postoperative complications, earlier discharge from hospital associated with a shorter postoperative ileus and fewer requirements of analgesia. The overall cost of both approaches to this surgery are comparable.

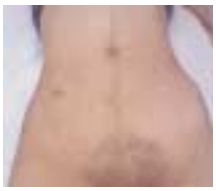
**V-79**

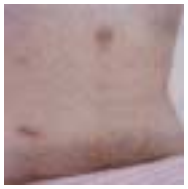
**ABDOMINOPERINEAL AMPUTATION PLUS PERINEAL COLOSTOMY (SILVA'S TECHNIC) BY LAPAROSCOPY**

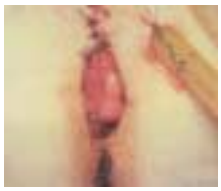
Melani AGF, Pandini LC, Oliveira ATT, Véo CAR.

**Purpose:** Describe the technic of abdominoperineal amputation (Mile's) plus perineal colostomy designed by Alcino Lazaro da Silva by laparoscopy. **Methods:** Patients with lower rectum cancer many times must be submitted to Mile's surgery with permanent abdominal colostomy. This technic is better performed by means of laparoscopic approach in several situations. Many patients refuse

this surgery because of permanent colostomy. On the other hand the Silva's perineal colostomy permit these patients a new alternative. Until now this technic has only been realized through laparotomic way. In this video we show how these two surgeries can be done by laparoscopic way. Patients in the Loyd Davies position with the right arm next to the body. Five ports (10 mm umbilical, left flanc and left iliac; 5 mm right flanc and 12 mm iliac right position). Fix these trocars to the skin. We start dissecting the peritoneum, medial to lateral 3 centimeters from Aorta duplication with the ultrasonic scalpel. Then the hypogastric nerves, left ureter and left gonadal vessels are identified. After the dissection of inferior mesenteric vessels a vascular stapling is performed. Then we dissect by medial to lateral above the mesenterium of the left colon. We dissect and make the liberation of the left flexure. Identification is made and the left colic vein beside the duodenum is clipped. Next we dissect the rectum until the pelvic floor. The perineal time is the classic Mile's surgery. The surgical specimen is cut. We put a compress in the perineum and then we make a new pneumoperitoneum. The colon is picked with the left flanc trocar below the ribs. A 4 centimeter linear incision is made in the site of the left flanc trocar 3 cm below the left ribs. The colon is taken by this incision and 3 seromyotomy (1 cm wide each) are made with the distance of 10 centimeter one to the other. These seromiotomyes are closed with continuous scissure non absorbable propylene 4-0 stich. The colon is put into the abdominal cavity again and exteriorized in the perineum. We close the perineum and the perineal colostomy is made. In the postoperative, patients leave the hospital in 5 days and performed an enteroclism to get the stoil continence themselves. **Conclusion:** This surgery can be made by laparoscopic approach with great benefits for these patients.


Laparotomic approach


Laparoscopic approach


Perineal view

**V-80**

**VIDEO DEMONSTRATION OF STEP-BY -STEP TECHNIQUE OF MESORECTAL EXCISION AND AUTONOMIC NERVE PRESERVATION FOR MID AND LOW RECTAL CANCERS**

Kumar D, Mamazza J, Boushey RP, Schlachta CM. The Centre for Minimally Invasive Surgery, St. Michael's Hospital, University of Toronto.

**Background:** The laparoscopic approach to rectal tumors is still being evaluated, Mesorectal excision (ME) with autonomic nerve preservation (ANP) is now considered standard operative treatment for resectable mid to low rectal tumors. The use of neoadjuvant radiotherapy is being used more frequently in these patients. **Purpose:** The effect of radiotherapy on the tissues and planes and ability to proceed with laparoscopic surgery has not been evaluated. **Methods:** We have been approaching patients with rectal tumors that are resectable laparoscopically for over ten years and therefore we have considerable experience with laparoscopic ME with ANP for rectal cancer in patients with or without preoperative radiotherapy. We have developed a video of our technique and in it demonstrate ME with ANP in patients who have mid to low rectal cancer and have received preoperative radiotherapy. The steps outlined include:

1. Selection of port sites
2. Sharp mobilization of the left colon
3. Identification of the left ureter
4. Identification and preservation of the autonomic nerves
5. Intracorporeal high vessel ligation
6. Sharp mesorectal dissection
7. Determination of proximal and distal resection sites
8. Division of the rectum with stapling device
9. Extracorporeal resection through the wound protector
10. Reconstruction using circular stapling device
11. Testing of the anastomosis using insufflation

**Conclusions:** Laparoscopic ME and ANP in patients who have had preoperative radiotherapy is technically feasible, adheres to good oncologic principles, allows safe reconstruction of gastrointestinal continuity and preserves the nerves essential for bladder and sexual function.

**V-81**

**MINIMALLY INVASIVE COLECTOMY: MINILAPAROTOMY APPROACH TO COLON CANCER**

Takegami K, Kawaguchi Y, Kubota Y, Watanabe T, Nagawa H.

**Purpose:** Many studies have proved the safety and early recovery of the patients after a laparoscopic colectomy (LC) in comparison to a conventional colectomy (CC). However, LC requires special instruments, complicated techniques and high cost, which are burden for doctors, hospitals and patients. We have introduced a minilaparotomy colectomy (MC) technique which can perform all the operative procedures openly through incisions measuring from 3 to 7 cm, and without using any of special instruments. We will describe about our MC technique and compare the outcome with that of LC and CC. **Methods:** The operation was started with an incision, measuring from 3 to 5 cm, extended if necessary but not to over 7 cm, in the left or right lower quadrant. The peritoneum was opened and then sutured with corium in four places to protect and reduce the thickness of the abdominal wall, in order to make the rest of the operative procedures easier. Firstly removal of colons was performed followed by legation of vessels at the root and harvesting lymph nodes. All anastomoses were performed using stapling techniques. The small intestine was kept *in situ* during the entire procedure. **Results:** The patients consisted of 27 MCs, 8 LCs, and 24 CCs. The patients' characteristics and the oncological clearance were similar in the three groups. The mean operation time, blood loss, length of the skin incision, postoperative time to walking and starting oral intake were significantly smaller in the MC and the LC group than the CC group. The cost for laparoscopic instruments requires more than 130,000 yen per surgery. **Conclusion:** Our minilaparotomy colectomy is a minimally invasive technique which maintains almost the same curative resection for colon cancers as LC and CC. It allowed for an earlier postoperative recovery as LC, but without complicated techniques and high cost for the operation. The minilaparotomy colectomy is thus considered to be an attractive alternative to colon surgery.

**V-82**

**LAPAROSCOPIC MONITORED COLONOSCOPIC POLYPECTOMY (LMCP): INDICATIONS AND SURGICAL TECHNIQUE DESCRIPTION**

Tristán A, Morris EF Jr, Berghoff KR, Abrego-Medina D. Texas Endosurgery Institute, San Antonio-Tx, USA.

The purpose of this video is to illustrate the technique of Laparoscopic Monitored Colonoscopic Polypectomy (LMCP) developed in our institution for difficult resection colonic polyps because of its size or localization. **Methods:** We edited a video with all the important pearls of this technique as well as the indications and conclusions. All the video has an audiodescription of the procedure. **Results:** 6.07 min lenght videoclip in AVI and JPEG format compatible with Windows Media Player (WMP). **Conclusions:** The use of a combined endoscopic-laparoscopic approach provides a valid alternative to treat difficult polyps. LMCP eliminates the morbidity of a segmental resection often needed for polyps too large to be removed with standard colonoscopy. Difficult polyps identified during LMCP that turn out to be malignant can be treated laparoscopically during

the same operation, avoiding the need of a laparotomy or second procedure.

**FP-83**

**INTRACORPOREAL LAPAROSCOPY HAND-SEWN COLONIC ANASTOMOSIS: RESULTS OF AN ANIMAL MODEL IN PIGS**
Soto G, Fullerton D, Pinedo G, López-Köstner F. Digestive Surgery Department, Pontificia Universidad Católica de Chile.

**Purpose:** Analyze the feasibility and safety of laparoscopic intracorporeal hand-sewn colonic anastomosis performed in an experimental model in porcines. **Methods:** Under general anesthesia we inserted four ports and incised the sigmoid colon using harmonic scalpel. We performed a one-layer continuous suture with two threads of Vycril 3/0 on the incised colon. We instilled air through the anus and tested the anastomosis observing if there were leakage of air bubbles under saline solution. In a first stage we performed a pilot study operating on five animals to evaluate the anatomy and laparoscopic procedure, these animals were sacrificed immediately and their results were not included in the final analysis. The second stage consisted in operating on 37 porcines and necropsy after 7 days, we recorded postoperative complications and relevant outcomes. On eleven animals a colonic preparation was performed using oral Phospho-soda by an oro-gastric tube one day before surgery. **Results:** In all pigs a laparoscopic anastomosis was performed and there were no conversions to open surgery. The median operative time was of 60 min (considering the start of colonic incision up to closure of skin). One animal died during the procedure because of respiratory insufficiency (necropsy did not show any intra-abdominal complication). The median passing of stools was 2 days. The morbidity rate was of 16% (three port site infections, two port site hernias and 1 seroma). The necropsy on the seventh day did not revealed peritonitis, abscesses nor haemoperitoneum. In one animal a 3 mm anastomotic dehiscence was found without clinical signs of leakage. There were no differences on morbidity comparing prepared *versus* non-prepared colon. **Conclusion:** Laparoscopic intracorporeal hand-sewn anastomosis of the colon is safe and feasible in a porcine model, with low morbidity and mortality rates. Mechanical washout of colon may not influence outcome of the anastomosis.

**V-84**

**NERVE AND SPHINCTER SAVING LAPAROSCOPIC SUPER-LOW ANTERIOR RESECTION FOR LOWER RECTAL CANCER**
Tanaka J, Endo S, Ishida F, Hidaka E, Nagata K, Deguchi Y, Yamaguchi Y, Yamaguchi K, Kudo S. Digestive Disease Center, Showa University Northern Yokohama Hospital, Yokohama, Japan.

Laparoscopic-assisted colectomy (LAC) is getting popular in Japan, however, indication and surgical procedure of laparoscopic-assisted resection of the rectum has not been established, especially for lower rectal cancer. The aim of this study is to show our indication and surgical procedure of laparoscopically assisted super-low anterior resection of the rectum (s-LAR, anastomotic line is less than 4 cm from anal verge) for lower rectal cancer. Laparoscopic surgery for colorectal cancer was indicated based on clinicopathological analysis of colorectal cancers resected conventionally. During resent two and half years, 21 patients out of 106 patients with lower rectal cancer underwent s-LAR including 8 patients treated with laparoscopic s-LAR, five men and three female. Patient's position and trocar placement were same as laparoscopic-assisted low anterior resection. Lymphadenectomy along the inferior mesenteric artery was performed and superior rectal artery was dissected preserving hypogastric sympathetic nerves, then left colon was mobilized dissecting the lateral peritoneum along the Toldt's white line. Mesorectum and lateral ligaments were dissected preserving the pelvic autonomic nerves carefully and dissection was continued towards the lavator any muscle under laparoscopic view. Resection of the rectum was performed laparoscopically with endoscopic linear stapler or transanal procedure under direct vision of the lumen and tumor in the lower rectum. Anastomosis was done with circular stapler by using double stapling technique or per anal hand-sewn procedure. Intraoperative complications were not experienced. Postoperative anastomotic leakage occurred in one case, then temporary covering ileostomy was added. The patients recovered quickly and were discharged. Laparoscopic-assisted s-LAR can be performed safely and effectively in patients with early lower rectal cancer.

**V-85**

**LAPAROSCOPIC TECHNIQUE FOR COLON AND RECTUM CANCER TREATMENT**
Moreno JC, Fons O. Sanatorio de la Trinidad Palermo Clínica del Oeste.

Since Dr. M. Jacobs did the first laparoscopic colectomy in 1991, the method has received compliments and criticisms in the treatment of colon and rectum cancer. We describe, through our private practice, the principal steps for its realization in malignant diseases of colon and rectum. **Material and methods:** Between July of 1999 and October of 2003 there have been done 23 colectomies. Preoperating preparation with disodium phosphate and oral prophylaxis antibiotic. Sequential description of the surgical steps: pneumoperitoneum, trocars collocation, intraoperating endoscopy, mobilization of the colon, ureter visualization, devascularization, colon resection, specimen extraction, suture, final laparoscopy. **Results:** 2 conversions (adherence to ureter, and infiltration to small intestine), 7 complications (ischemic colostomy, 2 anastomotic fistulas, prolonged ileus, cardiac insufficiency, 2 urinary infections). No mortality. The patients sauntered and began oral ingest in the first 12 h. Catharsis before the 48 h. Clinic discharge between 48 to 72 h (except complication). Return to personal activities in the first 7 days. **Conclusions:** The technique presents advantages: less ileus, rapid ingest and saunter, less analgesic intake, less clinic permanence, quick return to normal activities, less surgical stress and therefore less immunosupression. No inherent complications to the laparoscopic technique. We believe that the technique is suitable for the surgeon once he has got laparoscopic surgery experience.

**V-86**

**LAPAROSCOPIC ABDOMINOPERINEAL RESECTION**
Puntambekar SP, Gurjar A, Sathe R, Kulkarni J.

**Introduction:** Abdominoperineal resection (APR) is a well established procedure for the treatment of cancer of lower rectum. Total mesorectal excision, where in the posterior dissection is done sharply has resulted in improved survival world over. The magnification offered in laparoscopy greatly facilitates this dissection besides decreasing the blood loss as well as preserving the nervierigentes since the specimen is removed perinially it avoids abdominal incision there by decreasing both the morbidity as well as hospitalization. **Methods:** We have performed 32 Laparoscopic APR's in the last one year. We use 5 ports two 10 mm and three 5 mm ports. The average surgical time is 90 minutes and none of the patients have needed blood transfusion. The abdominal dissection is completed laparoscopically and an end colostomy done, in the left iliac fossa. The specimen is delivered through the perineal incision. Total mesorectal excision was achieved in all patients. **Results:** There were 25 males and 7 females. All had adenocarcinoma of the rectum. Twenty six had Dukes B2 and 6 had B1. None of the patients had nodal metastasis. The average time taken was 2 hours, and the average blood lost was 100 mL. The average hospitalization was 4 days. No conversion was needed. Two patients needed revision of colostomy and one patient had postoperative intestinal obstruction which got relieved by conservative treatment. There was no mortality. **Conclusion:** We feel that for rectal cancers laparoscopy achieves the same oncological clearance, but at the same time decreases morbidity and hospitalization. Ewhether it achieves the same survival will need further follow up.

**V-87**

**LAPAROSCOPIC ABDOMINOPERINEAL RESECTION AS A TREATMENT OF SIGMOID COLON CANCER WITH ANAL MARGIN IMPLANTATION**

Balagué C, Targarona EM, García A, Pey A, Kobus C, Davins M, Gaya JM, Medrano R, Garriga J, Trias M. Service of Surgery, Hospital de Sant Pau, UAB, Barcelona. Spain

Anal canal and margin implantation of colorectal cancer is a very unusual situation. The video shows a laparoscopic abdominoperineal resection performed in a 69 years old patient diagnosed of colon cancer at 20 cm of anal margin with multiple liver metastases and tumor implantation in anal margin confirmed by histological study. Sphincter infiltration forced the laparoscopic abdominoperineal resection instead the local excision of anal implant.

**FP-88**

**LAPAROSCOPIC PRIMARY CHOLEDOCHORRHAPHY**

Bustos S, Omelanczuk P, Isaguirre J, Nefa J, Minotto C. Hosp. Italiano de Mendoza. Clínica Pelegrina. Mendoza Argentina.

**Purpose:** In our country choledocholithiasis is about 15 to 20% percent of gallbladder lithiasis. If choledocholithiasis is not resolved by ERCP or by transcystic duct approach, a choledochotomy is mandatory. To do a primary choledochorrhapy, at least five conditions must be demonstrated: No history of pancreatitis, no cholangitis, no biliary lithiasis, adequate CBD walls for suture, a free papilla. **Methods:** In a one-year period, 48 common bile ducts were explored. All patients underwent laparoscopic intraoperative cholangiography, and common bile duct exploration was done via choledochotomy in 24 patients. Dormia basket under fluoroscopic or choledochoscopy control was used for exploration of the CBD. After stones were removed, we evaluated the five conditions to do a primary choledochorraphy: A cholangiography can demonstrate the permeability, - a preoperative ERCP or a nuclear magnetic resonance cholangiogram can be helpful too, - whereas indirect evidence is provided by the duodenal expansion by flushing the Common bile duct. Through choledochoscopic examination we demonstrate that the papilla is open, we go across the papilla with a Dormia basket and open it into the duodenum and can see the air reflux from the duodenum. The best proof is the laparoscopic choledocho-duodenoscopy. A running suture with non-traumatic material is used to perform the choledochorraphy. **Results:** Twenty-four primary choledochorraphies were performed without mortality; there were two cases of minimum cholerrhage at the beginning of the experience. The middle operating room time was two hours. The maximum hospital stay was four days. There was no reintervention, residual lithiasis or convertion to open surgery. **Conclusions:** We conclude that this technique is safe and avoids the well-known complications of T-tube use. In order to do this procedure the five conditions must be demonstrated.

**FP-89**

**GASTROJEJUNAL ANASTOMOTIC STRICTURE AFTER ROUX-EN-Y GASTRIC BYPASS: ENDOSCOPIC MANAGEMENT WITH SAVARY DILATOR**

Pérez BG, Escalona PA, Fernández JI, Norero ME, Ibáñez AL, Guzmán BS. Departamento de Cirugía Digestiva, Facultad de Medicina Pontificia Universidad Católica de Chile. Santiago-Chile.

**Purpose:** The Roux-en-Y gastric bypass (RYGBP) is currently considered the gold standard of bariatric surgery. The success of the restrictive component of this procedure requires a small 11 mm), gastrojejunal stoma, which frequently (up to 12 percent) complicates with stenosis. The treatment of choice for this complication is the endoscopic ballon dilatation. The purpose of this study is to evaluate the efficacy and safety of ambulatory management of gastrojejunal stenosis after RYGBP, using endoscopically guided Savary dilators. **Methods:** Between January 1998 and October 2003 a total of 769 patients underwent RYGBP and where followed prospectively. Five hundred and twenty (68 percent) underwent open surgery and 248 (32 percent) laparoscopic surgery, 562 (73 percent) were female. Mean age of 38 ± 12 years and a mean BMI of 43 ± 6 kg/m$^2$. All patients had a 10 – 15 cc gastric pouch and jejunal alimentary Roux limb of 150 – 200 cm. Patients with symptoms suggesting gastrojejunal stenosis were referred for upper gastrointestinal endoscopy, and if the diagnosis was confirmed, the patient underwent dilatation with Savary dilators of increasing size up to 11 size. A second procedure was performed if necessary a week later. **Results:** A total of 71 dilatations were performed on 53 patients who had a confirmed gastrojejunal stenosis (6.9 percent), with a mean of 1.3 dilatations per patient. Forty one patients (76 percent) needed only one dilatation, nine patients (16.7 percent) needed two, three patients (5.5 percent) needed three, and only one patient (1.8 percent) needed four dilatations. Gastrojejunal stenosis was found in 37 (5.5 percent) and 26 patients (10.2 percent) that had an open laparoscopic RYGBP respectively ($p = 0.02$). The mean time for the first dilatation was 51 ± 28 days after surgery (range 20 – 178 days). All dilatations were done in an ambulatory settings, and none of them had complication. **Conclusions:** The management of gastrojejunal stenosis can be effectively done with endoscopically guided Savary dilators, in an ambulatory settings. This procedure has the advantages to be a simple, economic and well tolerated treatment, with a high rate of success and low rate of complications. The laparoscopic RYGBP in our series has a higher rate of gastrojejunal stenosis in comparison to open RYGBP, although this could be a related to the learning curve of this technique.

**FP-90**

**ROUTINE USE OF ABDOMINAL DRAINS AFTER LAPAROSCOPIC ROUX EN Y GASTRIC BYPASS. RETROSPECTIVE REVIEW OF 593 PATIENTS**

Chousleb E, Szomstein S, Podkameni D, Soto F, Lo Menzo E, Higa G, Kennedy C, Zundel N, Rosenthal R. Department of Minimally Invasive Surgery & The Bariatric Institute. Cleveland Clinic Florida. The Bariatric Institute. Cleveland Clinic Florida, Weston Fl. Department of Minimally Invasive Surgery. Cleveland Clinic Florida/Fundación Santa Fe de Bogotá, Colombia. The Bariatric Institute. Head, Minimally Invasive Surgery. Cleveland Clinic Florida, Weston Fl.

**Background:** The authors reviewed the benefits of routine placement of closed drains in the abdominal cavity following Laparoscopic Roux en Y Gastric Bypass (LRYGB) for the treatment of morbid obesity. The purpose of the study is to determine whether routine closed abdominal drainage provides diagnostic and therapeutic advantages in the presence of complications such as bleeding and leaks. **Materials and Methods:** The medical records of 593 consecutive patients who had undergone LRYGB form 07/2001-05/2003 were retrospectively reviewed. In all cases antecolic antegastric LRYGB was performed. Two 19 Fr. Blake closed suction drains (Johnson & Johnson Medical NJ) were left in place, one at the gastrojejunostomy and the other at the jejunojejunostomy. Incidence of bleeding and leaks was reviewed, and the contribution of the drains in their diagnosis and management was evaluated. **Results:** Bleeding presented in 24 patients (4.4%), in 8 patients, the diagnosis was made with increased bloody output of the drain and drop in hematocrit. Of the 10 patients (1.68%) who presented with leaks, diagnosis within 48 hours postoperatively was made in 5 patients (50%) based on the characteristics of the drain output. Non operative management with drainage and total parenteral nutrition was achieved in 5 (50%) of the 10 patients with leaks. There was no mortality in the series. **Conclusion:** The routine use of abdominal drains after LRYGB has proven to be beneficial in our series. Drains allow early diagnosis of complications and in most cases, the treatment of leaks. Intractable bleeding generally requires immediate surgical therapy.

**FP-91**

**PRE-OPERATIVE WEIGHT LOSS IMPACTS THE PERI-AND POST-OPERATIVE COURSES OF PATIENTS URDERGOING LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS**

Drasin T, Gracia C, Estakhri M, Frickle D. Center for Advanced Surgical and Interventional Technology (CASIT), David Geffen School of Medicine at UCLA, Los Angeles, CA.

**Introduction:** Bariatric surgery has become the standard of care for morbid obesity, and the laparoscopic Roux-en-Y gastric bypass (LRY) is the most commonly performed minimally invasive bariatric procedure in the USA. The aim of this study is to determine whether pre-operative weight loss may be correlated with benefits to patients undergoing LRY. **Methods and procedures:** A retrospective analysis was conducted on a series of 280 LRY cases performed between March 2000 and June 2003. At the time of initial consultation all patients had been asked to lose weight prior to their operations. Experimental groups were defined in terms of whether subjects lost more or less than 5% of their percent excess body weight (PEBW) between the time of consultation and the day of surgery. Outcomes such as operative time, conversion rate, length of stay, post-operative complications, and weight loss were compared between groups. Data were analyzed using Student's t-test and chi-squared analysis. **Results:** Subjects who lost more than 5% of their PEBW prior to surgery were found to have significantly shorter operative times fewer non-GI complications, and tended to lose more of their PEBW during the year following the procedure.

| Pre-op Change in PEBW | Mean operative time | Incidence of Non-GI complications | Mean PEBW Loss 1 year post-op |
|---|---|---|---|
| Lost < 5% | 117 minutes | 17.5% | 63.8% |
| Lost > 5% | 106 minutes | 7.1% | 68.2% |
| p-value | 0.003 | 0.007 | 0.21 |

**Conclusions:** Patients who lost more than 5% of their PEBW prior to undergoing LRY enhanced their peri-operative and post-operative courses. These results support the benefits of requiring all patients selected to undergo LRY to lose at least 5% of their PEBW prior to undergoing the procedure.

**FP-92**

**ISOLATED LAPAROSCOPIC VERTICAL SLEEVE GASTRECTOMY FOR SUPEROBESE OR HIGH-RISK PATIENTS RESULTS IN WEIGHT LOSS WITH MINIMAL MORBIDITY**

Lee CM, Cirangle PT, Feng JJ, Jossart GH. Department of Surgery, California Pacific Medical Center, San Francisco, California, USA.

**Purpose:** Paradoxically, the patients who most need the technically challenging laparoscopic duodenal switch to achieve adequate weight loss are superobese patients who are at the highest operative risk. Performing just the restrictive component of the DS, an isolated laparoscopic vertical sleeve gastrectomy (VG), is a lower risk option for this group of patients. **Methods:** VG was performed in either superobese patients (BMI > 60 kg/m$^2$) or those of high operative risk (significant cardiac/pulmonary disease). By stapling along a 32 Fr bougie, a greater curvature gastrectomy is performed to create a 60-80 mL gastric tube. Bovine pericardium Peristrips® or bioabsorbable Seamguards® were used to buttress the staple-line for diabetic patients or if there was staple-line bleeding. **Results:** Between Nov 2002 and Oct 2003, 20 patients underwent VG. The mean age was 42.9 years (range 25-61) and 16 were female. The mean preop weight and BMI was 360 ± 84 lbs and 56 ± 13 kg/m$^2$, respectively. Of the 20 patients, 9 had a BMI > 60 kg/m$^2$, 7 had a BMI of 50-60 kg/m$^2$, and 4 had a BMI of < 50 kg/m$^2$. The mean OR time was 96 ± 33 mins, the mean EBL was 47 ± 22 cc, and the mean length of stay was 2.7 ± 0.8 days. No readmissions, complications or deaths have occurred in this group.

| | | | | | |
|---|---|---|---|---|---|
| Wt Loss (lbs) | 32.5 | 49.5 | 64.5 | 83.1 | 117.2 |
| % EWL | 17.1% | 27.8% | 40.2% | 42.3% | 49.0% |

**Conclusion:** Superobese and high-risk patients are at significant risk for complications with the DS operation. Isolated laparoscopic VG can, with minimal morbidity, achieve significant weight loss. A completion laparoscopic DS may be an option for patients who do not achieve adequate weight loss.

**V-93**

**LAPAROSCOPIC MANAGEMENT OF AN INTERNAL MESOCOLIC HERNIA FOLLOWING LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS**

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Laparoscopic Roux-en-Y Gastric Bypass (LRYGB) is the treatment of choice for morbid obesity. The most common postoperative complications include: bowel obstruction due to stenosis at gastrojejunostomy, internal hernias, mesocolic stenosis; staple line failure, bleeding and metabolic events. We present the case of a 44 year old female who underwent LRYGB and was discharged from the hospital without any complication. Two weeks later she was admitted to the hospital complaining of abdominal pain, nausea, vomit and abdominal distention. Abdominal X-ray exams showed upper small bowel obstruction. There was no response to conventional medical treatment, so the surgical approach was decided upon. Laparoscopic reintervention revealed a ruptured stitch and an internal hernia trough the mesocolic defect. The bowel segment was then reduced and fixed with 4 circumferential stitches to the mesocolic orifice. The patient recovered uneventfully and was discharged once normal bowel transit confirmed by X-ray evaluation. In this video we show that the laparoscopic approach to the LRYGB complications is feasible. We also emphasize the importance of mesenteric and mesocolic defect closure and bowel fixation through these opening in order to prevent bowel obstruction secondary to internal hernias.

**V-94**

**LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS**

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Surgical treatment provides the best results for the management of the morbid obesity. Laparoscopic Roux-en-Y gastric bypass has been considered the gold standard. This video shows a laparoscopic Roux-en-Y gastric bypass performed to 32 year old woman with morbid obesity (BMI = 43 kg/m$^2$). Patient completed the standard obesity program of our Institute. The video highlights our surgical technique. We use five 10-12 mm trocars. The jejunum is transected approximately 50 cm from the Treitz angle and a latero-lateral jejuno-jejunostomy is performed between 100 cm from the transection line. A small gastric pounch on the leser curvature is constructed with linear staplers. A end to side gastro-jejunostomy of approximately 1.5 cm in diameter is handsewn. The jejunal loop is brought up in a retrocolic and antegastric fashion. All defects are closed with non-absorbable sutures and one perianastomotic suction drain is left in place. Recovery of the patient was uneventful and she was discharged after radiologic evaluation of the gastro-yeyunal anastomosis on the 3$^{rd}$ postoperative day.

**V-95**

**LAPAROSCOPIC REPAIR OF GASTRIC PROLAPSE AFTER ADJUSTABLE BANDING FOR OBESITY**

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**Description: Purpose:** The goal of this video is to demonstrate surgical techniques for repairing gastric prolapse, a common complication of the bariatric operation laparoscopic adjustable gastric banding. **Method:** Video highlights from 15 laparoscopic operations. **Re-**

**sults:** All patients underwent exploratory laparoscopy for suspected gastric prolapse. There were no conversions to laparotomy. In the initial two cases, the band was removed and a new device replaced. In the remaining operations, the band was saved by either reducing the herniated fundus or unbuckling the band *in situ* and repositioning it. The repeat gastric plication is also displayed. Laparoscopic repair was successful in all patients. **Conclusions:** Gastric prolapse is a common complication of laparoscopic banding for morbid obesity. Using the techniques illustrated and described, laparoscopic repair and salvage of the band is possible in the vast majority of cases.

**FP-96**

**ASGB PROLAPSE AND EROSION. FEARED COMPLICATIONS**

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**Description: Background:** When talking about surgical procedures for obesity, the most important aspects that should be discussed are results and complications. The Lap-Band has shown to be a highly effective procedure so long as there is a proper use of its adjustability. If we take into consideration the trans and post-op complications, the Lap-Band has proven to be less invasive than other obesity surgical procedures because they are not as severe and can be treated by laparoscopic approach, thus decreasing the morbidity and mortality rate. The most feared complications in this procedure are prolapse and erosion. Prolapse, which is a slippage of the gastric fundus through the band, results in gastric obstruction, which, in return, requires surgical intervention. The main cause of early prolapse is sudden vomiting, which in turn, is caused by bad eating habits. The reported slippage rate is 1-15%. Erosion is defined as the penetration of the band into the gastric lumen. Its etiology is not well defined as it can be attributed to a number of causes. Among these, we can include gastric wall lesions, NSAIDs, OH-, smoking, foreign body, ischemia, infection, surgical technique, band adjustment, etc. **Objective:** Our main objective is to analyze the most important late post-op complications of the Lap-Band which are prolaple and erosion. It is important to know how to diagnose and treat these complications as well as how to avoid them. **Materials and methods:** From January 1997 to December 2002 we have performed Lap-Band surgery on 600 patients using the pars flaccida technique. This group included 438 females (73%) and 162 males (27%). The median age was 32 ranging from 14 to 62 years. The average weight was 138 kg (90-222 kg) with an average BMI of 46 kg/m$^2$ (35-75). **Results:** Within our group of 600 patients 5 of them (0.83%) have presented prolapse. All 5 of them presented it 8 months after the surgical procedure. The triggering factor in all cases was vomiting and this due to bad eating habits. The band was removed by laparoscopic approach in two cases, it was replaced in two of them and one was reoperated by another group. There have been 22 reported cases of erosion and not one has been detected in the last 200 patients. The main signs and symptoms that have been related to erosion are satiety loss, vague upper GI symptoms and loss of adjustability. Fifteen patients presented access port infection, of which 8 of them had chronic fistulae. 7 of the 22 patients with erosion were asymptomatic (the erosion was detected through a routine endoscopic study). Only 11 patients (50%) have had the band removed by laparoscopic approach with 0% mortality and the other 11 patients are still in control. **Comments:** As mentioned earlier, the main cause of early prolapse is sudden vomiting but in some cases it may be mistaken with band misplacement, which also requires surgery. To avoid prolapse, we recommend high placement of the band, improve eating habits to elude vomiting and to perform band adjustments only when necessary. Some surgeons recommend suturing the gastric fundus to the new pouch to avoid this complication. Personally we do not see how this technical aspect could be of great importance since the slippage occurs months after the procedure is performed. The treatment for this complication is band removal, band replacement or band removal and replacement. As for erosion, the most important study for this diagnosis is endoscopy. In all 22 patients the erosion was diagnosed in the first 18 months after the surgery. The endoscopic study shows that the band erodes from the external portion of the gastric fundus (fundoplication) as opposed to eroding from the internal portion of the GE junction as mentioned by some surgeons. We recommend performing a yearly routine endoscopy in the first two years after the procedure. Erosion does not imply emergency surgery but laparoscopic band removal should be contemplated.

**V-97**

**LAPAROSCOPIC GASTROPLASTY WITH DOUBLE PARTIAL GASTRIC TRANSECTION FOR PATIENTS WITH MODERATE OBESITY: A NEW RESTRICTIVE PROCEDURE**

Braguetto I.

Currently, surgery is the unique treatment than reduce permanently the EWL > 50%. Medical treatment usually is ineffective in patients with severe obesity. All different endoscopic or surgical therapeutic options have advantages and disadvantages and up to now there is no ideal operation and all patients must be closely followed with multidisciplinary approach, (diet, exercise, life-sytle, psychiatric support, etc). In this paper we propose a restrictive operation for patients with unresolved moderate obesity in spite of multiple multidisciplinary conservative treatments. This operation creates a small subcardial pouch (less than 80 mL capacity) through an oblique 6-8 cm transection of the lesser curvature 2 cm below the EGJ to the gastric fundus, complemented with a second partial transection of the greater curvature by appliying Endogia devices 2 cm below the first transection in order to perform a channel connecting the subcardial pouch with the distal stomach. We present the preliminary result in 10 patients (BMI 32-38) after 6 months of follow up. No intraoperative or postoperative complications were observed. In all patients a postoperative barium swallow demonstrated a small subcardial pouch. The weight reduction ranged 17-35 kg and EWL range 35-70%. The indications, advantages and disadvantages of this procedure are discussed but we believe that could be a good alternative technique for a selected group of patients.

**FP-98**

**RESULTS OF VIDEO-ASSISTED THORACOSCOPIC OESOPHAGECTOMY AND RADICAL LYMPH NODE DISSECTION FOR SQUAMOUS CELL CANCER OF THE OESOPHAGUS COMPARISON WITH OPEN SURGERY IN A SINGLE DEPARTMENT**

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**Background:** A direct comparison of open surgery and video-assisted thoracoscopic surgery (VATS) for radical oesophagectomy has yet to be published. **Methods:** Medical records of 149 patients with esophageal squamous cell carcinoma who underwent oesophagectomy and three-field lymphadenectomy were reviewed. Seventy-seven patients had the thoracic procedure performed through a 5 cm minithoracotomy and four ports (VATS); the others through conventional thoracotomy (control). **Results:** Number of retrieved mediastinal nodes, blood loss and morbidity were similar in the VATS and control groups (34 *vs* 33 nodes, 284 *vs.* 310 g, and 32 *vs.* 38 percent, respectively). The thoracic procedure took longer in the VATS (227 min) than control group (186 min) ($p < 0.001$). However, blood loss and duration of procedure were less (412 to 161g, and 270 to 185 min, $p < 0.001$), and incidence of pulmonary complication was lower (28 to 5 percent, $p= 0.008$) in the second half of the study. Vital capacity reduction was less in the VATS (15 percent) than control group (22 percent) ($p < 0.01$). Three and 5-year survival rates were 70 and 60 percent and 55 and 57 percent at 5 years, in VATS and control group. **Conclusion:** VATS provides comparable results to open surgery with less surgical trauma. Because results improve with experience, VATS should be limited to centers with high-volume esophageal surgery.