Revista Mexicana de Cirugía Endoscópica

Volumen *Volume* **5** **Suplemento** *Supplement* **1** **Febrero** *February* **2004**

Artículo:

Resúmenes de Posters del P-1 a P-88

P-1

LAPAROSCOPIC APENDECTOMY, ADVANTAGES ON THE OPEN SURGERY

Ordóñez C, Huitron A. Hospital Ángeles México. México City México.

Antecedents: In 1983 Semm reported the first laparoscopic apendicetomy. Schreiber carried out in 1987 the first laparoscopic apendicetomy for acute appendicitis. They have passed more than 10a and the laparoscopic apendicectomy and not had the impact neither and the acceptance that the laparoscopic colecistectomy. **Objective:** To Compare the open procedures against the laparoscopics in sharp appendicitis and to determine the advantages of this finish in our four year-old experience. **Design:** Study retrospective, tranverse, observational, comparative in private patients in Hospital of 3 level of attention. **Patient and methods:** 17 patients were compared which are practiced laparoscopic apendectomy against 22 patients for open surgery. The surgical technique in the laparoscopic was with introduction of the first port without verres needle and without pnenumoperitoneo for the camera and 2 accessory ports: one suprapubic and another subcostal right on-line half supraclavicular, the dissection mesoapendicular was with the harmonic scalpel and in some cases one carries out the clipadura of the apendicular artery. The Apendectomy was type Pouchet with suture endoluminal, and the extraction of the piece in some cases through one of the trocars or in endo bag. In the open technique you uses as boarding road Mcburney, Rocky-Davis and line half infraumbilical, with technique of Halsted for apendicectomy. **Results:** In the surgery laparoscopic 10 male patients and 7 were femele of 12 at 40ª with a stocking of 27ª of age, compared against 8 male and 14 female in the open surgery. The time of surgery laparoscopic varies of 45 min up to 120 min with an average of 80 min; compared with 20 min up to 120 min with an average of 50 min in the open one. The time of hospital stay varies from 24 to 72 h in the laparoscopic procedure with an average of 36 h and of 48 to 72 h in the open procedure with an average of 48 h. The phases (with pathology result) that were for the laparoscopic they were 5.88% for phase 0, I and IV respectively, 47% for phase II and 35% for phase III. In the open surgery the result was the following phase 0 13.63%, phase I 27.27%, phase II 9.09%, phase III 36.36% and phase 4 18%. In the surgery laparoscopic there were not conversions neither postoperative complications compared with 3 infections of surgical wound in the open surgery. The postoperative recovery with total reinstatement to its normal life was of 10 days for the laparoscopic and of 17 days for the open surgery. **Conclusions:** In this study in population's small sample one observes that the apendicetomy for laparoscopic offers some advantages against the open procedure as 1) Decrease of infection of the wound, 2) Decrease of the hospital stay, 3) Return but quick to the normal activity, 4) Smaller postoperative pain. The disadvantages are bigger surgical time and a high cost for procedure.

P-2

BARRANTES'S SIGN IN PATIENTS WITH ACUTE APENDICITIS IS IT A HELPFUL SIGN?

Salinas G, Saavedra L, Valdivia BC, Angulo H, Tamayo JC, Rodríguez W, Ramírez E, Arturo Orellana A.

Purpose: We describe a sign of vascular dilatation in the paricta peritoneum of the right illiac fossa that is easy to identify and can be useful in the intraoperative laparoscopic diagnosis of acute apendicitis. **Methods:** Twenty patients underwent laparoscopic appendectomy since June 2003 until October 2003. The preoperative diagnosis was acute appendicitis. With the 10 mm laparoscope inside the abdominal cavity was entirely explored and including the parietal peritoneum comparing the right and left illiac fossa. The 20 videos were reviewed by a surgeon that did not perform the operation and the findings described. **Results:** A vascular dilatation in the parietal peritoneum in the area of the right illiac fossa is easily found related to the cases of acute appendicitis. Acute appendicitis correlated with the sign in 16 patients, whereas other diagnosis than acute appendicitis was reported in the remaining 4 patients: lymphoid hyperplasia (3) and vascular congestion (1). The sensibility and specificity was 100% and 75% respectively. Positive predictive value was 94% and the negative predictive value was 100%. **Conclusions:** Sometimes acute appendicitis is difficult to diagnose, even thoug by laparoscopy, the organ may be difficult to find. Barrantes'sign may be used as an useful intraoperative finding, with high sensibility and negative predictive value.

P-3

POSITIVE PREDICTIVE VALUE OF LEUKOCYTE INDEX IN ACUTE APPENDICITIS

González JJ, Betancourt JR, Olvera C, Cevallos A, Perez J, García LE, Saavedra EA.

Backgraund: Abdominal pain is a common medical challenge among patients admitted to the emergency departments world wide. The various underlying causes of pain range from benign processes to acute life-threatening disorders. More than 250,000 appendictomies are performed in the United States each year making it the most common abdominal operation performed on an emergency basis. History and physical examination remains the cornerstone in evaluating abdominal pain in the right lower quadrant although diagnosis is not always straightforward; diagnostic possibilities are usually broader in premenopausal women and pose more difficulty in patients at the extremes of age. Other causes for confusion are delays in seeking medical care and difficulty obtaining a history or performing an accurate physical examination. There is enough evidence in the literature proving that delay in diagnosis and treatment are associated with an increased rate of perforation of appendicitis and consequently in higher morbidity and mortality rates, making timely intervention mandatory. Along with the history and physical examination, laboratory studies, X-rays, ultrasound and CT scan may be helpful in establishing the diagnosis. Complete blood count is the most valuable laboratory test, with increases in the leukocyte count being the more common issue found (60-85%) in previously healthy individuals with appendicitis; however, patients at extremes of age, taking antibiotics or with any type of immune compromise have a slower leukocyte response sometimes leading to a normal leukocyte count in the presence of acute appendicitis. It has been demonstrated in previous scientific papers that increased leukociyte and neutrophil counts are the most frequent findings in patients with acute appendicitis and that some of the patients with normal leukocyte count have abnormally high neutrophil count. **Method:** To asses the positive predictive value of the leukocyte index in patients with acute appendicitis. The leukocyte index is a simple formula designed by one of the authors (JJGM) to reinforce the importance of the neutrophil count in the diagnosis of acute appendicitis. LI = (total leucocytes/linfocytes) x neutrophils. A total of 200 consecutive patients with acute appendicitis were included in the study, 151 male and 49 female, with an average age of 35.3 years (range 18-91). The diagnosis was confirmed histopathologically in all cases. Twelve patients had conditions (D.M., antibiotics, steroids, etc.) that could result in altered leukocyte count and were excluded from the study. **Results:** Of the 188 patients studied, 127 had increased leukocyte counts (67.5%). Leukocytosis occurred in 53% of patients with acute appendicitis grade I, in 70% of grade II, 86.6% grade III and in 76.4% with grade IV, while leukocyte index was greater than 30 in 163 patients (86.7%), 63.5% in grade I, 88.7% in grade II, 93.3% in grade III and 92.8 in grade IV. **Conclusions:** There is an association between the pathologic grade of appendicitis and the total leukocyte count. The leukocyte index increases more frequently than the total leukocyte count in the presence of acute appendicitis expressing a greater positive predictive value.

P-4

COMPARATIVE STUDY: LAPAROSCOPIC *VS* OPEN APPENDECTOMY IN THE AMERICAN BRITISH COWDRAY MEDICAL CENTER, MEXICO CITY

Cervera SA, Flores GL, Beruete K, González JM.

Several studies including randomized trials and meta-analysis have failed to clearly define and prove the advantages of laparoscopic *vs*

open appendectomy. Existing multiple articles in favor and a similar number against. Arguments in favor of laparoscopic appendectomy highlight the shorter hospital stay, less pain, faster recovery, less wound infection, ease to explore the whole peritoneal cavity, and a significant capacity to make differential diagnosis in the OR and solve problems in occasions. To shed some light into the problem we analyzed the cases of appendectomy performed at the American British Cowdray Medical Center in Mexico City in the period between July 1999 and July 2003. There was a total of 2,109 cases of appendectomy, 386 were excluded because they were incidental appendectomies. Leaving 1,723 cases with the preoperative diagnosis of acute appendicitis. Of these 1,042 (60.5%) were treated with open appendectomy and 707 (39.5%) with the laparoscopic technique. The parameters studied were sex, age, operative time, conversion rate, complications, pathology reports, lenght of stay and total hospital cost. **Results:** 807 (46.9%) were male, and 915 (53.1%) female. There was a higher incidence of between the ages of 9-15 years and 32 years. 13 females were pregnant (0.84%), 5 were treated with open surgery and 8 with laparoscopy. Total complication rate was 7.3%, with 77 cases in the open group (4.4%), and 48 (2.7%) in the laparoscopy group. In the pathology reports 990 (57.5%) was reported with acute appendicitis, compared to 586 (56.2%) of the open group. The average cost in the open group was $28,206.78 pesos, while the laparoscopic average cost was $41,548.93. The average lenght of stay was 2.83 days in the open group and 2.76 days in the laparoscopic group. Average operative time was 66.85 minutes in the open group and 96.47 minutes in the laparoscopic group. **Conclusions:** Laparoscopic appendectomy is a safe, effective procedure, it's cost is significantly higher, has a longer operative time our design was not enough to evaluate the difference in diagnostic capacity, faster recovery though. We suggest further study in a prospective randomized trial for comparing these variables.

P-5

LA PERFORACIÓN APENDICULAR NO ES CONTRAINDICACIÓN PARA APENDICECTOMÍA ENDOSCÓPICA

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

Desde la introducción de la laparoscopia para apendicectomía en 1983, hay numerosos avances incluyendo disminución de la estancia hospitalaria posquirúrgica, menos dolor, retorno más rápido a las actividades, así como disminución en los abscesos de pared. **Objetivo:** Establecer que la apendicitis complicada no es una contraindicación para la apendicectomía laparoscópica y que ésta tiene mayores ventajas sobre la técnica abierta. **Material y métodos:** Se revisaron los expedientes de 1,185 pacientes a los que se les diagnosticó apendicitis y posteriormente se les realizó apendicectomía en un periodo de seis años 1995 al 2001 en el HGZ 2ª y HGZ 194 del IMSS. Se realizó apendicectomía endoscópica en 189 pacientes (16%) encontrando apéndice perforada en 134 pacientes y abscedada en 55 pacientes. Todos los casos se trataron con lavado, aspiración y drenaje de cavidad. Se convirtieron a cirugía abierta 10 pacientes (19%). **Conclusiones:** La apendicectomía endoscópica se puede realizar en todos los estadios de evolución aún en los complicados, con otras claras ventajas sobre la apendicectomía abierta.

P-6

COMPLICATED CONVENTIONAL APPENDECTOMY IN A PREGNANT FEMALE PATIENT: TOTAL RESOLUTION BY LAPAROSCOPY

Lancaster B, Robles PP.

Objective: The purpose of this study is to report a pregnant female patient, who underwent conventional appendectomy, she developed acute abdomen. This complication was successfully treated by laparoscopy. **Design:** Description of one case. **Setting:** Third level health care hospital. **Description of the case:** This is a 28 year old pregnant female in her second trimester, who underwent conventional appendectomy one weak prior to her admission to the hospital. The patient developed acute abdominal pain vomiting an fever 24 hours after her initial surgical procedure, she was treated with oral antibiotics, amoxicilina 500 mg q 8 h. She is then admitted to the hospital where her initial physical exam reveals, acute abdominal pain, rebound, tenderness, absent bowel sounds and fever, there is also purulent drainage coming out of the surgical wound in the right lower quadrant, laboratory blood test, 10,500 leukocytes, she was then ataken to the operating room where under general anesthesia laparoscopy is performed using a 5 mm trocar in the left upper quadrant a second trocar was placed in the right upper quadrant in the order to introduce a irrigation canula and been able to copiously irrigate with saline solution and aspirate all the material. Penrose drains where placed and wound closed. Her post op. course was excellent no complications were seen, and she was discharged in satisfactory condition 72 h after surgery. She was seen in the office for follow up on a weekly basis during which time. **Conclusion:** Nowadays endoscopy surgery is considered to be adequate and of great benefit to pregnant patients who develop acute surgical abdomen and requires an effective low morbidity safe procedure.

P-7

LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING IN AN ELDERLY PATIENT

De la Garza J, Salinas G, Saavedra L, Angulo H, Sanchez V. Endoscopia Quirúrgica-Lima-Perú.

Purpose: Laparoscopic adjustable gastric banding is feasible and safe to do in an elderly patient with multiple health problems caused by morbid obesity. **Methods:** We did a laparoscopic adjustable gastric banding in a 80 years 8 months old male patient with hypertension diabetes, asthma, hypercholesterolemia. Weight 142 kilograms, height 1.75 mt, BMI 46. On September 19, 2003, the patient went to the operation room and under general anesthesia in French position. We did the surgery using an Obtech Adjustable Band. The operative time was 1 hour 45 minutes. The patient was discharged after 72 hours. **Results:** Since September 19th to November 6th, he has lost 12 kilograms and we did the first adjustment using ultrasonography to localize the port with 5 cc of NaCl 9% sterile solution. Weight at November 6th 127 kilograms BMI 41,5. **Conclusions:** Even though, Bariatric Surgery is not indicated in patients over 65 years, we show a case of 80 years male with BMI 46 that underwent a laparoscopic adjustable gastric band surgery with good results.

P-8

THE USE OF ULTRASOUND FOR ADJUSTMENT OF THE GASTRIC BAND

Salinas G, Saavedra L, Angulo H, Sanchez V, Orellana A. Maison de Santé del Sur, San Pablo, San Borja Clinics.

Purpose: To show the use of the ultrasound for helping in the localization of the port of the adjustable gastric band for morbid obesity. **Methods:** In some patients with adjustable gastric band with the port difficult to palpate, we uses a 7.5 Mhz probe to localize and help in the punction of the port. The image that can be seen is an hypoerechoic semilunar with a posterior shadow. Measurement of the distance to the surface of the skin and the exact point of puncture is done. **Results:** The high frequency ultrasound can be a very useful tool to localize and help in the puncture of difficult to palpate ports in the adjustable gastric band. **Conclusions:** This method is helpful in the localization of the port avoiding the use of X-ray, it is safe, cheap, is not necessary any help and it is done in the office.

P-9

ARE PATIENTS WITH BMI $\geq$ 60 ELIGIBLE FOR LAPAROSCOPIC ADJUSTABLE GASTRIC BANDING (LAGB)?

Casalnuovo C, Refi C, More M, Menem M. Private Practice (CCO-Centro de Cirugía de la Obesidad), Buenos Aires. Argentina and Hospital de Clinicas, University of Buenos Aires.

Background: A high BMI correlates with more difficult laparoscopic procedures, and it can also affect wight-loss rate, worsening outcomes.

This study aimed at evaluating the role of LAGB in patients with BMI ≥ 60 and at comparing it to a BMI < 60 group. **Methods:** 210 patients operated-on with LAGB (6-68 months follow-up), mean age 42 (16-61), 70.9% female, weight 138.6 kg (93-280), BMI 51 (35-89.3). 35 patients had BMI ≥ 60 (190.1 kg ± 29.9, BMI 69.8 ± 8.3, 48.5% female) and 175 BMI < 60 (127.2 kg ± 23.2, BMI 46.7 ± 6.4, 75.8% female). Similar age distribution. Outcome variables: surgical time, conversion, morbidity and mortality % EWL, WL, BMI, % SR (success rate: EWL ≥ 50%) were evaluated at 3-years follow–up (97%). **Results:** Surgical time was 82 *vs* 118 min (BMI < 60 >) SD (p < 0.001). Conversion occurred only at the beginning of the learning curve, 4 (1.9%) cases with BMI ≥ 60. Morbidity with major and minor complications had no differences in any series and no mortality ocurred in relation to LAGB.

Follow-up 3 y	% EWL	WL (kg)	BMI	% SR
BMI < 60 (n:91)	60.9 ± 22.3	40.8 ± 16.4	32.7	67.8
BMI > 60 (n:30)	60.2 ± 16 NSD	73 ± 19.8 SD (p < 0.001)	41.5 SD (p < 0.001) Respective variation	65.4 NSD

Conclusion: LAGB proved to be suitable, safe an effective for patients with BMI ≥ 60 group (51.5% male), no differences were found in intra or postoperative complications when comparing both groups. Similar % EWL and % SR at 3 years. BMI > 60. Although the surgical time is higher with more technical difficulties in the BMI ≥ 60 group takes longer to reach the same % EWL, rate. LAGB is the simplest procedure among other present techniques (GBP and BPD), that show more morbidity and mortality, especially in patients with high BMI (≥ 60). Long-term, close and assiduous follow-up establish reliable results.

P-10

THE EFFECT OF LAGB ON METABOLIC SYNDROME COMPONENTS

Refi C, Casalnuovo C, More M, Rozas H. Private Practice (CCO-Centro de Cirugía de la Obesidad, Argentina and Hospital de Clinicas, University of Buenos Aires.

Background: The metabolic Syndrome (MS) is characterized by hypertension, dyslipidemia and impaired glucose tolerance (IGT or Diabetes). This group is at high risk of cardiovascular disease. The aim of this study was to evaluate the effect of weight loss in some of MS components after two years of LAGB. **Methods:** Occurrence of Metabolic Syndrome components (MSC) was evaluated in 124 patients in the preoperative phase (BMI: 50.8, 42.1 years mean, F: 72.1%) and 24 months after bariatric surgery; Arterial Hypertension (AHT) Diabetes Mellitus (DM) and Dyslipidemia (DLP). **Results:** A 91.4% of the patients had MSC AHT 62.5%, DM: 35.6%, DLP: 72.5%. 24 months after LAGB, a decrease in BMI (52.5 to 35.5) was observed, also the occurrence of some MSC in a 52.3%. AHT, DM and DLP had either resolved (R) or improved (1) in a 92%, 89.5% and 91.3% respectively (p < 0.001). The non-modification (NM) ranged between 8 and 10.5%.

n: 124	BMI	MSC %	AHT %	DM %	DLP %
pre LAGB	52.5 ± 11	91.4 (n:113)	62.5 (n:78)	35.6 (n:44)	72.5 (n:90)
post LAGB	35.5 ± 8.2	52.3 (n:65) I+NM	R: 37 1:55 NM:8	R: 49.1 1:40.4 NM:10.5	R: 21.5 1:69.8 NM:8.6
% Variation	↓ 61.8	↓ 43.1	↓ 92	↓ 89.5	↓ 91.3

Conclusion: Patients with BMI > 35, have a high prevalence of MS components. After LAGB with an effective weight loss, either a resolution or significant improvement of AHT, DM and DLP ocurred.

P-11

BOWEL OBSTRUCTION AFTER LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS

Lopes JBS, Vemulapalli P, Farkas D, Gibbs KE, Goodwin A, Teixeira J.

Objective: Small bowel obstruction (SBO) is seen after laparoscopic Roux-en-Y gastric bypass surgery (LGB). We reviewed our institutional experience, looking at our incidence occurrence, time frame and etiology of SBO with a retrocolic, retrogastric technique. **Methods:** Between 2001 and 2003, 216 consecutive patients underwent LGB at our institution by a single surgeon. Patient follow-up was between 2 and 28 months. Data was analyzed utilizing Student's t-test or chi-square where appropriate. **Results:** Nine patients (4.2%) developed SBO requiring further surgical intervention. There were 8 females and 1 male, mean age 37 (range 27-52) and mean BMI 52 (range 39-67). Mean time to SBO occurrence was 92 days (range 4-313). Etiology was found to be either internal hernia in 3 patients (1.4%) or adhesions in 6 patients (2.8%). Three patients (50%) with adhesive SBO had prior open surgery. Two patients (22%) with adhesive SBO required bowel resection. One patient died in the adhesive group as a result of digitalis toxicity.

	n	*Time until Re-op (days)	*Wt Loss at Re-Op (kg)	Nausea + Vomiting	Abdominal Pain	*WBC (k/uL)	*Granulocyte %	*LOS (days)
Adhesions	6	41	17	83%	83%	14	85%	20
Internal Hernias	3	194	43	0%	100%	7	64%	5
P-Value		0.24	0.02	0.4	9	0.12	0.05	0.12

*All values are averaged

Conclusion: Retrogastric, retrocolic LGB has a low incidence of SBO caused by internal herniation. Hernias tend to present later and after significant weight loss. Adhesions were more often the cause of SBO. They occurred earlier in the post-operative period and presented with higher WBC counts with a more pronounced left shift. Patients with adhesions are more likely to require bowel resection at re-exploration.

P-12

LONG TERM RESULTS OF ADJUSTABLE GASTRIC BANDING

Pääkkönen M, Martikainen T, Alhava E, Poikolainen E, Uusitupa M, Gylling H. Unsatisfactory Results in Finland.

The treatment of morbid obesity by exercise, dietetic and pharmacological measures frequently results in failure. Therefore, surgical options are increasingly considered. Adjustable silicone gastric banding (ASGB) is a common bariatric procedure. Long term results are, however, conflicting. We have analyzed our ASGB-operations retrospectively over the last 10 years. Between March 1993 and August 1995 we carried out 36 open and after that 87 laparoscopic gastric bandings until June 1999 (38 males and 85 females). Data of preop. aspects and postop. outcome and weight loss patterns up to 9 years follow-up (mean 55 months) are presented and also evaluated with BAROS. During the evaluation period 54% of patients had complications which needed hospital treatment > 6 days and 52% was reoperated. The band was excited in 33% of patients. Most common late complications were; oesophagitis (30%), "slippage" (21%), incisional hernias (open oper. 9%) and band erosion into the stomach (9%). Mean excess weight loss was after two years 38% and it was later stabilized to 30%. During the evaluation period there were 10 deaths, two of which 30-day deaths. According to BAROS the outcome was regarded as "very good" in 3% "good" in 7%, "fair" in 40% and "failure" in 50%. The cost of weight reduction of one kilo is in our material

960 USD. **Conclusion:** Our long term data reveals that weight evolution is acceptable but the incidence of late complications and reoperations is too high.

P-13

BARIATRIC SURGERY WITH SPECIAL METABOLIC-NUTRITION SUPPORT MAYBE USEFULL TO REVERT SEVERE ORGANIC DYSFUNCTION IN MORBID OBESITY

Fuentes del Toro S. Centro Médico ABC. Centro Médico Nacional "20 de Noviembre" ISSSTE. Mexico, City.

Morbid Obesity (MO) is associates with high frequency to structural and functional damage in multiple organs. Bariatric Surgery (BS) has had a lot of technical and scientific advances, this has improved the physical an functional condition of patients with MO. **Objective:** To evaluate the prolif of laparoscopic adjustable gastric band (LAGB) plus special metabolic support with hypocaloric total parenteral an enteral nutrition (HTPEN) and Growth Hormone (GH). **Material and methods:** We enclosed 8 patients with MO with BMI of 40 kg/m^2 or more, with organic diseases: hepatic steatosis, liver failure grade II, coronary cardiopathy and osteoporosis. They were treated with LAGB and HTPEN with 8 IU of GH by 8 weeks. They were studied with laboratory and image test to evaluate hepatic, renal, pulmonary, and cardiac function, this studies enclosed, nitrogen balance, tomography scan by gamma emission of myocardium, hepatic gammagraphy and osteodensitometry. **Results:** It was observed improvement in organic failures. **Conclusion:** It maybe a useful system to treat MO with severe organic failures, and it will be important to evaluate this method in a largest group of patient to be sure of its clinical benefit.

P-14

LAPAROSCOPIC REMOVAL OF GASTRIC BAND AFTER EARLY GASTRIC EROSION. CASE REPORT AND REVIEW OF LITERATURE

Chousleb E, Szomstein S, Lomenzo E, Higa G, Podkameni D, Soto F, Berkowski D, Zundel N, Rosenthal R.

Introduction: Laparoscopic gastric banding is a popular method for the treatment of morbid obesity in Europe, Asia and Latin America. One of the most serious complications of gastric banding is the erosion into the gastric lumen. **Case report:** 42 year old male scheduled for laparoscopic gastric band. Weight 292 lb, height 70 in, BMI 41 and calculated excess weight of 121 lb. He presented symptoms of gastroesophageal reflux and mild to moderate hypertension. Two months later the patient presents to the ER with abdominal pain and fever of 101º UGI and CT scan R/O leak or free air. Band is deflated under fluoroscopic guidance. The endoscopy revealed wall erosion with gastric band partially migrated into the gastric lumen. The patient is taken to the OR for laparoscopic removal. Multiple adhesions and evidence of acute and chronic inflammation was seen in the upper abdomen and along the trail of the band; a small purulent collection was drained during the dissection. Methylene blue and air test were performed intraoperatively, no leaks where detected at the time of the operation. **Discussion:** Migration after laparoscopic gastric banding is a uncommon complication, the incidence occurs between 1-5%. Erosion or perforation usually presents as a late complication although it may occur in weeks. Early erosions are consequence of an unrecognized gastric.

P-15

INCIDENCE OF PULMONARY EMBOLISM IN OPEN *VS* LAPAROSCOPIC GASTRIC BYPASS

Vemulapalli P, Gargiulo N, Gibbs KE, Goodman E, Veith F, Okhi T, Lipsitz E, Suggs W, Wain R, Teixei J.

Abstract not submitted

P-16

LAPAROSCOPIC TREATMENT OF COLONIC DIVERTICULAR DISEASE

Fernandez J, Dorantes MA, Baqueiro A, Gomez JM, Martínez J. Department of Gastrointestinal Surgery. Hospital Español de México.

Purpose: In 1990 Jacobs described the laparoscopic assisted colectomy (LAC), since then, numerous authors have shown that LAC may be performed with the same safety as that performed with open colectomy (OC), but the minimally invasive approach has determined a drastic reduction in the lenght of postoperative stay and in postoperative discomfort, with a faster recovery and return to regular life. However LAC has not received widespread acceptance by the surgical community, critics of LAC note concerns regarding increased complexity, learning curve and cost. The aim of this report is to communicate our initial experience in 41 patients with colonic diverticular disease that were treated laparoscopically. **Methods:** This is a retrospective review of our clinical research study. From April 1995 to August 2003, 41 patients with colonic diverticular disease were submitted to laparoscopic approach. **Results:** We included 41 patients with diverticular disease of the left colon or sigmoid, 26 (63%) with recurrent attack of diverticulitis, 6 (14%) with acute episode and 9 (21%) Hartmann's takedown). There were 26 men (63.4%) and 15 women (36.5%), ages between 34 and 76 years old. 20 patients (48%) had previous abdominal surgery. The mean operative time was 180 minutes. 35 anastomosis were created: 19 (56%) intracorporeal and 16 (45%) extracorporeal. There were 3 conversions to open procedure due to severe adhesions of inflammatory disease. Mean length of stay for all patients was 8.5 days. There were 6 minor complications: (4 due to wond infection and 2 due to haematoma) and 5 major complications (2 due to anastomotic stricture, 1 incisional hernia, 1 anastomotic bleeding and 1 anastomotic leakage). In one patient, laparotomy with Hartmann's procedure was carried out 5 days after laparoscopy due to initial anastomosis leakage. In 6 patients with acute episode Hartmann's procedure was carry out. Mortality rate was 0%. **Conclusions:** We believe that the LAC learning curve is long due to increased complexity of the operations, surgeon's skills and his coordination with the surgical team and equipment. Although at the beginning of our series the operative times were long, currently, we have been able to carry out the laparoscopic procedure in a time and with similar morbidity to the open one, but with the advantages already known of minimal invasive surgery as are; a lower systemic response and convalesce time, less postoperative pain, smaller wounds, less postoperative ileus, and early ambulation. We think that laparoscopic surgery in colonic diverticular disease is able can be carried out with good results in experienced hands.

P-17

LAPAROSCOPIC SIGMOID RESECTION IN AN OLDER PATIENT WITH IMPARED RENAL FUNCTION

Korolija D, Škegro M, Vegar-Brozovič V, Markičević A, Predrijevac D. Clinical Hospital Center Zagreb, Zagreb, Croatia

Today, laparoscopic colorectal surgery is performed more often than several years ago. New results about lesser surgical stress and lesser impact on immune sister have been published in the literature, recently. These findings encouraged surgeons to use laparoscopic approach in older patients with serious comorbidity. **Material and methods:** A seventy-eight year old patient with sigmoid carcinoma was operated via laparoscopic approach. The patient had an impaired renal function with average preoperative creatinin values between 300 and 350 μmol/L. He also had *dementio senilis* symptoms together with reduced respiratory function. **Results:** Tumor was located 20 cm from the anal verge. We have performed central vascular ligation and dissected the mesocolon from medial to lateral side and followed the standard principles of laparoscopic sigmoid resection. The patient was intensively monitored intraoperatively and on the first postoperative day. Postoperatively, liquids were given on the first day. Creatinin values raised to 400 μmol/L, and than returned to the preoperative values, five days after surgery. There was no need for renal support (dialysis). The patient was released after one week, with confirmed Stage III adenocarcinoma. **Conclusion:** Minimally invasive ap-

proach was shown to be adequate for older patients with colon carcinoma. With laparoscopic sigmoid resection performed on this patient findings about lesser surgical stress were confirmed. Laparoscopic surgery can be applied to older patients with serious comorbidity.

P-18

SUBMUCOSE LIPOMA OF THE COLON, CAUSING STRICTURE. WITH LAPAROSCOPIC RESOLUTION

Penissi O, Ortega RJ, Ciaccia J. Centro Policlínico Valencia (La Viña), UNIOBES, Valencia. Venezuela, 2003.

The lipoma of the colon is the second benign tumor of the colon, after the colon adenoma, its more frequent site of bowel localization is in the right colon. Submucosa presentation represents 90% of all cases. Size can vary between one to ten centimeters. The most common clinical presentation is as intermittent abdominal pain, following an intusection, or as inferior digestive hemorrhage due to mucosa ulcerations. Tomographic image is often the way of diagnosis. **Objective:** A bibliographic revision and case presentation of a submucose lipoma of the colon, causing stricture. **Method:** Case presentation of a 43 years old male patient, who came with a three days evolution colic abdominal pain (epigastric and left lower quadrant). Nauseas, feces with mucus. The physical examination reveal: normal vital signs, stable, light abdominal distention, left lower quadrant pain, and signs of abdominal irritation. Laboratory reveals leucocytocis. Sedimentation rate high, blood in the feces and normal tumorals markers. Normal abdominal sonography. The CT reveal a image of bowel lesion, at the level of the rectosigmoides union, causing a obstruction of the colonic lumen. Inferior digestive endoscopy shows a space occluding lesion at the left colon. Preoperative biopsy inform as a colon mucosa with multifocal adenomatosos changes, and chronic severe inflammation. Intraoperatory was found a invaginated tumor, with serous infiltration at the colon sigmoid. We did laparoscopic hemicolectomy, the patient was discharge en 24 hours. Anatomopatology diagnosis was: Polypoid pediculated submucosa lipoma of the colon, causing stricture. With superficial ulcerations. **Conclusion:** Submucose lipoma of the colon is a frequent and benign neoplasia. And the laparoscopic hemicolectomy a excellent choice for its resolution.

P-19

DEPTH OF ENDOSCOPIC PLACED SUTURES

Kleemann MH, Hildebrand P, Lagner C, Bruch HP, Manegold BC.

Purpose: Since March 2001 an intraluminal endoscopic sewing machine (EndoCinch, BARD) is available for treatment of gastroesophageal disease. Beneath this first line indication several authors describe its use in sewing esophageal wall layers, e.g. to fix feeding tubes, to a esophageal-tracheal fistula or esophageal-mediastinal fistula. In a current literature review no data about the depth of endoscopic placed sutures in the esophagus was found. **Methods:** In confirmation with the local ethic committee, we examinated depth of the sutures in 10 human cadavers at 3 different suction levels 0.4 bar-0.6 bar and 0.8 bar, respectively. After preparation of the cadavers and extraction of the esophagus from the mediastinum. Tissue was fixed in formalin and coulered with HE. Mean age of the specimen was 15.3 h *post mortem.* No signs of autoysis were seen. **Results:** Overall we applied 62 sutures intraluminal-endoscopic. In the histological examination no (0%) suture was in the mucosa, 1 suture (1.6%) in the submucosa, 44 sutures (71.9%). In the muscularis propria and 17 sutures (27.4%) transmural: At a suction level of 0.6 bar 85 the sutures lay in the muscularis, 15% were transmural. But even lower suction levels transmural approach of the sutures could be secure. **Conclusions:** To our knowledge, we present the first time a systematic experimental determination of the suture depth from endoscopic sewing machine in the human esophagus intraluminal flexible endoscopic sewing in the esophagus is technically feasible and may offer new indications in interventional endoscopic procedures. But nevertheles with the suction levels used normally in the kardia region a transmision approach of the sutures could be seen, which may lead to perforation.

P-20

LAPAROSCOPIC APPROACH FOR COMPLICATED DIVERTICULITIS

Rotholtz N, Estruch C, Gorodner A, Lencinas S, Peczan C, Iovaldi M, Mezzadri N. Colorectal Surgery Section, General Surgery Department. Hospital Aleman de Buenos Aires. Argentina.

Background: Although laparoscopic surgery is the technique of choice for the treatment of diverticulitis its use in patients with complicated disease is still controversial. **Aim:** To evaluate the results of the use of laparoscopic sigmoidectomy in patients with complicated diverticulitis. **Methods:** Data was prospectively collected on all patients with diverticular disease who underwent laparoscopic sigmoidectomy between September 2001 and April 2003. The patients were divided in three groups: Group I. Recurrent diverticulitis without complication; Group II: Chronic complications (fistulas, stenosis, and history of abscess (Hinchey For II)). Group III. Acute complications (free perforation with peritonitis (Hinchey III)). Statistical analysis was performed using ANOVA and chi square test. **Results:** Sixty nine patients were operated I:48 (70%); II 28 (40.5%); III 6 (8.3%). Forty four males and 25 females (m/f I:28/20; II: 11/4; III: 5/I p = NS). Mean age was 58.3 ± 10.3 years (I:57 ± 11.2 *vs* II:60.5 ± 8.9 *vs* III:61.8 ± 9.3 years p = NS). The conversion rate was significantly higher in group II (I:2 (4.1%) *vs* II:5 (33.3%) *vs* III:0; $p < 0.01$) whereas the time of surgery was longer in group III (I:205.6 ± 50.4 *vs* II:240.3 ± 52.5 *vs* III:247.5 ± 100.2 minutes, $p < 0.05$). There were no differences in morbidity between the groups. The length of stay was longer in group III (I:3.25 ± 1.2 *vs* II:4 ± 2.1 *vs* III: 7 ± 5.2 days; $p < 0.01$). **Conclusions:** Laparoscopic surgery is feasible with good results in any form of diverticulitis. Chronic complications increase the conversion rate and those patients operated in acute conditions spend more time at the hospital.

P-21

USE OF A STERILIZED SANDWICH BAG TO REDUCE WOUND INFECTIONS IN LAPAROSCOPIC COLON SURGERY

Seger M, Chastanet R, Dalgle C, Churchman R, Leggett PL. University of Texas Health Sciences Center Houston, MIST.

Background: Wound infection rates in laparoscopic surgery have consistently been used to compare outcomes with open procedures. The reported wound infection rate in colon surgery typically ranges from 6-12%. Many laparoscopic bags and devices have been utilized for specimen extraction. It has been postulated that these devices may allow for less contamination at specimen extraction sites and thus allow for lower infection rates. **Hypothesis:** The use of a sterilized sandwich bag to facilitate the extraction of resected colon decreases wound infection rates in laparoscopic colon surgery. **Methods:** Heavy duty quart sized sandwich bags are sterilized and used as a liner of the abdominal wall at the extraction site. Any anastomoses or manipulation of the colon is done inside the mouth of the bag. The colon is then returned to the abdominal cavity, and the bag is removed. The fascia is then closed in layers. All patients underwent a preoperative modified Nichols bowel preparation and received preoperative intravenous antibiotics. A retrospective chart review was performed of 100 patients who underwent laparoscopic colon resection. All wound related complications were documented. **Results:** There were 4 wound infections and 1 seroma in the study group. Two of the infections were at a site remote from the colon extraction. **Discussion:** Reports of wound infection in laparoscopic surgery have generally been in the range of 6-12%. The preponderance of these infections are at the specimen extraction site. Our data suggest that the use of a sterilized sandwich bag to aid in specimen removal can significantly decrease the rate of wound infection at the extraction site. Our wound infection rate at the extraction site was equivalent to the rate seen at remote sites. There is an ever increasing demand on surgeons to minimize complications and cost of procedures. Unfortunately, new technology that can help minimize complications frequently drives

up costs. The idea of a specimen bag is not a new one, and many surgeons routinely employ expensive laparoscopic retrieval systems for specimen extraction. A box of sandwich bags can be purchased and sterilized for a fraction of the cost of a single laparoscopic retrieval system. The use of a sterilized sandwich bag is an inexpensive and easy way to reduce wound related complications in laparoscopic colon surgery.

P-22

MINIMALLY INVASIVE APPROACH FOR MANAGEMENT OF STERCORAL PERFORATION OF THE SIGMOID COLON

Saber AA, Diaz J, Miller LA. Michigan State University/Kalamazoo Center for Medical Studies.

Introduction: Stercoral ulceration and subsequent perforation is a rare but often fatal condition. A recent review of the literature showed sixty-four reported cases. We report a case of stercoral ulceration and perforation diagnosed laparoscopically, which allowed for a minimally invasive surgical resection of the perforated sigmoid colon. **Methods and procedures:** A 51-year-old woman with a long history of narcotic intake for chronic pancreatitis presented to the emergency department with acute abdomen, white blood cell count of 17,000 and free air under the diaphragm on plain film of the abdomen. The patient was taken to the operating room for diagnostic laparoscopy for perforated viscus. Exploratory laparoscopy revealed no evidence of perforated duodenal ulcer or perforated appendicitis. Upon further exploration, pneumatosis intestinalis was noted in the sigmoid area. A small transverse incision in the left lower quadrant was performed and the sigmoid colon was extracted. Two perforated stercoral ulcers were noted on the antimesenteric side. An extracorporeal resection of the sigmoid colon with area of pneumatosis was performed. Intraoperative culture of peritoneal fluid was sent. The abdomen was irrigated with warm saline and a JP drain was placed. The fascial defect and skin were closed, and a colostomy and mucous fistula were created. Opening of the specimen revealed two fecalomas with adjacent area of stercoral ulcer. Apart from small abdominal collection that necessitated CT-guided percutaneous drainage, the patient had an uneventful recovery. **Conclusion:** Laparoscopy is a valuable minimally invasive tool for diagnosis and treatment of stercoral perforation of the colon. It can play an essential role in the armamentarium for management an acute abdomen of unknown etiology. Five figures in our complete manuscript will illustrate the management of this patient. These include a preoperative abdominal X-ray, an intraoperative laparoscopic view of the pneumatosis of sigmoid, stercoral perforation, and an open specimen with fecaloma with associated perforations and a postoperative picture for port site.

P-23

MESENTERIC CLOSURE IS NOT NECESSARY IN LAPAROSCOPIC COLECTOMY

Kawamura YJ, Sasaki J, Sakuragi M, Okada M, Kojima M, Konishi F. Department of Surgery, Omiya Medical Center, Jichi Medical School Saitama, Japan and Department of Surgery, Jichi Medical School Tochigi, Japan.

Aim: Mesenteric closure has been a standard procedure after colectomy to avoid the possible risk of mesenteric hernia. However, its clinical advantage has not yet been clearly demonstrated. Recently, laparoscopic procedures have been widely applied in the field of colorectal surgery. Mesenteric closure in laparoscopic surgery is sometimes technically demanding and, in certain situations, complete closure is impossible. The aim of this study was to determine the impact of a left-opening mesenteric defect on postoperative small bowel obstruction (SBO). **Materials and methods:** Patients with colorectal carcinoma (carcinoma of the cecum, ascending colon, sigmoid colon or upper third of the rectum) who underwent oncological laparoscopic colectomy were included in this study. The mesentery of the affected colon or rectum was widely excised with high or low ligation of the corresponding artery. After reconstruction of intestinal integrity, the defect in the mesentery was not closed but left open. The incidence of postoperative small bowel obstruction was prospectively monitored. SBO was defined as complete obstruction for at least 24 hours which necessitated decompression using a short or long tube. **Results:** Ninety-four patients (60 male and 34 female) with mean age of 64 years 11 (range 35-91) were included in this study. The location of the tumor was as follows: cecum (5), ascending colon (8), sigmoid colon (57) and rectum (24). The mean follow-up period was 453 P 36 days. No patient developed SBO within 30 days after the operation. Two patients (2.1%) developed a total of 3 episodes of SBO. One patient underwent surgery, and adhesion responsible for SBO was revealed to be located distant from the mesenteric defect. The other patient developed 2 episodes of SBO, which were both treated with a long tube. **Conclusions:** Mesenteric closure in laparoscopic oncological colectomy is not thought to be necessary, because the incidence of SBO without the mesenteric closure was low.

P-24

EXTRACCIÓN DE CUERPOS EXTRAÑOS POR ENDOSCOPIA

Zamora GJ, Zamora GR. Escuela de Medicina ICSA-UAEH, Pachuca, Hidalgo. Hospital General SSH, Tulancingo, Hidalgo.

Introducción: Se denomina cuerpo extraño a todo objeto o sustancia de diversa índole que se localice en cualquier tejido o cavidad del cuerpo. Las causas pueden ser accidentales, ocupacionales, estados psicopáticos, negligencia o suicida. El diagnóstico se realiza con los antecedentes así como con la endoscopia ya que resulta ser ideal para su diagnóstico y tratamiento. **Objetivo del video:** Demostrar la importancia de la cirugía endoscópica y de la videoendoscopia como herramienta fundamental para su diagnóstico y tratamiento de los cuerpos extraños. **Resultados:** Se presenta un caso de extracción de DIU por laparoscopia, migrado de útero al ligamento útero-ovárico después de 29 años de colocado. Retiro de fragmento de sonda en T seccionado por medio de esfinterotomía. Extracción de probador de pilas de bronquios en paciente de 2 años. Extracción de faringe de espina de pescado, alfiler, hueso de pollo, fragmento de madera, clavo. Extracción de esófago y estómago de diversos objetos: alimento impactado, dije, monedas, pasador, seguro, sonda de Pezzer, fragmento de metal, grapas posterior a cirugía gástrica utilizando endoscopio de canal terapéutico con maniobras mixtas con 2 instrumentos en algunos casos. Extracción de textiloma del bulbo duodenal en paciente con antecedente de 13 años de colecistectomía abierta. Extracción de falo en rectosigmoides. **Conclusiones:** Los procedimientos de cirugía endoscópica y videoscopia terapéutica son de gran utilidad para evitar cirugías abiertas en un porcentaje alto de casos, se debe contar con entrenamiento adecuado y el instrumental requerido para cada caso.

P-25

RESOLUCIÓN ENDOSCÓPICA DE UNA FÍSTULA BILIAR, Y EXTRACCIÓN DE CUERPO EXTRAÑO EN DIVERTÍCULO DUODENAL. REPORTE DE UN CASO

Castro RJM, Delgado CL, Hernández GA, Sobrino CS, Alonso LO, Sánchez MJ.

Presentación del caso: Femenino de 62 años, originaria de Hidalgo, dedicada al hogar, viuda, nivel socioeconómico bajo. Con diabetes mellitus tipo II por rama materna. Su padecimiento actual, lo inicia el 24/06/03 con dolor tipo cólico en epigastrio con irradiación a hipocondrio derecho, acompañado de vómito en repetidas ocasiones, fue manejada con tratamiento médico en institución pública, sin mejoría, se realizan estudios en donde se demostró por ultrasonido y laboratorio, colecistitis crónica litiásica agudizada, se interviene de manera convencional extrayendo vesícula con proceso crónico agudizado, con litos en su interior. Su evolución con presencia de fístula biliocutánea por sitio de penrose, con gasto de 24 hrs de 1,000 cc, se le realiza el 03/07/03 CPRE encontrando lito impactado en ámpula de Vater, divertículo duodenal con presencia de cuerpo extraño que atravesaba la mucosa del mismo, se realizó extracción de lito, con colocación de endoprótesis plástica 10 Fr y extracción de cuerpo extraño. La evolución satisfactoria con disminución de los gastos biliares, resolviéndose la fístula; el cuerpo extraño no provocó perfo-

ración duodenal. En la literatura mundial se reporta una incidencia de divertículo duodenal del 1 al 5% y es una de las principales causas de canulación difícil de la vía biliar, por lo anterior ponemos a su consideración este caso. Contamos con video del procedimiento endoscópico, en donde se observa el cuerpo extraño en el divertículo duodenal, impactación del lito a nivel del ámpula de Vater y la resolución endoscópica de los tres elementos (Extracción de cuerpo extraño y lito, colocación de endoprótesis).

P-26

MANEJO ENDOSCÓPICO DE ESTENOSIS POSTOPERATORIAS DEL TUBO DIGESTIVO CON DILATORES DE BALÓN

Rodríguez VMG, Gutiérrez DJ, Torres MG, Mosqueda G, González y Diaz T.

Introducción: El manejo tradicional de las estenosis postoperatorias del tubo digestivo que no se resuelven espontáneamente ha sido la reintervención quirúrgica con morbilidad y mortalidad elevadas hasta de un 60% en diversas series. Desde el año de 1988 se reporta en la literatura el manejo endoscópico de estas complicaciones con dilataciones usando diversos tipos de dilatadores y más recientemente el uso de dilatadores de balón para manejo de estenosis postoperatorias de los segmentos del tubo digestivo accesibles al endoscopio. El objetivo de este trabajo es presentar los resultados de la dilatación con balón de las estenosis postoperatorias en diferentes segmentos del tubo digestivo, revisar los fundamentos teórico-prácticos de esta técnica así como sus indicaciones, evaluación y preparación previa y sus complicaciones. **Material y métodos:** Durante el periodo de enero de 1998 hasta marzo de 2003 se han llevado a cabo 283 procedimientos endoscópicos en pacientes operados del tracto gastrointestinal. De éstas se han encontrado 63 casos de estenosis postoperatorias de los cuales 21 se resolvieron con manejo médico y 12 ameritaron tratamiento quirúrgico. 30 pacientes reunieron las condiciones para intentar dilatación neumática de anastomosis con balón: 21 pacientes por cirugía de hiato esofofágico y 9 de anastomosis gastrointestinales: 3 gastroduodeno-anastomosis, 4 gastroyeyunoanastomosis, 1 cirugía colorrectal y 1 anastomosis ileorrectal por colitis ulcerativa crónica inespecífica. **Resultados:** 18 pacientes con estenosis por funduplicatura ameritaron un promedio de 3 dilataciones para alivio de la disfagia, 3 pacientes presentaron disfagia posterior a miotomía de Héller más funduplicatura parcial, en dos de los casos la disfagia se resolvió con 2 sesiones de dilatación. El caso con disfagia tardía se resolvió parcialmente, una manometría demostró recidiva de la acalasia por lo que fue reintervenida quirúrgicamente. Los casos de estenosis de anastomosis se resolvieron en forma satisfactoria con 3 a 5 dilataciones excepto un caso de gastroyeyunoanastomosis que presenta reflujo biliar y amerita dilatación cada 6 meses ya que la paciente rehusa la cirugía. **Conclusiones:** La dilatación con balón de las estenosis postoperatorias accesibles al endoscopio tiene un alto índice de éxito con mínima morbilidad y reducen en forma significativa los costos por estancias prolongadas y la morbimortalidad inherente a la reintervención quirúrgica.

P-27

INVASIÓN MÍNIMA EN EL TRATAMIENTO DEL DIVERTÍCULO DE ZENKER

Mata QC, Hernández CA, Villanueva SK, Rendón CE, Martínez JA, Dorado RJD, Soto DBA, Loaiza RP.

Introducción: Desde la descripción de 23 pacientes con divertículo hipofaríngeo en 1877 por Zenker y Von Ziemssen, se han realizado múltiples procedimientos quirúrgicos para el manejo de esta patología. La excisión del saco con cierre hipofaríngeo o suspensión del saco en posición superior (diverticulopexia) son los procedimientos utilizados con mayor frecuencia: ambas técnicas son usualmente desarrolladas además de cricotomía del cricofaríngeo. La división endoscópica del septo entre el saco y el esófago ha sido descrita por Dohlman desde 1960. Actualmente se han descrito técnicas para división del septo por abordaje endoscópico utilizando incisión electroquirúrgica, laser y argón plasma. En 1996 Scher y Richtsmeier realizaron esofagodiverticulostomía con sutura mecánica asistida por endoscopia. **Material y métodos:** Presentamos el caso de paciente femenino de 84 años de edad enviada al servicio de endoscopia por disfagia de 2 años de evolución y pérdida de peso de 8 kg. Al realizar endoscopia se detecta divertículo hipofaríngeo, tomándose biopsias y solicitando estudio contrastado, en el que se corrobora el diagnóstico. La paciente es sometida a esofagodiverticulostomía con engrapadora lineal endoscópica de 35 mm asistida por endoscopia. El procedimiento se realiza en sala de quirófano bajo sedación (sin intubación orotraqueal ni relajante muscular). **Resultados:** El tiempo quirúrgico fue de 45 minutos. Se inició vía oral a las 12 horas del procedimiento, con egreso hospitalario a las 24 hrs. La endoscopia de control se realizó a las dos semanas identificando una adecuada división del septo con línea de sutura mecánica. El control radiológico demostró ausencia de septo sin visualización de saco. Actualmente, a seis meses de la cirugía la paciente se encuentra sin disfagia ni halitosis, con aumento de peso de 6 kg. No se reportan complicaciones. **Conclusiones:** La esofagodiverticulostomía por mínima invasión es un procedimiento eficaz y seguro en el tratamiento del divertículo de Zenker como alternativa en pacientes bien seleccionados.

P-28

HEMATOMA HEPÁTICO SUBCAPSULAR Y SÍNDROME DE HELLP: UN ENFOQUE ENDOSCÓPICO

Nava PC, Gutiérrez RE, Galicia TM, Moreno CJ, Molina PJ, Perea LH, Coronado BJ, Reyes EJ, Sánchez GL. Hospitales Generales 1A, IMSS D.F. e ISSEMYM Satélite.

Los hematomas subcapsulares hepáticos complican la evolución del síndrome de HELLP en un 0.9% de los casos. Son el resultado de las lesiones hepáticas de la preeclampsia, el depósito de fibrina de los sinusoides y la hemorragia periportal. En caso de ruptura la mortalidad materna alcanza el 59%, siendo imperativo su reconocimiento y tratamiento tempranos: en el presente artículo se describe el caso de paciente de 32 años que presentó síndrome de HELLP y hematoma hepático subcapsular, con manejo inicialmente conservador y seguimiento ultrasonográfico y TC, evidenciando sangrado activo. Se realiza drenaje quirúrgico endoscópico, de hematoma (400 cc) a nivel de VI y VII segmentos de Couinaud sin complicaciones, retiro de drenaje sin gasto inicio de vía oral y egreso de cuidados intensivos a las 24 h. Considerando a la cirugía endoscópica como alternativa segura y eficaz en estos casos.

P-29

MANOMETRÍA ANORRECTAL: EXPERIENCIA EN EL HOSPITAL GENERAL "DR. MANUEL GEA GONZÁLEZ"

Trabanino PMA, Castro RJM, López AME, Rodríguez BG.

Introducción: La manometría anorrectal es un método útil para entender la fisiología anorrectal. La indicación más frecuente para la realización de este estudio son la incontinencia anal y el estreñimiento crónico secundario a obstrucción de salida. **Objetivo:** Conocer la frecuencia de las indicaciones y el porcentaje de estudios anormales, en el Hospital General Dr. Manuel Gea González. **Método:** Es un estudio retrospectivo, transversal y descriptivo, basado en las manometrías anorrectales realizadas durante el periodo comprendido de enero del 2000 a diciembre del 2003. Se analizaron las siguientes variables, socio-demográficas, indicaciones y diagnósticos finales. Las manometrías anorrectales se realizaron con el paciente en posición de Sims, previo colocación de uno o dos enemas evacuantes y tacto rectal. Se introdujo catéter con balón (10 cm de longitud y 400 mL de capacidad), conectado a un polígrafo Synetics. Se evaluaron las presiones del esfínter anal interno y externo, longitud del conducto anal, complianza, sensibilidad y reflejo anal inhibitorio. **Resultados:** Se realizaron 178 manometrías anorrectales, de las cuales fueron 137 mujeres y 42 varones, con una media de edad de 45.6 años (1-88 años). Las indicaciones y diagnósticos más frecuentes fueron:

Indicaciones	No.	Diagnóstico final (%)	Normal (%)
Incontinencia fecal	99	82 (82.8)	17. (17.1)
Estreñimiento	22	16 (72.7)	6 (27.3)
Prolapso rectal	22	19 (86.3)	3 (13.7)
Enf. Hirschprung	10	9 (90)	1 (10)
Anismo	6	5 (83.3)	1 (16.3)

Conclusiones: La manometría anorrectal es un método de diagnóstico útil y fácil de realizar y es indicada en varias patologías anorrectales, en nuestro Hospital las indicaciones más frecuentes son: Incontinencia fecal, estreñimiento crónico y prolapso rectal.

P-30

PALIACIÓN ENDOSCÓPICA EN CÁNCER GÁSTRICO MEDIANTE LA COLOCACIÓN DE ENDOPRÓTESIS METÁLICA AUTOEXPANDIBLE. REPORTE DE UN CASO

Castro RJM, Hernández GA, Sobrino CS, ALONSO LO, Sánchez MJ.

Introducción: La paliación endoscópica con endoprótesis metálicas autoexpandibles, ofrece ventajas sobre la cirugía en etapas avanzadas del cáncer a nivel de tuvo digestivo en general. El uso de endoprótesis metálicas autoexpandibles para el tratamiento paliativo de la disfagia, secundaria a cáncer gástrico no es lo común y en la literatura mundial son pocos los casos reportados. **Objetivo:** Presentar un caso de una paciente con carcinoma gástrico en etapa avanzada, con estenosis desde el cardias hasta el antro gástrico manejada con colocación de endoprótesis metálica autoexpansible. **Reporte de un caso:** Femenino de 71 años, Karnofsky 90%, talla 1.58 m, peso 59 kg. AHF: Dos hermanas finadas por CaCu y páncreas, prima finada por CaCu y DM II. APNP: Soltera, labores domésticas, escolaridad primaria, nivel socioeconómico medio bajo. Tabaquismo 3 cigarrillos por día, suspendido en 1991, alcoholismo de tipo social, ingesta de una taza de café al día. APP: Ca canalicular infiltrante, moderadamente diferenciado, mama izquierda, etapa clínica IIA (1991), mastectomía radical modificada tipo Patey (18/04/91). Recibió Qt 6 ciclos, y RT 5,000 cGy, adicionalmente recibió tamoxifén (7 años). En el 2000 evidencia de metástasis pulmonar, se reinicia TMX, se detecta hipertensión arterial e insuficiencia cardiaca (CF II NYHA), manejada con inhibidor de la ECA, diurético, digoxina. PA: En noviembre del 2002 presenta dolor epigástrico, urente, postprandial, con náusea y vómito de contenido alimenticio, ocasional y pérdida de peso de 2 Kg. Se le realiza endoscopia (09/12/02) diagnosticándose cáncer gástrico Borrmann IV con afección desde cardias hasta tercio proximal de antro, ambas caras y curvaturas. El 21/01/03: Colocación de endoprótesis metálica autoexpandible Wallstent enteral endoprótesis 22 mm diam/60 mm long. **Evolución:** El 22/01/03. Alta hospitalaria, asintomática, tolerando V.O. El 04/02/03: Consulta endoscopia, 49 kg, dolor epigástrico persistente, Rx abdomen normal. 18/20/03: Endoscopia con permeabilidad de la prótesis, colocación adecuada. 07/03/03: Ingreso a Urgencias, epigastralgia, pozos de café, hepatalgia, no irritación peritoneal. Manejo sintomático. 09/03/03: Alta por mejoría. 10/03/03: Urgencias, TA: 80/40, FC: 40 x', pO_2: 80%, cs ps con hipoventilación, rs cs rítmicos, bradicardia, abdomen con ascitis, peristalsis 12/03/03: Paciente con falla de bomba, que la lleva al cese de sus funciones vitales a las 2:00 AM.

P-31

COLOCACIÓN DE ENDOPRÓTESIS METÁLICA AUTOEXPANSIBLE COMO TRATAMIENTO ENDOSCÓPICO EN ESTENOSIS POSTQUIRÚRGICA, DE UNA GASTRO-YEYUNO ANASTOMOSIS. PRESENTACIÓN DE UN CASO

Castro-Ruiz JM, Hernández-Guerrero A, Alonso-Lárraga JO, Sobrino CS, Sánchez del Monte J.

Presentación del caso: Masculino de 46 años, campesino, Karnofsky 60%, talla 1.65 m, peso 75 kg. AHF: Hermano DM II, padre finado por Ca vesícula. APNP: Originario de Guerrero, residente de Morelos, campesino, casado, católico, alcoholismo positivo. APP: Negados. PA: Disfagia progresiva de 6 meses de evolución, odinafagia, dolor retroesternal. Por endoscopia (28/12/01) se le diagnosticó un cáncer gástrico Borrmann III con extensión a tercio inferior de esófago, el cual por histopatología se reportó como un adenocarcinoma poco diferenciado, difuso, con células en anillo de sello. Se etapificó como un estadio IV (T3, N3, M0), sometiéndose a dos ciclos de quimioterapia con platino-etopósido (01/2002). Posteriormente se efectuó gastrectomía total D2 con resección del tercio distal de esófago y esofagoyeyunoanastomosis en Y de Roux (23/01/02). Un mes después de la cirugía manifestó disfagia grado III y odinofagia. Se realizó estudio baritado en el que se observó una estenosis central, recta de aproximadamente 3 cm. A la endoscopia (27/02/02) se verificó una estenosis casi total, por lo que se decidió llevar a cabo un protocolo de rehabilitación mediante dilatación combinada con dilatadores de Savary-Guilliard y balón esofágico colónico CRE de 16-20 mm de diámetro y 5 cm de longitud. No hubo respuesta al manejo con dilatadores durante 5 meses y aún cuando por patología no se encontró actividad neoplásica a nivel de la anastomosis, se colocó una prótesis expandible (08/07/02) no cubierta de 20 mm x 60 mm con sistema de liberación de un solo paso (Boston Scientific). Se egresó a las 24 hrs con tolerancia a la vía oral. Al control endoscópico (14/08/02) se observa migración de endoprótesis 3 cm por debajo de anastomosis y estenosis a nivel de la misma, se realiza dilatación endoscópica satisfactoria. Migración de prótesis enteral a intestino delgado (21/08/02). Se realiza LAPE (26/08/02) y enterostomía, retiro de endoprótesis, se intenta colocación endoscópica de prótesis enteral a nivel de la anastomosis siendo fallida. Paciente es egresado el 31/08/02 tolerando adecuadamente la vía oral con dieta blanda. Actualmente su evolución satisfactoria, continúa con protocolo de dilatación endoscópica bimensual, tolerando adecuadamente la vía oral y sin datos de actividad tumoral en los controles endoscópicos y por patología.

P-32

DOUBLE-J STENT DRAINAGE BY ENDOSCOPY FOR INFECTIOUS PANCREAS PSEUDOCYST AFTER LAPAROSCOPIC GASTROCYSTOSTOMY: A CASE REPORT

Hagiike M, Yano T, Goda F, Yachida S, Izuishi K, Okada S, Usuki H, Maeta H. Department of Surgery, Faculty of Medicine, Kagawa University, Japan.

In this era or minimal invasive surgery, laparoscopic surgery of pancreatic pseudocyst (PP) is becoming more widespread procedure of internal drainage. We report the case of a 37-year old man in whom a giant PP developed after acute alcoholic pancreatitis. Chief complaint was early satiety. We examined ultrasonography (US), computed tomography (CT) and magnetic resonance imaging (MRI). The size of PP was 16 x 10 x 13 cm which occupied retrogastric area extended to left lower abdomen. We performed upper endoscopic drainage through the stomach. Drainage was insufficient duo to the presence of highly viscous debris, which was not discharged from the catheter. Laparoscopic procedure was performed using three ports along with upper endoscopy. After finding out PP by laparoscopic US, electric coagulator was used to open the pseudocyst through the posterior gastric wall. Brown dirty discharge was flown out from the gastrocystostomy into the gastric lumen. The diameter of gastrocystostomy was 3 cm. Nasal gastric tube was removed on postoperative day 3. On postoperative day 6, the patient was attacked with high fever with temperature 39 degrees C. The patient did not have any other symptoms. Presence of large amount of food residues and air were detected by postoperative CT at the PP, and were washed out by upper endoscopy. But after starting oral intake, the patient again attacked with high fever. We examined Gallium scintigraphy to detect inflammatory lesion. Only PP area was hot in scintigraphy. The PP was infected due to the small size of anastomosis to drain the cyst. Therefore, we located two double-J stent drainage tubes at the anastomosis by upper endoscopy using cholangiopancreatic drainage technique. After this procedure patient's temperature was decreased in spite of oral intake. Many authors reported satisfactory outcome of laparoscopic

surgery for PP following the procedure without complications. And reported open gastrocystostomy for infectious PP. However, we report this case of infectious PP which was treated by laparoscopic gastrocystostomy and was further drained by a very effective procedure, double-J Stent drainage by endoscopy.

P-33

CURRENT PRACTICES IN THE MANAGEMENT OF BLEEDING PEPTIC ULCER DISEASE IN MALAYSIA

Yunus A Gul
YA Gul, MF Jabar, S Kumar. Department of Surgery, University Putra Malaysia, Serdang, Malaysia Medical Faculty, University Putra Malaysia.

Abstract not submitted

P-34

TRATAMIENTO ENDOSCÓPICO DE LAS ESTENOSIS BILIARES POSTQUIRÚRGICAS. SEGUIMIENTO A 13 AÑOS

Rendón CE, López AME, De la Mora LG, González ARA, Pérez BB, Gómez CX, Zamorano OY, Fernández CE, Arizmendi GA, Martínez MA, Rodríguez VG.

Introducción: Las estenosis biliares postquirúrgicas (EBP) suelen ocurrir después de una colecistectomía laparoscópica con o sin exploración de vías biliares en un 0.2 a 0.5%. El tratamiento endoscópico ha sido descrito por algunos grupos, reportando éxito hasta del 90%. **Objetivos:** Demostrar la seguridad y eficacia del tratamiento endoscópico en las estenosis postquirúrgicas de la vía biliar en la Unidad de Endoscopia Terapéutica del Hospital General Manuel Gea González. Seguimiento a 13 años. **Material y métodos:** El presente es un estudio descriptivo, retrolectivo, longitudinal que incluyó a todos los pacientes con diagnósticos de estenosis biliares postquirúrgicas (clasificación de Bergman clase C). Se registraron: demografía, tipo de lesión (clasificación de Bismuth), pruebas de funcionamiento hepático y complicaciones de acuerdo a la clasificación de Cotton. El protocolo es el siguiente: diagnóstico, colocación de endoprótesis 7 ó 10 Fr y sesiones sucesivas hasta alcanzar diámetro de 30 Fr y cumplir dos años con este calibre con recambios cada 6 meses. Monitoreo con PFH y fluoroscopia cada 3 meses. Se consideró éxito una vez cumplido protocolo existiera mejoría de la estenosis al menos del 75%, ausencia de alteraciones en las PFH y paciente asintomático. En todos los procedimientos se utilizó sedación intravenosa por anestesiólogo. Se excluyeron pacientes con sección completa de la vía biliar y fístula biliar. **Resultados:** Se incluyeron 143 pacientes, con promedio de edad 40 años, con seguimiento de 1 mes a 13 años (promedio 5 años). El número de recambios de las prótesis en promedio fue de 6. De los 143 pacientes, 38 (26.5%) pacientes han completado el protocolo y se ha logrado el seguimiento, 32 con éxito (84.2%), 6 fallas (15.7%), 4 pacientes tuvieron que ser llevados a cirugía y en dos se prolongó el tratamiento con endoprótesis, más de dos años. Los pacientes con falla fueron Bismuth II: 1 Bismuth III: 5, complicaciones: migración 6 pacientes (0.4%) colangitis 2, pancreatitis 2, y fue necesario el recambio temprano (antes de los 6 meses) por alteración en las PFH en 16.8% (24 pacientes con endoprótesis ocluidas, sin datos clínicos de colangitis). **Conclusión:** El tratamiento endoscópico de las estenosis biliares postquirúrgicas es el tratamiento de elección, considerado un procedimiento útil y eficaz con una tasa de éxito elevado, demostrando que las estenosis distales tienen mayor porcentaje de resolución.

P-35

SENTINEL LYMPH NODE TECHNIQUE AND ITS ROLE IN TREATMENT OF ESOPHAGEAL CANCER

Neoral C, Aujeský R, Bohanes T, Vrba R, Klein J, Král V, Koranda P. Palacký University Teaching Hospital Olomouc, The Czech Republic.

Purpose: The presence or the absence of tumor cells dissemination is the most important prognostic factor in all the solid tumors. If the distant metastases are neglected, an involvement of particular level of lymphatic nodes is determinant criterion of survival (the parameter N in TNM classification). Japanese studies are the opposite to certain doubts against the benefit of enlarged lymphadenectomy by improved survival of patients with tumor in the upper part of GIT; they proved better survival in esophageal cancer. These studies, however, emphasize the benefit of D2 lymphadenectomy only in patients, whose N parameter is positive, while no improvement of the prognosis was observed in N0 stage. Because enlarged lymphadenectomy has some disadvantages, it is necessary to consider the indication of such a lymphadenectomy for a patient in relation to the benefit of procedure. A technique of sentinel lymph node (SLN) biopsy could be a hopeful method enabling relatively precise finding out dissemination of tumorous cells into the nodes. It enables even ultrastaging of the tumor by means of detection of micrometastatic disease (immunohistochemistry, RP-PCR). **Method:** Detection of SLN may be complicated in patients with esophageal cancer before neoadjuvant therapy. However, the authors have developed the technique of minimally invasive detection and removal of SLN, which may be performed before neoadjuvant therapy. The detection substance (patent blue dye, radio-colloids) is applied via endoscopy to the tumor and later the SLN is identified via videolaparoscopy, removed and examined. According to this, it would be possible to modify the therapeutic protocol. **Results:** The method was performed in 15 patients in period 2002-2003. No complication was observed, the detection rate of SLN was 60%. **Conclusion:** The authors conclude the SLN technique to be promising also in esophageal cancer. After solving of some initial problems it may have an important role in the treatment of this cancer.

P-36

LAPAROSCOPICALLY ASSISTED ESOPHAGECTOMY AS THE METHOD OF CHOICE IN RESECTION OF THE ESOPHAGUS FOR CANCER

Neoral C, Aujeský R, Král V, Vrba R, Bohanes T, Klein J. Palacký University Teaching Hospital Olomouc, The Czech Republic.

Purpose: A blind esophagus resection without thoracotomy has become a common way of treatment of many esophageal diseases. Although this method is not accompanied with high complication frequency, it is more reasonable to dissect the esophagus under some visual control. In addition, the blind resection allows no exact lymphadenectomy in case of esophageal cancer. **Method:** A suitable technique to enable such a visually controlled dissection without opening of the chest is laparoscopically assisted esophagus dissection via the esophageal hiatus. The method development has been facilitated by broad experiences with procedures in the area of the hiatus for achalasia, epiphrenic diverticula etc. Thus it is possible to get along the esophagus up to the level of the tracheal carina. It facilitates even a direct treatment of possible bleeding, which is a quite frequent complication of the blind esophagus resection after neoadjuvant therapy. **Results:** The authors demonstrate their experiences in that method after the first five years of its using. No complication of the method was observed. The use of the laparoscopically assisted esophagectomy only minimally prolongs the procedure comparing to the blind resection. **Conclusion:** The authors suppose the method to be excellent in improvement of extirpation of the esophagus for cancer, especially after neoadjuvant therapy. It should be performed by a surgeon experienced enough in transhiatal procedures on the esophagus.

P-37

MANEJO LAPAROSCÓPICO DE LEIOMIOMAS ESOFÁGICOS

Esquivel PP, Kettenhofen EW, Berrones GD, Jiménez EJL. Aguascalientes, México.

El uso de cirugía laparoscópica para el tratamiento quirúrgico de las enfermedades benignas de esófago es actualmente bien establecido y altamente confirmado por diversos reportes a nivel mundial. Durante 12 años de cirugía endoscópica de esófago se han realizado más de 650 procedimientos, la mayor parte de ellos para el trata-

miento de la enfermedad por reflujo gastroesofágico. La presencia de tumores esofágicos benignos es poco frecuente, y la mayor parte de ellos pasa inadvertido en la mayor parte de los pacientes. El hallazgo transoperatorio de un leiomioma puede ser la mayor detección de estos tumores. La mayoría no requiere manejo ni extirpación. En el presente trabajo se reportan 3 casos de leiomiomas detectados durante el transoperatorio de cirugía esofágica y el tratamiento laparoscópico de un leiomioma que estenosaba la mayor parte de la luz esofágica causando disfagia importante. El cirujano que realiza cirugía esofágica tiene que estar familiarizado con la morfología de este tipo de tumoraciones, su evolución clínica y en tener experiencia para el manejo laparoscópico cuando las dimensiones de la tumoración lo indiquen.

P-38

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 resultados 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 de 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 de 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 pacientes 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.

P-39

TOTALLY LAPAROSCOPIC DISTAL GASTRECTOMY WITH ROUX-EN Y RECONSTRUCTION FOR AN EARLY GASTRIC CANCER: A CASE REPORT

Kasama K, Tagaya N, Suzuki N, Taketuka S, Horie K. Horie Hospital, Gunma, Japan.

Recently, the technique of laparoscopy-assisted distal gastrectomy (LADG) for an early gastric cancer has been established. LADG always needs a 5 cm to 7 cm skin incision on the upper abdomen for the Billroth –I type reconstruction. We report totally laparoscopic distal gastrectomy with Roux-en Y reconstruction (LDG-RY) for an early gastric cancer without any incisions on the upper abdomen. The patient was a 72-year-old male who had multiple early gastric cancer in the antrum of the stomach. A distal gastrectomy with D1 + No. 7 lymphonode dissection was carried out using EndoGIA liner stapler. The specimen was kept on the surface of the live during procedures. An antecolic Roux-en Y reconstruction was performed by the same fashion of laparoscopic Roux-en Y gastric bypass (LRYGB) for the patients with morbid obesity. Jejunojejunostomy and gastrojejunostomy were created by using a combination of EndoGIA and handswen technique. The specimen was removed from the umbilical port site using an EndoCatch II. The operation time took 190 min and the blood loss was 65 mL. There were no perioperative complications. The oral intake started on the second postoperative day, and the patient was discharged uneventfully. Our LDG-RY technique on the based of LRYGB was a feasible and safe procedure to perform the curative operation of early gastric cancers. This technique obtained less invasiveness and better cosmoses compared with LADG. We consider that LDG-RY becomes an alternative procedure for the treatment of early gastric cancers.

P-40

HAND ASSISTED LAPAROSCOPIC PALLIATIVE TOTAL GASTRECTOMY FOR AN ADVANCED GASTRIC CANCER: A CASE REPORT

Kasama K, Tagaya N, Suzuki N, Taketuka S, Horie K. Horie Hospital, Japan.

Laparoscopic procedures have been performed for early gastric cancer as a curative operation and advanced ones as a palliative treatment. However, totally laparoscopic procedures for gastric cancers provide with a time consuming compares with open procedures. Furthermore, palliative surgery requires less invasiveness and absolute safety for the patients. From the point of view, we report our successful hand-assisted laparoscopic total gastrectomy as a palliative procedures. The patient was a 82-years-old female who had a 8 cm gastric cancer in the fornix of the stomach. The patient and her family selected a palliative operation due to her age. We performed a hand-assisted laparoscopic surgery (HALS) as a palliative operation. A 7 cm upper midline incision was made for the insertion of the surgeon‘s hand. A total gastrectomy was carried out with a hand assisted technique using a LigaSure Atrus. On the reconstruction, jejunojejunostomy was created with EndoGIA, and esophagojejunostomy was directly created from the 7 cm incision as an antecolic Roux-en Y anastomosis. The operation time was 120 min, and the estimated blood loss was 50 mL. There was no perioperative complications and the patient was discharged uneventfully. We obtained a good outcome of a palliative surgery for an advanced gastric cancer. The introduction of HALS leads to make easier and safer laparoscopic surgery. Therefore, HALS total gastrectomy using LigaSure Atrus provide us with a time consuming and the patient with a minimal invasiveness. Our technique is a feasible and safe procedures to perform a palliative surgery for an advanced gastric cancer.

P-41

DUAL VISION SURGERY FOR LAPAROSCOPY DISTAL GASTRECTOMY

Totzuchi Aiakawa. Japan

Abstract not submitted

P-42

LAPAROSCOPY-ASSISTED TOTAL GASTRECTOMY FOR A CASE OF MALT LYMPHOMA AFTER FAILURE IN THE ERADICATION OF *HELICOBACTER PYLORI*: A CASE REPORT

Fujiwara M, Kodera Y, Miura S, Kasai Y, Hibi K, Ito K, Akiyama S, Nakao A. Surgery II, School of Medicine, Nagoya University, Nagoya, Japan.

Purpose: A case of laparoscopy-assisted total gastrectomy with regional lymph node dissection for MALT (mucosa-associated lymphoid tissue) lymphoma is reported. **A case:** The patient was a 45-year-old male with MALT lymphoma. Eradication of *Helicobacter pylori* as the initial therapy had failed to halt progression of the tumor. Considering certainty of the second therapy, he was transferred to surgical treatment. Total gastrectomy was performed by the laparoscopy-assisted approach. **Surgical procedure:** Five trocars. Total gastrectomy and regional lymph node dissection was done under laparoscopy. Then, a large trocar (33 mm) was inserted at left above the umbilicus. We used it form minimal access when the resected stomach was retrieved outside the peritoneal cavity and the reconstruction of the alimentary tract was performed by the Roux-Y reconstruction with jejunal pouch. **Result:** The post-operative course was satisfactory and the patient has been disease- free for 5 years after the opera-

tion. **Conclusion:** Laparoscopic operation could be an useful option in the second-line treatment for MALT lymphoma after failure in eradication of *Helicobacter pylori*.

P-43

COMBINED LAPAROSCOPIC TREATMENT OF PERFORATED PEPTIC ULCER
Veselinovic Z, Stojanovic Z, Drobnjak D, Veselinovic J.

Purpose: We employed original combined laparoscopic technique in 3 patients presented with perforated peptic ulcer (two duodenal and one gastric), using stitching and fibrin glue to deal with perforated organs. **Method:** All of the three patients were operated in first two hours, following admission and all of them were diagnosed in usual fashion: interview, clinical examination and plain X-ray film showing the gas collection under left diaphragmatic sheet. Clousure of perforated spot were done within the laparoscopic exploration of abdominal cavity, placing the omental patch over the opening and securing it with only one stitch. Further securing of the patch was done using the two-components fibrin glue, prepared immediately prior to use and via standard suction tube. Operations were completed with irrigation, drainage of subhepatic space and nasal-gastric tubing. **Results:** In all three cases post-operative courses were uneventfull: no complications, peristalsis on 3rd day after surgery and with oral intake on 4th day. **Conclusion:** Laparoscopic stitching and intra-corporeal knotting is, sometimes hard to perform easily and fast. Combination of only one stitch and fibrin-glue securing of the perforated spot, facilitates and speeds up this procedure; it is also a safe, based on our initial results.

P-44

GASTRIC TUMOR TREATED BY LAPAROSCOPIC SURGERY.
JI YEONG AN
Yong-Hae Baik, Won-Jae Jung, Kwang-Woong Lee, Jin-Seok Heo, Jae-Hyung Noh, Tae-Sung Sohn, Seong-Ho Choi, Sung Kim, Yong-Il Kim.
Department of Surgery, Samsung Medical Center Korea

Abstract not submitted

P-45

PROBLEMS AFTER LAPAROSCOPIC WEDGE RESECTION OF THE STOMACH
Miura S, Fujiwara M, Ohashi N, Kodera Y, Nakao A. Surgery II, School of Medicine, Nagoya University, Nagoya, Japan.

Background: Laparoscopic wedge resection of the stomach (LWR) was first begun as a treatment forearly gastric cancer. Recently it has been performed mainly for gastro-intestinal stromal cell tumor of the stomach. Although the procedure is considered to be simple with low morbidity rates some patients after LWR need long hospital stay period. **Patients and methods:** Details of surgical complication and lengths of postoperative hospital stay were analyzed in 41 patients who underwent LWR at Nagoya University between 1994 and 2003. This case included 27 patients with SMT, 13 with early gastric cancer and one with adenoma. We analyzed the cases with morbidity or long postoperative hospital stay. **Result:** There were 8 cases who had problems after LWR. Among the 8 cases, 7 needed hospital stay of longer than 2 weeks of which 5 suffered from retention of food with graduated emptying. **Discussion:** The most frequent postoperative problem after LWR is retention of food with graduated emptying. Various surgical measures to overcome this will be presented.

P-46

LAPAROSCOPY FUNDOPLICATION FOR PATIENTS WITH SYMPTOMS EVIDENCE OF GASTROESOPHAGEAL
Cruz MI, Ortiz AL.

The initial management of patients with symptoms of gastroesophageal reflux disease continues to be medical. Traditionally, failure to respond to conventional medical therapy would lead to the option of surgical intervention. The introduction of laparoscopic surgery over the past decade has perhaps- altered the threshold for surgical intervention, so that now fundoplication is sometimes considered to be an alternative to a life on medication. Certainly, in the young patient an economic argument can be made for this view. Despite controversy regarding the optimum technique for fundoplication, most centers claim to offer a success rate of approximately 90% and improved quality of life. The longevity of symptom control should ideally be sustained over the long term. Conventionally, fundoplication should not be performed without adequate preoperative investigation to establish both evidence of reflux and absence of other pathology. The minimum requirements we use are upper gastrointestinal endoscopy for documentation of esophagitis and esophageal manometry to identify ineffective peristalsis. A history of typical reflux symptoms, together with endoscopic evidence of erosive esophagitis, is sufficient to make a diagnosis of gastroesophageal reflux disease. In the absence of either endoscopic esophagitis, or typical symptoms, we investigate further with 24-h pH monitoring to document abnormal esophageal acid exposure. Ten patients with laparoscopic antireflux surgery. Sixteen patients were female and four male, with age 26 a 64. Postoperative follow-ups were for medium period of 2 years. Ten patients presented with typical reflux symptoms. All patients had tried H2- blocker and proton pump inhibitors. The response to medication was not good in patient. Ten patients were found to have a hiatal hernia at preoperative endoscopy. Ten patients have esophageal manometry. All patients underwent laparoscopic fundoplication. Six patients satisfaction 2 years postoperatively. Four failed to improve following surgery. These 4 all had atypical symptoms and who respond poorly respond. Four patients have alteration to identify ineffective peristalsis 60% patients have a good outcome from surgery from laparoscopic fundoplication 4% patients have a poor outcome when had alteration motility esophageal.

P-47

REVISION OF FAILED ENDOLUMINAL ANTIREFLUX PROCEDURES: THREE DIFFICULT CASES.
SEGER MIKEY
Chastanet RJ, Wilson E, Dalgle BS, Churchman RN, Leggett PL. University of Texas Health Sciences Center Houston, Texas. USA

Abstract not submitted

P-48

ESOFAGOPEXIA POSTERIOR Y HEMIFUNDUPLICATURA ANTERIOR: RESULTADOS PRELIMINARES
Olguín J, Peña I, Pardiñaz M, Cabrera J. Hospital Ángeles del Pedregal.

En este estudio descriptivo, prospectivo y experimental, comprende a 46 pacientes con diagnóstico de ERGE patológico, tomando como criterios de inclusión; ERGE por clínica, diagnóstico por endoscopia, diagnóstico por manometría, diagnóstico por Phmetría, tratamiento médico fallido y consentimiento informado. El análisis estadístico se realizó con hoja de cálculo Excel, programa Epi Info 2000 SPSS 12, con pruebas de Man-Whitney, p (cualitativa, no normales), mediana, mínimo y máximo. Los cuales son sometidos a esofagopexia posterior y hemifunduplicatura anterior por laparoscopia. **Resultados:** Son 46 pacientes: 34 femeninos y 12 masculinos, con edad promedio de 50.8 años (DE, 11.2), con diagnóstico endoscópico preoperatorio de G 2 = 39 pacientes, G 3 = 5 pacientes, G 4 = 2 pacientes (Savary-Miller), con manometría preoperatoria de 6.4 mm Hg (DE 1.4) y Phmetría preoperatoria de 35 Composite Score. Éxito de un 87-95% con una morbilidad de 10.8 %, meteorismo, dolor de hombro, disfagia leve. Falla 1 paciente (2.17%) con Phmetría de 57-> 22 composite score, manometría de 4 a 10 mmHg. **Conclusiones:** Es una alternativa quirúrgica útil en el tratamiento del ERGE.

P-49

LAPAROSCOPIC CARDIAL CALIBRATION AND POSTERIOR GASTROPEXY (HILL-LARRAIN) PROCEDURE IN PATIENTS WITH

REFLUX ESOPHAGITIS: ANATOMO-PHYSIOLOGICAL BASIS, TECHNIQUE AND RESULTS

Braghetto I, Korn O, Burdiles P, Debandi A, Valladares H. Department of Surgery University Hospital. University of Chile.

Laparoscopic antireflux surgery is the gold standard procedure for treatment of patients with reflux esophagitis. The current results of the laparoscopic approach, are absolutely comparable with the results obtained during the open surgery era. Nissen, Nissen-Rossetti, or Toupet techniques are the more frequently used. We have performed Cardial Calibration and Posterior Gastropexy or Nissen fundoplication by open approach with similar results. The purpose of this paper is to present the anatomo-physiological basis to employ cardial calibration and posterior gastropexy in patients with reflux esophagitis. This study includes 108 symptomatic patients, 12 of them with associated extraesophageal manifestations (posterior laryngitis). Endoscopic mild or moderate esophagitis was confirmed in 80 patients, Barrett's esophagus in 12 patients, and type I hiatal hernia in 16 patients. All patients were also submitted to manometry, 24 h intraesophageal Ph monitoring, barium swallow before and after surgery. The follow up ranged 12-36 months. **Results:** There were no conversion, major intraoperative, a postoperative complications or mortality. Postoperative dysphagia was present in 5% of cases. Symptomatic recurrence of reflux was observed in 10.2% and endoscopic presence of esophagitis in 12.3% of cases. Lower esophageal sphincter pressure increased significantly after surgery even in patients with endoscopic recurrence. Twenty four hours intraesophageal monitoring improved after surgery except in patients with objective recurrence of esophagitis. **Conclusion:** laparoscopic cardial calibration with posterior gastropexy, presents comparable results to those reported after Nissen or Toupet fundoplication and therefore could be another excellent therapeutic option in patients with reflux esophagitis.

P-50

VIRTUAL ENDOSCOPY AS A POST OP METHOD AFTER LAPAROSCOPIC FOUNDUPLICATION

Munoz-Infante J. Gutierrez R. Laparoscopic Surgery, Imagenology Dept. ISSEMYM Medical Center. Toluca, Mexico.

Description: Purpose. To know if virtual endoscopy is comparable as routine methods (esophagogram, endoscopy) to evaluate pre and post operative anatomy and function of laparoscopic founduplication. **Methods:** Five patients were evaluated before and after laparoscopic founduplication with virtual endoscopy, and the results were compared with the traditional methods used (esophagogram and traditional endoscopy). One day and one month after surgery. **Results:** All five patients were evaluated before laparoscopic founduplication with esophagogram, and traditional endoscopy, as well as manometry and pHmetry. After surgery they were evaluated with a virtual endoscopy as well as with esophagogram. All five patients were treated with a Nissen-Roseti technic, and they were found without problem one day after surgery, as well as in the virtual endoscopy. It was found easier to do virtual endoscopy the month after than esophagogram, although patients were eating normally at the time. and the results were comparable in both groups. **Conclusions:** Virtual endoscopy was found helpfull evaluatin patients after laroscopic founduplication, especially those one month after. We will follow up our patients with this method after a year and every two years. This softwere is not available to all, but we hope it will.

P-51

LAPAROSCOPIC REPAIR OF PARAESOPHAGEAL HERNIAS: A SHORT AND INTERMEDIATE-TERM OUTCOME ANALYSIS

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

Background: The surgical approach to paraesophageal hernias (PEH) has changed dramatically with the advent of laparoscopic techniques over the past decade. Despite this increasing trend, considerable variation in both perioperative outcomes and hernia recurrence rates have been reported in the literature. The objective of this study was to evaluate our short and intermediate outcomes with laparoscopic PEH repair. **Methods:** A retrospective review of patients undergoing laparoscopic repair of PEH in our institution between June 1998 to September 2002 was performed. Only patients with greater than 1 year follow-up were included in this analysis. **Results:** Elective laparoscopic repair of a PEH was performed in 58 consecutive patients with a mean age of 60 years. These included type II (13), type III (44), and type IV (1) PEH. The most common symptoms included epigastric pain (57%), dysphagia (40%), heartburn (31%), and vomiting (28%). Laparoscopic procedures included 56 Nissen fundoplications and 2 gastropexyas. All crural defects were closed primarily with or without pledgets, while 2 patients required the use of mesh. One laparoscopic procedure was converted to open due to intra-operative bleeding secondary to a consumptive coagulopathy, but no other major intraoperative emergencies were observed. Minor or major complications occurred in 15 patients (26%). Early post-operative complications included 2 postoperative leaks, 1 ileus, 3 pulmonary and 2 cardiac complications. Late post-operative complications included 1 umbilical hernia. Median length of hospital stay was 3.8 ± 2.5 days. Nineteen patients were completely asymptomatic following surgery, while the majority of the remaining subset of patients (83%) described marked symptom improvement with a mean follow-up of 24 months. UGI series performed in symptomatic patients identified 5 recurrent paraesophageal hernias (8.6%) and 5 small sliding hernias (8.6%). **Conclusions:** Laparoscopic repair of PEH is associated with improved long-term symptom relief, low morbidity, and acceptable recurrence rates when performed in an experienced centre.

P-52

THE LAPAROSCOPIC ANTIREFLUX NISSEN-ROSSETTI PROCEDURE FOR GASTROESOPHAGEAL REFLUX DISEASE. FIVE YEARS RESULTS

Drahonovský V, Kme L, Berger T, Winkler L. Mestská Nemocnice Neratovice, Privátní Chirurgicke Oddelení.

Background: We evaluated quality of life patients with GERD and hiatal hernias before and five years after laparoscopic antireflux procedure Nissen-Rossetti. We used GIQLI test by Eypasch. **Method:** 140 patients fullfiled GIQLI test before their operation in 1997. We sent them identical tests after five years. There returned 112 fullfiled tests, 16 patients changed address and 12 did not replay. We compared pre and postoperative test. **Results:** Feeling of full stomach is not significantly better feeling inflate is not significant worse belching and vomiting are significant better necessity of slowly eat and occurrence of dysphagia are the same occurrence of chest pain, horseness and cough are without changes. 99% patients have not regurgitation 96% do not know pyrosis. As antireflux medication use one patient omeprazol every day, two patients two times per week and one patient Maalox in case of need. Three patients use prokinetics against dysphagia and seven patients use stomach drugs because of different indications: feeling full stomach, by large other medications, as postoperative medication after resection of pancreas. GILQ Index is in health population 84% GIQL Index is by patients with GERD 70% GIQL Index five years after operation is 83.6% Exitus O, conversions three times, reoperations two times for paraesophageal hernia, two times for hernia in cicatrize. **Conclusions:** Laparoscopic antireflux Nissen-Rossetti procedure has a lasting good effect to the reflux symptoms and it has low number side effects. Index quality of life five years after operation is close to Index healthy population.

P-53

EARLY OUTCOME AFTER FUNDOPLICATION: COMPARATIVE STUDY BETWEEN LAPAROSCOPIC AND CONVENTIONAL PROCEDURES IN A LARGE PRIVATE TEACHING CENTER. A DECADE OF CHANGE

Saavedra EA, Cervantes BM, Betancourt JR. Department of Surgery, Hospital Angeles del Pedregal. México, D.F.

The number of procedures for the treatment of gastroesophageal reflux disease has increased at world level, with reports showing a tenfold increase in some areas in comparison with the decade

of 1980. At the Hospital Angeles of the Pedregal the antireflux procedures represent 15% of all the general surgical interventions and 31% of the laparoscopic procedures; it should be noted that 43% of the general surgical operations are performed via laparoscopy. **Objective:** To evaluate the perioperative results of the surgical treatment of the gastroesophageal reflux disease in a third level private teaching center during two different periods, through retrospective analysis of the clinical files. **Material and methods:** The files of 235 patients operated in the period of January 1st 1990 to May 31 1994 (group A), and of 1067 operated from January 1st 1999 to April 30th 2002 (group B) were included. Age, sex, approach (open or laparoscopic), surgical techniques, concomitant operations, morbidity, mortality, conversion rate and days of hospital stay were analyzed. **Results:** There was no significant difference in age or sex distribution between both groups: average 45 years among males (57% of patients) and 47 years for females (43% of the studied population) in group A and 51 years in average for males (55% of the population) and 42 years for females (45% of patients) for groups B. Group A comprised 180 open (76%) and 55 laparoscopic fundoplications (24%) while group B included 1028 laparoscopic (96%) and 39 (4%) conventional fundoplications. In this last group the surgical techniques employed were: Nissen 26 (67%), Guarner 10 (25%) and other 3 (8%) for the conventional approach and Nissen 792 (77%), Toupet 106 (10%), Guarner 41 (4%) and other 89 (9%) for the laparoscopic approach, without no differences in the morbidity among the various procedures. The practice of other procedures in the same surgical act did not affect the morbidity or the mortality. The complications for the conventional approach were similar in both groups (1.6 and 2.6%) while in the laparoscopic approach they dropped from 14% in group A to 1.8% in group B. The rate of convertion from laparoscopic to open was 16% n=9 in group A and 1.2% (n=12) in group B global hospital stay was 5.6 days (1 to 93 days) for patients operated bye the conventional approach and 2.7 days (1 to 92 days) by laparoscopy. There was no mortality in this study. **Conclusions:** Our study confirms an increase in the incidence of the surgical treatment of gastroesophageal reflux disease. Laparoscopic funduplication is a safe procedure in our hospital, with morbidity and mortality similar to the reported in the literature. Hospital stay is shorter using the laparoscopic approach; the surgical technique used has no influence in early morbidity or mortality and conversion on time avoids greater complications.

P-54

CIRUGÍA ANTIRREFLUJO. REVISIÓN DE 3 AÑOS EN EL HOSPITAL REGIONAL 1º DE OCTUBRE DEL ISSSTE

Tort MA, Torices EE, Domínguez CL, Méndez VG, Velázquez GR, Olvera HH, Núñez GE, Mondragón SA.

Introducción: La cirugía antirreflujo laparoscópica, actualmente es el estándar de oro para el tratamiento del reflujo gastroesofágico grave y refractario a tratamiento médico, ya que ofrece remisión de la sintomatología, menor dolor postoperatorio y rápida recuperación, con un bajo índice de complicación y conversiones en un centro de concentración. **Material y métodos:** Se incluyeron todos los pacientes operados de enero de 2000 a julio de 2003 de ambos sexos, de todos los grupos de edad, con diagnóstico de hernia hiatal. **Resultados:** Se operaron 200 pacientes, 119 (59.5%) sexo femenino, 81 (40.5%) sexo masculino, con una mayor incidencia en la 5ª década de la vida. En 155 pacientes se realizó funduplicatura Nissen Rosseti (77.5%), además de ésta 18 con colecistectomía (9%), 3 con vagotomía truncular y piloroplastia (1.5%), 3 con vagotomía supraselectiva (1.5%), 12 Nissen (6%) y 9 Toupet (4.5%). Se presentaron 15 complicaciones (7.5%), 1 perforación esofágica como complicación mayor, el resto se consideró menor como neumotórax, lesión hepática leve, etc, 5 pacientes con recidiva (2.5%), con un índice de conversión de 1.5%. **Conclusiones:** Actualmente la cirugía laparoscópica permite tener una visualización adecuada del hiato, con lo que se obtiene una disección más fina con manipulación cuidadosa de los órganos vecinos. En los últimos años se ha realizado en nuestro centro hospitalario con mayor frecuencia la cirugía de Nissen Rosseti en el tratamiento del reflujo con muy buenos resultados a largo plazo y con baja incidencia de complicaciones, presentando 0% de mortalidad.

P-55

FLOPPY NISSEN LAPAROSCOPIC IN PATIENT WITH ESOPHAGEAL INEFFECTIVE MOTILITY, IT IS POSSIBLE OR IS CONTRAINDICATED

Lozada LJD, Tamara LJA, Contreras AA, Abundez PA, Carreto AF, Mulato BE. Santa Monica Hospital, Cuernavaca, Morelos, Mexico.

Purpose: The goal of this video is to present the experience of our group in patients with ineffective esophageal motility with laparoscopic floppy Nissen fundoplication showed preoperatively with manometric studies. **Material and methods:** We present 18 patients, 10 men, eight women, with rank of age between 24 and 82 years old with medium average of 62, in a period of study of 4 years, 100% of the patients present heartburn, epygastralgia and acids regurgitations, the 100% of the patients presented extradigestive manifestations of gastroesophageal reflux disease, 4 patients presented clinical findings of bronchial asthma, 6 diabetic patient, all the patients were operated with the laparoscopic floppy Nissen fundoplication, we start the surgical technique, with the dissection and cuts of the frenesophageal edges, hiss angle, total liberation of gastric fundus retroperitoneum adhesions, dissection of diafragm crura, mobilization and liberation of all the esophageal circumference, identification and isolation of the posterior vagus nerve, skeletization, clippage and cut of short gastric vessels, until adequate identifying of the vein and esplenic artery, once one is released the gastric bottom totally, we close the crura in all the patients with three stich of ethibond 00, balance sheet a 42 Fr boogie of Savary-Miller pluss 18 Fr nasogastric tube, to make a wrap of 2.5 cm in intraabdominal length. **Results:** The outcome of the patients has been satisfactory, 100% were discharge from the hospital to 48 h of the postoperating one, all of them begin clear liquid diet to the second day of the postoperating one during three days and later soft diet during two weeks, we give them medical treatment with double prokinetic drugs scheme, cisaprida type and cinitaprida and-or I cisaprida with dompperidona, in 12 patients (66.6%) disphagia totally.

P-56

REPARACIÓN DE HERNIA HIATAL PARAESOFÁGICA POR LAPAROSCOPIA. PRESENTACIÓN DE UN CASO

Pérez PY, Guerrero JF, Palacios R. Hospital Central Norte de PEMEX. México D.F.

Femenina de 79 años con antecedentes de hipertensión arterial, EPOC, evc hemorrágico, aneurisma de aorta torácico, histerectomía y colecistectomía. Inicia su padecimiento de 6 meses de evolución caracterizado por intolerancia a la ingesta de líquidos y sólidos, con náuseas y vómitos, en proyectil, postprandial, hiporexia y pérdida de peso por sintomatología vaga de abdomen superior. Se realiza serie esófago-gastroduodenal en último internamiento, encontrando hernia hiatal paraesofágica por lo que se programa para cirugía. **Descripción:** Se realiza reducción de contenido de hernia, encontrando torción de estómago y presencia de epiplón en saco herniario, se reduce mano a mano y en forma progresiva, apertura de epiplón menor, identificación de lóbulo cuadrado hepático, así como pilar derecho, disección de hiato amplio aproximadamente 10 cm, liberación en forma circunferencial de saco, identificación de pilar izquierdo así como la localización del esófago, se realiza ventana retroesofágica con una tracción adecuada. Se completa funduplicatura completa 360º floja, cierre de hiato, con fijación de la plastia en tres sitios. Evolución satisfactoria en su postoperatorio y actualmente asintomática. **Comentario:** La hernia hiatal paraesofágica con presencia de vólvulo gástrico son indicaciones para realizar corrección quirúrgica por la probabilidad alta de complicaciones, así como la no tolerancia a la vía oral. Los principios quirúrgicos son los mismos para cirugía antirreflujo, con la reducción del contenido herniario, reparación del defecto y la fijación adecuada de la funduplicatura con el fin de evitar recurrencias. En este caso no se resecó el

saco herniario completo, pero sí se liberó en forma circunferencial, por las características de la paciente, (EPOC y cardiopatía), tratando de disminuir el tiempo quirúrgico, siendo ésta una opción en estos casos.

P-57

CLINICAL MANAGEMENT WITH LAPAROSCOPY IN PREMATURE OVARIAN FAILURE

Hirota Y, Tsukada K, Nishio E, Udagawa Y. Department of Obstetrics and Gynecology, Fujita Health University, School of Medicine, Aichi, Japan.

Purpose: The aim of this study was to analyze of laparoscopic ovarian biopsy and the laparoscopically observed morphological features of the ovary in premature ovarian failure (POF), and to construct an appropriate guideline for clinical management utilizing laparoscopy. **Methods:** Nineteen POF women who treated in our institute from 1991 to 2000 were studied retrospectively. The ovaries from 12 patients who underwent laparoscopy were classified, according to morphological features, as sclerotic, atrophic or hypoplastic. The detection rate for a primordial follicle was assessed for each ovarian type, and the correlation between morphological features and patient clinical outcome was investigated. **Results:** Induction of ovulation was successful in eight of 19 patients (42.1%). Among the 12 patients who underwent laparoscopy, ovulation induction was successful in four, but not in the remaining eight. The rate of detection of a primordial follicle was 50.0% for the four women with successful ovulation induction and 14.2% in the eight other women. With regard to ovarian type, primordial follicle were detected only in sclerotic ovaries. It was shown that cyclic therapy with estrogen and progesterone (CTEP) had appreciably favorable effects, and then the combined therapy with CTEP-primed GnRH agonist and HMG-HCG was the reasonable therapeutic method. **Conclusions:** There was a clear relation between the rate of detection of primordial follicles and the morphological features of the ovaries. Therefore, laparoscopy should be done an early stage to determine the type of ovary. Furthermore, in establishing whether or not there is a primordial follicle in the ovary, laparoscopy seems to have an important role in the planning of treatment.

P-58

LAPAROSCOPY AND PREGNANCY

Fernández J, Dorantes MA, Baqueiro A, Gómez JM, Martínez J, Aguirre J, Pedraza L. Department of Gastrointestinal Surgery. Department of Gynecology and Obstetrics. Hospital Español de Mexico.

Purpose: At the beginning of laparoscopic surgery era, its use during pregnancy was considered as a contraindication. Currently, several authors have noted about the security of laparoscopy in the treatment of surgical pathology during pregnancy and about its benefits on the maternal-fetal binomial. The aim of this report is to communicate our experience with laparoscopic surgery on pregnant patients during 7 years. **Methods:** This is a retrospective and clinical research study. From March 1997 to May 2003 we revised the cases of 10 pregnant patients. We included only pregnant patients with diagnosis of surgical abdominal pathology during the first and the second trimester of pregnancy. **Results:** We performed laparoscopic surgery in 10 pregnant patients in conjunction with a gynecologist, ages between 22 to 34 years old. All patients were approached with general anesthesia and in all patients the neumoperitoneum was created by open technique, 4 patients (44%) had acute cholecystitis, 4 patients (44%) had acute appendicitis, 1 patient (11%) had bowel obstruction and 1 patient had (11%) torsion of Morgagni's cyst. In 7 patients (77%) laparoscopic procedure was done in the first trimester of pregnancy: (2 cholecystectomies, 3 appendectomies, 1 lysis of abdominal adhesions and 1 resection of Morgagni's cyst. During the second trimester of pregnancy laparoscopic approach was carried out in 3 patients (33%) due to surgical pathology: 2 cholecystectomies and 1 appendectomy. Conversion rate was 0 % 3 patients (33%) presented with postoperative uterine activity that was inhibited with tocolytic agents. Maternal or fetal mortality rate was 0 %. At birth, 7 newborns presented with lower body weight than expected for their gestational age. **Conclusions:** We think that laparoscopy is a safe method for the treatment of abdominal surgical pathology during the first and the second trimester of pregnancy. Because of the uterine size, laparoscopy is contraindicated during the third trimester of pregnancy.

P-59

LAPAROSCOPIC APPROACH FOR GIANT OVARIAN CYSTADENOMA

Ibarrola CJ, Resendiz MA, Núñez FJ, Leon MG, González JJ, Pérez JA, García LE. Department of Surgery, Hospital "Ángeles del Pedregal", Mexico, City, Mexico.

Background: Fortunately most ovarian tumors are cystic, benign and generally asymptomatic, although abdominopelvic pain and adnexal masses are frequently encountered in patients who seek medical attention in the emergency department where it remains a diagnostic challenge. The Gynecologic etiologies include cul-de-sac abscess, ectopic pregnancy, endometriosis, hemorrhagic corpus luteum cysts, hydrosalpinx, interstitial pregnancy, ovarian neoplasms, paraovarian cysts, pyosalpinx, simple ovarian cyst, tubal neoplasm tuberculosis, endosalpingitis, tubo-ovarian abscess, etc. Adnexal cystic masses can arise from the ovaries, fallopian tubes, broad ligaments, or the suspensory ligaments of the ovary. Functional ovarian cysts, follicular cysts and corpos luteum cysts form the majority of the masses in many of the series that include non neoplastic adnexal lesions. By definition ovary cysts represent at least 2.5 cm increase in the normal ovary size with cystic appearance, they usually have thin transparent walls, with fluid inside, encircled by simple ciliated epithelium. A B-hCG is specially necessary to rule out ectopic pregnancy or spontaneous abortion in patients with acute abdominal symptoms because both conditions are more common with the presence of ovarian cysts. Ultrasound is the only other test required to diagnose ovarian cysts. Abdominal CT is only used when patients have abdominal pain from an uncertain etiology, to rule out abdominal abscesses or tumor or when ultrasound is unavailable. Monthly follow up with ultrasound is required for all patients with ovarian cysts, including those with asymptomatic cysts to ensure that the cysts is decreasing in size. Oral contraceptive pills are frequently prescribed when either type of cyst is identified by ultrasound to prevent the formation of further cysts. Surgical intervention with cystectomy is required in the cyst enlarges, if symptoms increase or persist or if the cyst does not resolve. The preferred method of treatment is cystectomy because it will preserve the normal ovarian function, and protect future fertility by avoiding oophorectomy. **Purpose:** To present an additional case of a giant ovarian cystadenoma successfully treated with laparoscopy. **Method:** We present a case of a 20-year-old female with progressive abdominal distention associated with mild abdominal discomfort, laboratories including tumor markers were normal and ultrasonography revealed an abdominal mass with cystic appearance located in the right hemiabdomen from the right costal margin to the right iliac crest. **Results:** Paracentesis was performed during diagnostic laparoscopy recovering more than 8 L of clear fluid. Only the cyst was completely removed laparoscopically and diagnosis of ovarian cystadenoma was made. The patient made a quick and uneventful recovery. **Conclusions:** In all cases of abdominal distention ultrasonography must be performed and a tumor marker profile consisting of AFP, LDH, testosterone, estradiol and CA-125 must be established in order to differentiate between benign and malignant processes, when the later is suspected, additional CT scanning must be performed. Conventional treatment I this large cysts is laparotomy, although we propose that complete laparoscopic drainage and extirpation should be the treatment of choice, regardless of size.

P-60

HISTERECTOMÍA VAGINAL ASISTIDA POR LAPAROSCOPIA. REPORTE DE LOS PRIMEROS 150 CASOS

Razo VJL, Armesto SA. Hospital Ángeles del Pedregal.

Antecedentes: La histerectomía es un procedimiento frecuente en todo el mundo, a los 40 años 11% de las mujeres han sido operadas de histerectomía y a los 55 años el 20% de las mujeres en países industrializados ya estarán operadas. Desde que Reich en 1989 publicó la primera histerectomía vaginal asistida por laparoscopia, han aparecido un gran número de publicaciones. **Diseño:** Estudio retrospectivo, transversal, observacional. **Objetivo:** Mostrar nuestra experiencia, las indicaciones, hallazgos, resultados quirúrgicos y complicaciones de la histerectomía vaginal asistida por laparoscopia. **Pacientes y métodos:** Se efectuó la revisión completa de los expedientes de las primeras 150 pacientes operadas por nosotros en el Hospital Ángeles del Pedregal de la ciudad de México, 7 casos se excluyeron por falta de seguimiento. **Resultados:** Se incluyeron 157 pacientes con patología benigna de útero y con CaCu Ca *in situ*. El rango de edad fue desde los 31 hasta 64 años, con mediana de 44 años. Entre sus antecedentes: 5.7% recibió alguna cirugía pélvica previamente: 20% cesáreas, 5.7% cirugía de algún anexo y 5.7% apendicectomía. Los diagnósticos fueron miomas 82%, NIC 8.5%, crecimiento uterino 5.7% y adenomiosis 2.8%. Se efectuaron 120 HVAL, 22 se acompañaron de colpoperineoplastia y plastia de Kelly y 17 con salpingooforectomía unilateral por patología anexial benigna. El estudio histopatológico reveló que el 67% de las piezas tenían miomas, adenomiosis y NIC en 8.5%, las 2 masas anexiales correspondieron a cistadenomas de ovario. Hubo 9 complicaciones, 4 en el tiempo abdominal que correspondieron a lesión vesical diagnosticados con azul de metileno vía uretral y resueltos por vía laparoscópica. Un desgarro perineal grado IV al extraer un útero de 800 g y una dehiscencia parcial de perineorrafia al quinto día del posoperatorio. Una paciente se reintervino por sangrado que ameritó hemostasia de un vaso vaginal por vía laparoscópica. No se requirieron conversiones. **Conclusiones:** La histerectomía vaginal asistida por laparoscopia es un procedimiento seguro en manos entrenadas. Con un porcentaje de complicaciones bajo y con una reducción importante de la estancia hospitalaria y un pronto regreso a la vida productiva.

P-61

UTERINE ARTERY EMBOLIZATION AS A TREATMENT OPTION FOR UTERINE FIBROIDS

But I, Faganelj-But M, Matela J.

Objectives: The objective of our study was to evaluate the success rate as well as the complications of uterine artery embolization (UAE) in women with solitary symptomatic fibroids. **Methods:** 28 women underwent the UAE procedure because of symptomatic uterine fibroids causing menometrorrhagia (n=25, 89.3%), dysmenorrhea (n=18, 72.0%) and bulking symptoms (n=10, 35.7%). Before UAE and one, three, and six months after the procedure, sonography of the uterus was performed (ATL, HDI 3000 Ultrasound System). The volume of fibroids was determined by the formula for ellipsoid: (4/3) π *x y z*, where *x, y*, and *z* are the dimensions of the fibroid determined on two orthogonal ultrasound views. The outcome of UAE was assessed on the basis of an interview with each woman as well as on the basis of repeated ultrasound examinations. **Results:** The average age of the 28 women was 41.4 years. The average diameter of the fibroids was 63.2 mm (32.3-94.3 mm), their volume 152.9 cm^3 (17.7-440.0 cm^3). UAE was performed successfully in 26 women, in two cases the radiologist rejected the UAE for technical reasons (aberrant course of the uterine artery, vascular tortuosity). All patients were discharged from hospital on the day after the procedure. One month after UAE, the fibroid volume decreased by 27.8%, after three months by 52. 1 % and after six months by 67.5 %. Two fibroids were expelled spontaneously. In one case, revascularization of the globular uterine structure and a recurrence of the complaints occurred six months later. We decided on hysterectomy and the histologic findings revealed an adenomyosis. **Conclusions:** UAE appears to be effective in the management of symptomatic fibroids, resulting in marked reduction in fibroid size. The procedure was well tolerated by the majority of women, this acceptance would have been much higher in case of better pain control after the procedure. We believe that UAE is a safe procedure showing great promise not only as an alternative to myomectomy or hysterectomy but also as primary treatment for symptomatic fibroids.

P-62

IPOM LAPAROSCOPIC MANAGEMENT FOR VENTRAL HERNIAS

Salinas G, Velasquez C, Saavedra T, Tamayo JC, Rodríguez W, Valdivia C, Ramírez E, Orellana A. Endoscopia Quirúrgica-Lima-Perú.

Purpose: To show the results of our experience with the IPOM surgical technique using polypropilene mesh in the treatment of ventral hernias. **Method:** Since October 1994 until October 2003 we carried out 47 ventral hernia repairs (6 males and 41 females) by IPOM laparoscopic technique using polypropilene mesh in three hospitals in Lima-Perú done by the same surgical team in a standardized routine placing the mesh from the inside of the abdomen with nylon stiches and titanium spirals; the design is a case-study and we included: sex, hospital stay, ventral hernia size and place in the abdomen where the hernia developed, and complications. **Results:** We found 47 patients with ages ranging between 36 and 85 years old, the most frequent ventral hernia were in the midline; the postoperative hospital stay range between 1 to 6 days, 83% of the patients had 72 hours of postoperative stay and 68% had 48 hours; 76% had an hernia diameter of 6 cm of more. We have no mortality and 34% had one complication at least. The recurrence rate was 6.3% with a follow up ranging between one month and 8 years. We do not consider seromas as a complication (normal postoperative evolution of the hernia sac). We had two conversions to an open procedure. Major postoperative complications were one small bowel perforation and one vascular injury (over the epigastric vessels) (4.2%). **Conclusions:** The IPOM procedure is safe, with no mortality, low morbidity and low recurrence rate despite the size and place of the ventral hernia.

P-63

IS IT POSSIBLE FOR US TO REDUCE PERITONEAL ADHESIONS IN THE SURGICAL TREATMENT OF VENTRAL HERNIA USING INTRAPERITONEAL (LAPAROSCOPIC) PROSTHESIS?

Bustos M, Martin JA, Cadet H, Guerra JA, Tutosaus JD, Morales-Conde S, Morales MS.

Aims: Frequently we must leave a biomaterial into abdominal cavity for repairing defects of abdominal wall. It's necessary to know how this biomaterial will act in that place and it's relation with peritoneal adhesions. This ability of mesothelialization we think is a predictable factor related with the genesis and appearance of peritoneal adhesions. **Method:** Twenty pigs were included in this study and divided in two groups using helical staplers fasteners, performed four implants (squares 4 x 4 cm): two of them (in an upper location) were in PTFE (Dualmesh Plus Corduroy), and two lowers polipropylene mesh. Group A: The implants located in the right side of animals were painted with fibrin glue. Group B: Using the same technique right implants were painted with hyaluronidase gel. After a five week period, the pigs were re-operated, determinating the intraperitoneal adhesions ratio and grades, mesothelialization percentile of the visceral surface of prosthetic materials, and evaluating the retraction of prosthesis and later sacrificed. Samples having abdominal wall and implants were taken for histological study. **Results:** Intraperitoneal adhesions decreased both in implants painted with fibrin glue and hyaluronidase gel in a comparative study with implants located in left side of animals (not painted). In a comparative study intergroups group B have a better results. By the other hand a material said a typical producer of intraperitoneal adhesions is almost without any adhesion in many animals, whose had an high degree percentile of meshothelialization. Retraction of PTFE implants arose a 70% in area, mean while in polyproylene mesh 8-10% only. **Conclusions:** Fibrin glue and hyaluronidase gel both reduce postoperative peritoneal adhesion ratio and grades, having a high degree of mesothelialized areas. By the other hand hyaluronidase gel has a great advantage: is a very cheap product.

P-64

IT'S NECESSARY TO KNOW THE PROSTHETIC RETRACTION ABILITY IN LAPAROSCOPIC SURGICAL TREATMENT FOR VENTRAL HERNIA

Bustos M, Martín JA, Cadet H, Guerra JA, Tutosaus JD, Morales CS, Morales MS.

Aims: When we need to place a biomaterial in direct contact with visceral peritoneum one of the factors to have into our mind is necessary to know its behaviour in that location, and the peritoneal ability to cover it. This ability of retraction we think is a predictable factor related with a successful surgical procedure. **Methods:** Twenty pigs were included in this study and divided in two groups. Using helical staplers fasteners, performed four implants (squares 4 x 4 cm): two of them (in an upper location) were in PTFE (Dualmesh Plus Corduroy), and two lowers polipropylene mesh. Group A: The implants located in the right side of animals were painted with fibrin glue. Group B. Using the same technique right implants were painted with hyaluronidase gel. After a five week period, the pigs were re-operated, determinating the intra-peritoneal adhesions ratio and grades, mesothelialization percentile of the visceral surface of prosthetic materials, and evaluating the retraction of prosthesis and later sacrificed samples having abdominal wall and implants were taken for histological study. **Results:** Five weeks later all prosthesis had been retracted, retraction were bigger in PTFE specimens. PTFE retraction arose sometime 80% in surface, by the other hand polypropylene retraction were 10-20% only. We have not seen any relation with the presence or absence of peritoneal adhesions inhibitors. **Conclusions:** Prosthesis used in laparoscopic treatment for ventral hernia must be bigger than abdominal wall defect. We think they must have a diameter 6-7 cm bigger than herniary ring diameter, it'll be warranty of a successful surgical procedure.

P-65

EFFECTS OF FIBRIN GLUE ON THE PREVENTION OF POST-OPERATIVE PERITONEAL ADHESIONS IN THE SURGICAL TREATMENT OF VENTRAL HERNIA USING INTRAPERITONEAL PROSTHESIS

Bustos M, Martin JA, Cadet H, Guerra JA, Tutosaus JD, Morales-Conde, Morales MS.

Aim: The aim of this study was to investigate the effects of fibrin glue on the prevention of postoperative peritoneal prosthesis. **Method:** Ten pigs were included in this study. The animals were anesthetized using Na-Penthotal for induction and isofluorane for standing; later the abdomen was opened and, using helical fasteners, performed four implants (squares 4 x 4 cm): two of them (in an upper location) were in PTFE (Dualmesh Plus Corduroy), and two lowers polypropylene mesh. The implants located in the right side of animals were painted with fibrin glue. After a five week period, the pigs were re-operated, determinating the intraperitoneal adhesions ratio and grades, evaluating the retraction of prosthesis and later sacrificed. Samples having abdominal wall and implants were taken for histological study. **Results:** Intraperitoneal adhesions decreased in implants painted with fibrin glue in a comparative study with implants located in left side of animals (not painted). By the other hand a material said a typical producer of intraperitoneal adhesions as polypropylene mesh is almost without any adhesions in many animals. **Conclusions:** Fibrin glue reduces postoperative peritoneal adhesion ratio and grades including in the presence of polypropylene mesh.

P-66

MESOTHELIALIZATION OF PROSTHETIC MATERIAL IN LAPAROSCOPIC VENTRAL HERNIA REPAIR: AN EXPERIMENTAL STUDY

Bustos M, Martín JA, Cadet H, Guerra JA, Tutosaus JD, Morales-Conde S, Morales MS.

Aims: When we need to place a biomaterial in direct contact with visceral peritoneum one of the factors to have into our mind is necessarily to know its behaviour in that location and the peritoneal ability to cover it. This ability of mesothelialization we think is a predictable factor related with the genesis and appearance of peritoneal adhesions. **Method:** Twenty pigs were included in this study and divided in two groups. Using helical staplers fasteners, performed four implants (squares 4 x 4 cm); two of them (in an upper location) were in PTFE (Dualmesh Plus Corduroy), and two lowers polypropylene mesh. Group A: The implants located in the right side of animals were painted with fibrin glue. Group B: Using the same technique right implants were painted with hyaluronidase gel. After a five week period, the pigs were re-operated, determinating the intraperitoneal adhesions ratio and grades, mesothelialization percentile of the visceral surface of prosthetic materials, and evaluating the retraction of prosthesis and later sacrificed. Samples having abdominal wall and implants were taken for histological study. **Results:** Intraperitoneal adhesions decreased both in implants painted with fibrin glue and hyaluronidase gel in a comparative study with implants located in left side of animals (not painted). In a comparative study intergroups group B have a better results. By the other hand a material said a typical producer of intraperitoneal adhesions is almost without any adhesion in many animals, whose had an high degree percentile of mesothelialization. Retraction of PRFE implants arose a 70% in area, meanwhile in polypropylene mesh 8-10% only. **Conclusions:** Fibrin glue and hyaluronidase gel both reduce postoperative peritoneal adhesion ratio and grades, having a high degree of mesothelialized areas. Hylauronidase gel has a great advantage: is a very cheap product.

P-67

PREVENTION OF POST-OPERATIVE PERITONEAL ADHESIONS IN THE SURGICAL TREATMENT OF VENTRAL HERNIA USING INTRAPERITONEAL PROSTHESIS

Bustos M, Martín JA, Cadet H, Guerra JA, Tutosaus JD, Morales-Conde S, Morales-Méndez S.

Aim: The aim of this study was to investigate the effect of fibrin glue and hyaluronidase gel on the prevention of postoperative peritoneal prosthesis. **Method:** Twenty pigs were included in this study and divided in two groups. The animals were anesthetized using Na-Penthotal for induction and isofluorane for standing; later the abdomen was opened and, using helical staplers fasteners, performed four implants (squares 4 x 4 cm): two of them (in an upper location) were in PTFE (Dualmesh Plus Corduroy), and two lowers polypropylene mesh. Group A: The implants located in the right side of animals were painted with fibrin, glue, Group B: Using the same technique right implants were painted with hyaluronidase gel. After a five week period, the pigs were re-operated, determinating the intraperitoneal adhesions ratio and grades, evaluating the retraction of prosthesis and later sacrificed. Samples having abdominal wall and implants were taken for histological study. **Results:** Intraperitoneal adhesions decreased both in implants painted with fibrin glue and hyaluronidase gel in a comparative study with implants located in left side of animals (not painted). In a comparative study intergroups, group B have a better results. By the other hand a material said a typical producer of intraperitoneal adhesions in almost without any adhesion in many animals. **Conclusions:** Fibrin glue and hyaluronidase gel both reduce postoperative peritoneal adhesion ratio and grades. Hyaluronidase gel has a great advantage: is not an expensive product.

P-68

LAPAROSCOPIC INGUINAL HERNIA REPAIR BY EXTRAPERITONEAL APPROACH-USEFULNESS OF PERITONEAL EDGE ORIENTED METHOD

Ikeda M.

The argument about merits and demerits of the laparoscopic inguinal hernia repair (IH) compared with the conventional method is still going on. Why is there so much argument despite IH having various advantages such as rapid recovery in addition to the low recurrence rate? This is probably because IH currently in use is by TAPP (transabdominal preperitoneal approach) not without potential complications such as organ damages and ileus and also because it is not a minor surgery unlike the conventional method. Now is the time to shift to TEPP (totally extraperitoneal preperitoneal approach) and to

establish IH which is less invasive and of a minor surgery. TEPP has been deemeid as a very difficult surgical technique because of the difficulty in securing the extraperitoneal space as a surgical space. At present, this problem has been resolved by the balloon dissection method. Nevertheless, TEPP has not become popular. As the reason for it, mention can be made of the difficulty in making differential diagnosis of the hernia during operation and the complicated procedure required in treating the hernia sac. Moreover, a detailed description on how to proceed with these surgical procedures is not available now. The author has developed a new operative technique for TEPP (peritoneal edge oriented method) capable of making a correct diagnosis and treating the hernia sac during operation by following the peritoneal edge continuously and worked it out into a manual, thereby making it possible to perform a sure and stable TEPP. Based on the experience with 960 cases on which the author performed operation, the actual surgical technique is presented with explanation.

P-69

EFFECTS OF HYALURONIDASE GEL ON THE PREVENTION OF POST-OPERATIVE PERITONEAL ADHESIONS IN THE SURGICAL (LAPAROSCOPIC) TREATMENT OF VENTRAL HERNIA USING INTRAPERITONEAL PROSTHESIS

Bustos M, Martín JA, Cadet H, Guerra JA, Tutosaus JD, Morales-Conde S, Morales-Méndez S.

Aim: The aim of this study was to investigate the effect of hyaluronidase gel on the prevention of postoperative peritoneal prosthesis. **Methods:** Ten pigs were included in this study, the animals were anesthetized using Na-Penthotal for induction and isofluorane for standing; later the abdomen was opened and using helical fasteners, performed four implants (squares 4 x 4 cm): two of them (in an upper location) were in PTFE (Dualmesh Plus Corduroy), and two lowers polypropylene mesh. The implants located in the right side of animals were painted with an hyaluronidase gel. After a five week period, the pigs were re-operated, determinating the intraperitoneal adhesions ratio and grades, evaluating the retraction of prosthesis and later sacrificed. Samples having abdominal wall and implants were taken for histological study. **Results:** Intraperitoneal adhesions decreased in implants painted with a hyaluronidase gel in a comparative study with implants located in left side of animals (not painted). By the other hand a material said a typical producer of intraperitoneal adhesions as polypropylene mesh is almost without any adhesions in many animals. **Conclusions:** Hyaluronidase gel reduces postoperative peritoneal adhesions ratio and grades including in the presence of polypropylene mesh.

P-70

CORRECCIÓN DE HERNIA DE MORGAGNI POR VÍA LAPAROSCÓPICA.

Vásquez J, Restrepo G, García VJ.

Lugar: Hospital Manuel Uribe Ángel Envigado-Antioquia-Colombia. Este video es acerca de un paciente de sexo masculino de tres años de edad, con múltiples neumonías a repetición quien en un estudio radiológico se encontró una hernia de Morgagni, se le realizaron estudios complementarios y se programó para cirugía, se le realizó corrección de la hernia por vía laparoscópica y con colocación de malla de prolene, el paciente evolucionó satisfactoriamente y ahora está asintomático.

P-71

LAPAROSCOPIC TAPP APPROACH TO PLACE A POLYPROPYLENE MESH ON THE ABDOMINAL WALL. AN EXPERIMENTAL SWINE MODEL TO EXTRAPOLATE THE TECHNIQUE FOR INCISIONAL HERNIA REPAIR

Díaz-Pizarro GJI, Mucio MP, Cárdenas LLE, Ramírez SME, Palacios RJA, Parraguirre MS.

Purpose and background: The placement of intra-abdominal prosthetic material entails the risks of adhesions and fistulas; which can be avoided by placing it pre-peritoneally. This approach has been used in inguinal hernia repairs with good results and could be extrapolated to incisional hernias. The objective of the present study is to evaluate, in an experimental model, the feasibility of a technique to place a polypropylene mesh on the abdominal wall preperitoneally by the laparoscopic approach and if it diminishes the complications related to its intraperitoneal collocation. **Material and methods:** Comparative, blind, experimental, prospective, randomized and transversal study, two groups consisting in eleven pigs each one, in which we placed an intraperitoneal (IPOM) or preperitoneal (TAPP) polypropylene mesh by laparoscopy. A diagnostic laparoscopy and en-block resection of tissue was done 28 days after for histopathologic analysis. The analysis of data compared: weight of pigs, surgical time of each technique, presence and grade of adhesions, presence of fistulas, complications and histopathologic reaction of tissue. **Results:** Eleven pigs per group. Weight, IPOM: 26.52 (+1.673) kg and TAPP: 27.03 (+1.669) kg (p=0.4833); surgical time, IPOM: 35.73 (+4.22) minutes and TAPP: 58.09 (+6.28) minutes (p=2.2279 x 10-9), being possible to place the mesh in all pigs. Adhesions, IPOM: 81.81% and TAPP: 27.27% (p=0.032); being grade III in IPOM and grade II in TAPP (p=0.001). Interloop adhesions, IPOM: 81.81% and TAPP: 9.09% (p=0.003). Absence of fistulas in both groups. Complications, IPOM: inflammatory reaction of the ileum serosa in one pig and colon serosa on another one. TAPP: abscess adjacent to mesh (p=1.0). There was fibrosis of peritoneum and serosa of affected organs in tissue of group IPOM. Group TAPP showed greater preperitoneal fibrosis (p=0.023), without affecting peritoneum or abdominal organs. **Conclusions:** The preperitoneal technique requires more time, but it has lower incidence of adhesions and less intra-abdominal inflammatory response; it is a feasible technique and it diminishes risks in the laparoscopic treatment of incisional hernias.

P-72

ENDOHERNIA SURGERY - SIR GANGA RAM HOSPITAL TECHNIQUE

Rajesh K. Consultant Surgeon. Department of Minimal Access Surgery. Sir Ganga Ram Hospital. Rajinder Nagar, New Delhi (India).

Laparoscopic approach for hernia has evolved rapidly over the past decade. We adopted the TEP repair early as we believe in preserving the sanctity of the coelomic cavity. Once well versed with the approach we have found it an efficient and cost effective method for groin hernia repair. Endoscopic totally extraperitoneal hernia repair is a technically demanding procedure. Indepth knowledge of anatomy is prerequisite for a good repair. To make the procedure cost effective and prevent hernia recurrences, we have modified and innovated to simplify the procedure. Patients are placed in supine position with 10-15^0 Trendelenburg tilt with arms resting against the body. A l0 mm incision is made below the umbilicus on the ipsilateral affected side. The anterior rectus sheath is incised, muscle retracted laterally and blunt finger dissection done caudally posterior to the rectus muscle. A sterile finger glove is tied around the tip of the suction cannula with silk thread, which is gently pushed into a plane posterior to rectus muscle towards symphysis pubis. About 150-200 cc of sterile saline is injected in the balloon and left in for 3-5 minutes to create an adequate preperitoneal space. After balloon deflation, the suction cannula is substituted by a blunt tip Hassan's cannula and space insufflated with carbon-dioxide to a pressure of l5 mmHg . A 30^0 scope is used at the subumbilical port. Two 5 mm trocars are placed in midline, one just above the symphysis pubis and the other midway between the two. The dissection is started after identification of the pubic bone in midline and then proceeds laterally. The entire posterior floor is dissected and the anatomical landmarks- inferior epigastric vessels, iliac vessels, gonadal vessels, was deferens, in males, round ligament of the uterus in females and nerves are identified. The lateral dissection is completed upon visualization of psoas muscle. Any direct sac is gently reduced of the fascia transversalis. A small indirect hernia is easily mobilized from the cord structures and reduced back in the peritoneal cavity and in cases of large sacs or in complete indirect hernia's extending up to scrotum, division of the sac just proximal to the internal ring is done, leaving

behind the distal sac. The edge of the peritoneum is pulled as far cephalad as possible, so that the mesh that will be placed over the posterior floor is covered by peritoneum, when carbon-dioxide is evacuated. A standard polypropylene mesh (15 x l5 cm) is used for each side. The mesh is rolled tightly up to 3/4ths of its length and anchored with two chronic catgut knots to prevent unfolding. The mesh is pushed into the preperitoneal space through the Hassan cannula and anchored with 2-3 tacks to the Cooper's ligament medially. (Spiral Tacker-Origin Medsystems, USA through the mid port. After securing the mesh, the catgut knots on the folded mesh are cut to unfold the mesh over the peritoneum i.e. floor. The mesh is placed to cover all the hernial defects (direct inguinal, indirect inguinal, and femoral). In bilateral cases similar procedure is performed and an overlap of meshes in midline preferred. The transected indirect sacs are ligated with endoloop to prevent internal hernia or adhesion to the mesh. Carbon-dioxide is released after securing the mesh and preventing any wrinkles or folds. The ports are closed in usual manner. With the modified SGRH technique we have found TEP to be safe, cost effective, reproducible and without significant complications. The results will also be evaluated and compared with other well established techniques.

P-73

LAPAROSCOPIC VENTRAL HERNIA REPAIR

Astaburuaga RC, Rodero RD. General and Digestive Surgery II. Laparoscopic Surgery. University Hospital "La Fe". Valencia. España.

Background: Laparoscopic surgery has achieved widespread acceptance among surgeons and by the public. The aim of this study is to show the therapeutic efficacy of laparoscopic surgery for ventral hernia repair. **Material and methods:** Between December 1999 and May 2003 we treated 96 patients for ventral hernia (53 women and 43 men with a range age of 44-76 years. The prosthetic mesh implanted in all the cases was DualMesh. **Results:** Laparoscopic ventral hernia repair was completed in 90 patients in whom it was attempted. Eighteen patients (18.75%) had recurrent hernias and 8 patients previously had implanted mesh. The mean defect size was 6.08 cm diameter and the size of the mesh used in most cases was 15 x 19 cm. Mean operating time was 55 min and hospital average stay 4.2 days. Conversion to open surgery was necessary in 6 patients (6.8%) due to: 4 dense adhesive bands and impossibility to place to mesh, 1 colic perforation with first trocar and 1 suspected small bowell perforation non confirmed. There were 13 postoperative minor complications, the most common was seroma, resolved without intervention. One patient needed a reoperation 4 days later because a small bowell perforation intraoperatively unnoticed. During a mean follow-up of 28 months, the hernia recurrence rate was 2.07% meanly related with the surgeon's learning curve. **Conclusions:** We consider the laparoscopic ventral hernia repair as a safe and effective therapeutic possibility carried on experienced hands and well trained surgeons.

P-74

MINIMALLY INVASIVE APPROACH FOR MANAGEMENT OF STRANGULATED SMALL HERNIA OF THE BROAD LIGAMENT

Saber AA, Maureen AK, Miller LA, Lloyd DB, Mubarak OA. Michigan State University/Kalamazoo Center for Medical Studies.

Introduction: Internal hernias are quite rare, comprising 0.5-1% of all hernias. Hernia through a defect in the broad ligament is extremely rare, constitutes only 4-5% of all internal hernias. Sixty eight cases of intestinal obstruction in hernias of the broad ligament have been reported. We herein present the first reported case of minimally invasive resection and repair of strangulated small bowel in a hernia of the broad ligament. **Methods and procedures:** A 57 year-old woman with no previous surgery who presented with a acute small bowel obstruction of undetermined etiology by CT scan. A hernia of the broad ligament was diagnosed laparoscopically. Minimally invasive resection of strangulated small bowel with primary anastomosis, and repair of the broad ligament hernia was performed. A laparotomy was avoided and the patient had uneventful postoperative course. **Conclusion:** This report illustrates the utility of laparoscopy as a safe and effective minimally invasive modality for both diagnosis and treatment of such a rare clinical entity. Five figures in our complete manuscript will illustrate the management of this patient. These figures include a preoperative CT scan, an intraoperative laparoscopic view of the strangulated bowel, the defect, the laparoscopic repair of the defect as well as the post operative picture for the trocar sites.

P-75

THE EFFICACY OF ENDOSCOPIC LINEAR CUTTER IN LAPAROSCOPIC DOME RESECTION AGAINST THE HUGE LIVER CYST

Tokuhisa Y, Hiraki S, Morita K, Kudo A, Fukuda S, Eguchi N. UBE INDUSTRIES, LTD. Central Hospital.

Introduction: A symptomatic huge liver cyst is good indication of laparoscopic surgery. The dome resection (sufficient unroofing of the cyst) is often chosen for that. The management for bleeding and bile leakage from resected margin is one of the most important problems in this procedure. The endoscopic linear cutter is very useful in endoscopic surgery, we reported the efficacy of endoscopic linear cutter in laparoscopic dome resection. **Case report:** A 70-year-old woman complaining upper abdominal discomfort was admitted in our hospital on April 10, 2003. A huge cystic region (15 x 13 cm) was detected in the right lobe of the liver on computed tomography (CT) examination, it is considered good indication of the dome resection. The laparoscope was inserted into the abdomen through the toracal (10 mm) under navel, and other three toracals (10, 10.5 mm) were inserted from epigastrium and right hypochondriums. The laparoscopic dome resection was begun using Harmonic scalpel but bile discharge was observed the resected margin, thus the endoscopic linear cutter was used for resection. Sufficient unroofing of the cyst was done and coagulation of the epithelium of the cyst wall was done using Argon beam coagulator. No bleeding and bile leakage was observed. Postoperative course was uneventful. **Conclusion:** The endoscopic linear cutter is very useful in the laparoscopic dome resection for the large liver cyst.

P-76

LAPAROSCOPIA EN TRAUMA

Rodríguez CM, Borda LG. Hospital Nacional Cayetano Heredia. Lima-Perú.

Objetivo: Analizar las características preoperatorias, intraoperatorias y los resultados posoperatorios de los pacientes con trauma abdominal sometidos a laparoscopia, determinando además su morbimortalidad. **Metodología:** El estudio es retrospectivo, descriptivo y analiza un grupo de pacientes con trauma abdominal sometidos a laparoscopia entre junio 1999 a diciembre del 2001 en el Hospital Nacional Cayetano Heredia (Lima-Perú). Se recolectó los datos en fichas *ad-hoc*. **Resultados:** Siete varones sometidos a laparoscopia por trauma abdominal. Todos con hemodinamia estable, 4 pacientes por lesión punzopenetrante, 1 por lesión de arma de fuego y 2 por trauma abdominal cerrado. Tres laparoscopias fueron totalmente negativas y en cuatro de ellas se encontró hallazgos positivos intraabdominales manejados por laparoscopia. No hubo conversiones. Un paciente fue reintervenido por laparotomía para drenaje de absceso. No hubo mortalidad. La estancia posoperatoria en el Servicio de Cirugía Abdominal fue de tres días. **Conclusión:** Las técnicas contemporáneas de laparoscopia en trauma son seguras cuando se aplican en pacientes estables y cuidadosamente seleccionados. El uso juicioso de la laparoscopia diagnóstica puede reducir el número de laparotomías negativas y no terapéuticas. Un pequeño número de pacientes con trauma pueden beneficiarse de una laparoscopia terapéutica.

P-77

LAPAROSCOPIC MANAGEMENT OF NON-PARASITIC LIVER CYSTS

Olvera HH, Mondragón SA, Méndez VG, Domínguez CL, Velázquez GR, Torices EE, Tort MA, Núñez GE, Echávarri AJM.

Background: Non-parasitic liver cysts have a global incidence of 5%. Commonly they are located in the right lobe of the liver, they are frequently diagnosed incidentally during routine radiological examinations. Symptomatic cysts are large and often associated with pain, nausea, vomit, delayed gastric emptying, portal hypertension, obstructive jaundice and occasionally portal vein thrombosis. **Patients and methods:** Patients with diagnosis of non parasitic liver cyst were included in this study, charts were reviewed retrospectively from January 2000 to July 2003. Laparoscopy with cyst unroofing was the procedure of choice in this type of patients. Variables studied were: age, sex, symptomatology and surgical procedure among others. **Results:** Seventeen patients included in this study, 13 female (76.5%) 4 male (23.5%), with a higher incidence in the 6th decade of the life. The main symptom was pain in right upper quadrant 12 patients (70.5%), 1 patient presented pain and nausea (5.9%), 1 gastroesophageal reflux, 1 pain and a palpable mass, 1 jaundice, and 1 thoracic pain. Seventeen patients were treated with cyst unroofing (76.5%) and 4 were added cholecystectomy (23.5%). There were 9 cysts (53%) in the right lobe, 2 (11.7%) in the left lobe and 6 patients had bilateral disease (35.3%), size of cyst ranged from 1.5 to 15 cm. Median follow up is two years. After surgical treatment there was remission of symptoms in 16 patients (94.1%), 2 patients presented recurrence. Complications were not observed. **Conclusions:** Laparoscopic unroofing of non-parasitic liver cysts is a safe and effective treatment for this disease, with low morbidity and mortality. Larger studies and longer follow up is needed in order to evaluate definitive long term outcome.

P-78

LAPAROSCOPIC ADRENALECTOMY: A PROSPECTIVE EVALUATION OF 131 PATIENTS

Maciej O, Dzwonkowski J, Szostek G, Nawrot I, Allah Poor HF, Bojakowski K, Szmidt J. Dept. of General, Vascular and Transplant Surgery, Medical University of Warsaw, Poland.

Currently laparoscopic adrenalectomy (LA) is often accepted as a standard treatment. The aim of this study was to present our results and experience in LA via transperitoneal lateral approach to adrenal tumours surgery. **Material and methods:** In our material we evaluated 138 LA performed on 131 patients since 29.10.1997. There where 94 (72%) women and 37 (28%) men with the mean age of 51 years. Fifty two tumours were located on the left side, 86 on the right side and the mean tumour size was 43 mm in diameter. We performed 124 (95%) unilateral LA, 7 (5%) simultaneous bilateral LA, additionally 8 (6%) simultaneous cholecystectomies and 1 (1%) simultaneous umbilical hernioplasty 44 (34%) patients had a history of abdominal surgery. In 55 (42%) cases non-functional incidentaloma was found and in the remaining 76 (68%) functional tumours: Conn's syndrome-17 (16%), Cuching's syndrome-33 (23%), pheochromocytoma -13 (18%), adrenogenital syndrome -1. **Results:** We had 8 (6.1%) conversions and 13 (10%) complications. We observed 10 (7.6%) postoperative complications (1-pancreatic fistula, 8 hematomas in the trocar place, 1-clotting disturbances) and 3 intraoperative complications (1-bleeding from the lacerating tumour, 1-bleeding from splenic vein, 1-bleeding from the port site). The mean operating time of the unilateral LA was 180 minutes (range: 75-530), simultaneous bilateral LA was 304 (range: 255-420), and AL with simultaneous cholecystectomy was 200 (range: 135-300). The mean length of postoperative stay in hospital was 7 days. Histological examination of nonfunctional tumours revealed: the benign nature of the tumor in 52 (94.6%) cases (adenoma-37 (67.3%), adenocystoma –1 (1.8%), cyst-9 (16.4%), myelolipoma –1 (1.8%), fibroneuroma –2 (3.6%), ganglioneuroma-2 (3.6%), the cortical carcinoma in 2 (3.6%) cases and the metastasis in 1 (1.8%) case. **Conclusions:** AL via transabdominal lateral approach is a safe method with increased postoperative comfort of the patients and gives a good topographic view of the abdominal organs especially inferior vena cava. Previously performed abdominal surgery shouldn´t be a decisive factor affecting the selection of the approach to the adrenal.

P-79

BILATERAL ADRENAL TUMORS IN LAPAROSCOPIC SURGERY

Otto M, Dzwonkowski J, Nawrot I, Poor HFA, Jakimowicz T, Szmidt J. Dept. of General, Vascular and Transplant surgery, Medical University of Warsaw. Poland.

The aim of this study was to present the method and the difficulties in simultaneous bilateral laparoscopic adrenalectomy (SBLA) via lateral transperitoneal approach. **Method:** From 29 November 1997 to 31 July 2003, 131 patients underwent laparoscopic adrenalectomy (LA). In 7 cases (5 women and 2 men, mean age -50.7 years) SBLA was performed, among them 3 patients with pheochromocytoma (all had multiple endocrine neoplasia type 2 a syndrome), one with Cushing disease, 2 with Cushing syndrome and one with incidentaloma. The mean adrenal lesion size was 37.1 mm (range 15-70). The patients were operated via lateral transabdominal approach. The operation started on the right side. A view into the retroperitoneal space was routinely obtained: on the right side – incising the right triangular ligament of the liver and elevating the liver with the fan retractor, on the left side – mobilizing the splenic flexure of the colon, displacing the spleen with the pancreas medially and superiorly, and the transverse colon and splenic flexure inferiorly. Routinely, on each side 4 trocars were inserted (first one via minilaparotomy). **Results:** In one case the conversion to open adrenalectomy was necessary. After the laparoscopic removal of both adrenal tumors, the hemorrhage from the splenic artery appeared and couldn't be controlled because of a damage to an irrigation/suction device. There were no postoperative complications. The mean operating time of the SBAL was 304 minutes. The mean length of postoperative hospital stay was 7 days. **Conclusions:** 1. AL via lateral transabdominal approach can be acknowledge as an affective and safe method for bilateral lesions resection. 2. The main problem is associated with the necessity of patient's reposition and "starting all over again", what prolongs the time of the operation. 3. The postoperative comfort of the patient compensates for the longer operation time.

P-80

LAPAROSCOPIC SPLENECTOMY FOR IDIOPATHIC THROMBOCYTOPENIC PURPURA (ITP): LONG TERM RESULTS OF A PROSPECTIVE SERIES OF 114 PATIENTS

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

Introduction: Idiopathic thrombocytopenic purpura (ITP) is considered the best indication for Laparoscopic splenectomy (LS), however, results on long-term basis are lacking. Some authors have considered the risk of long-term failure due to the missing of accessory spleens or the spillage of splenic tissue. Thus, information of the clinical outcome of LS for ITP treatment is essential to assure the efficacy of this approach. **Aim:** To evaluate the immediate and long term results up to 9 years of a series of 114 LS performed for IPT. **Material and method:** From February/93 to August/02, LS were consecutively attempted in a series of 114 non-selected patients diagnosed of ITP (37 men, 76 women; mean age; 39 y) in two surgical units, and clinical results prospectively recorded. Preoperative results (op. time, conversion, morbidity and postop, stay) as postoperative follow-up evaluation have been analyzed. Long–term follow-up was obtained through clinic notes, referring hematologist follow-up visits and by phone interview. **Results:** Mean preoperative platelet count was 66.589 and the presurgical symptomatic mean time was 42 m. Mean op. time was 128' with a conversion rate of 4 % and a postop morbidity of 13 % (mild 6%, severe 7%), without operative mortality. Mean hospital stay was 4 d 7 patients required reoperation (6%), due to hemoperitoneum. At hospital discharge 80% of patients had platelet count >100.000 and 52% of patients had platelet count > 150.000. Ninety patients (80%) were evaluated after a mean follow-up of 37 m. Eighty patients (89%) showed remission of the disease (complete remission (platelet count > 150.000: 68 patients (76%) and partial remission (platelet count > 50.000) in 12 patients (13%), and no response in 10 patients (11%).

Interval mortality rate was 4% (n:4) with 1 case disease-related death. No cases of splenectomy-related sepsis were observed. Seventy eight % of patients with platelet count > 100.000 at hospital discharge maintained a long term complete remission, while 47% of the patients with immediate postoperative platelet count < 100.000 presented partial or no remission in follow-up. Mean age in patients with complete remission was 37 y, inferior to the others groups (partial remission: 41 y and no response 50 y). **Conclusions:** Immediate and long term clinical result shows that LS for ITP is a safe and effective therapy. These results are comparable to those obtained after standard open splenectomy.

P-81

LAPAROSCOPY-ASSISTED LEFT LATERAL SEGMENTECTOMY FOR HEPATOCELLULAR CARCINOMA

Ohta M, Sasaki A, Matsumoto T, Shibata K, Kitano S. Department of Surgery I, Oita University, Oita, Japan.

Description: Purpose: Laparoscopic hepatectomy was initially reported in 1992. However, this operation has not been a standard procedure now. The aims of this study were to perform a comparison between laparoscopy-assisted and conventional left lateral segmentectomy for hepatocellular carcinoma (HCC) and to investigate the importance of this procedure in the hepatic surgery. **Methods:** From July 1994, 38 patients with liver tumors (25 HCC, 8 metastatic tumors, and 5 benign tumors) were treated with laparoscopic procedures in our institute, which consisted of 22 hepatectomy (15 laparoscopy-assisted left lateral segmentectomy and 7 laparoscopic partial hepatectomy) and 16 ablation (microwave or radiofrequency). Laparoscopy-assisted left lateral segmentectomy for HCC (n = 10) was compared with conventional open surgery (n = 14) in regard to short-and long-term results. Laparoscopy-assisted left lateral segmentectomy was performed as follows; under the laparoscope using pneumoperitoneum, ligaments around left hepatic lobe were dissected and then the left lobe was mobilized. And middle skin incision was made, and manual liver resection was performed through the skin incision. **Results:** Without conversion to the open surgery, mean skin. incision length was 7.5 ± 1.2 cm in the laparoscopy-assisted surgery. There were no significant differences between the two groups in operative time, estimated blood loss, resected liver weight and resected margin. Regarding the postoperative course, laparoscopy-assisted group significantly had better results in analgesics, first operative days, its body temperature, weight loss and hospital stay. There were no significant differences in the disease-free and patient survival between the two groups. **Conclusions:** Since laparoscopy-assisted hepatectomy is superior to conventional surgery in the short-term results and does not deteriorate long-term survival, it is to be an alternative treatment for HCC.

P-82

LAPAROSCOPIC STAGING FOR UNRESECTABLE PANCREATIC CANCER

Rockson CL, Traverso LW.

Purpose: Evaluate the role of staging laparoscopy in patients with locally unresectable pancreatic cancer. **Methods:** Between April 2000 and July 2003, 53 patients with locally unresectable pancreatic cancer, but no computed tomography evidence of metastasis, underwent outpatient mini staging laparoscopy. Peritoneal lavage was performed in all patients. Liver capsule and peritoneal lesions suspicious for metastasis were biopsied. **Results:** Nineteen patients (35.8%) had unsuspected metastasis on staging laparoscopy. Fifteen patients (28.3%) had peritoneal lavage cytology with either malignant (12 patients) or suspicious (3 patients) cells. Metastatic lesions were found on the liver capsule in 8 patients (15.1%) and peritoneal surface in 3 patients (5.7%). Body and tail tumors were twice as likely as tumors in the head (58.3% *vs* 26.8%, P ≤ 0.05) to have unsuspected metastasis. Patients who were upstaged by laparoscopy presented with significantly higher CA 19-9 levels (P ≥ 0.01). The average operative time was 50 min (range: 20 to 116). Two (3.7%) patients had operative complications requiring overnight observation. **Conclusions:** Computed tomography is not adequate for accurate staging of unresectable pancreatic cancer. Routine staging laparoscopy will identify undetected metastasis in a significant proportion of patients with unresectable pancreatic cancer.

P-83

COMPARISON BETWEEN ENDOSCOPIC THYROIDECTOMY BY AN AXILLARY APPROACH AND CONVENTIONAL THYROIDECTOMY

Hyun LJ, Young SG, Min BJ, Sang LD, Kim W, Young PI, Man WJ.

Purpose: Conventional thyroidectomy is safe and effective method for patient with thyroid tumor but require scar on the anterior neck. For eliminating the unattractive scar, various types of endoscopic thyroidectomy have developed since 1997. But endoscopic thyroidectomy has not become popular because this procedures do not offer a large benefit. The aim of the study was demonstrate the advantages offered by endoscopic thyroidectomy with respect to the conventional thyroidectomy but also its drawback. **Method:** Between June 2002 and December 2002, 17 patients were treated using an endoscopic thyroidectomy via an axillary approach and 10 patients were treated using conventional thyroidectomy were selected in this study. Patients with thyroid carcinoma at preoperative diagnosis and patients were treated using bilateral thyroidectomy were excluded. We analyzed retrospectively. We compared time, postoperative pain, complication, paresthesia, length of the hospital stay, cosmetic result. **Result:** The operative time was 135.3 Â ± 34.6 minutes for endoscopic thyroidectomy and 80.9 Â ± 16.1 minutes for conventional thyroidectomy (p = 0.001). There was no difference between the two groups with regard to postoperative pain. Two months after surgery, there was no difference between the two groups with regard to paresthesia. There was no difference between the two groups with regard to length of hospital stay. Cosmetic results evaluated by verbal response scale was in favor of endoscopic thyroidectomy group (p = 0.001). There was no difference between the two groups with regard to complication. **Conclusion:** Endoscopic thyroidectomy via an axillary approach offers goc cosmetic result but the long operative time remains to be overcome.

P-84

ADRENAL ADENOMA RESECTION BY LAPAROSCOPY. A CASE REPORT AND BIBLIOGRAPHY REVIEW

Sastré LM, Zavala SR, Sarmiento HO, Ortega AI, Gutiérrez GG.

Background: The adrenal adenoma is generally a unique benign tumor, that sometimes can produce general illness. In the broadest way, they're classified as functional and non-functional. In the functional, the normal course begins with Cushing syndrome because of a tumor that produces cortisone, then, it continues with hyperaldosteronism or Conn's disease, and finally, one that produces sexual hormones. In the non-functional, the only description is the incidental adrenal mass. **Description:** The presentation of this pathology is very unusual in the population and the final management is the surgical resection for the functional forms, and CT control every three or six months for the nonfunctional forms. **Case report:** A sixty-five years old female, with one year evolution of a probably Cushing syndrome, hipotyroidism management with levotiroxin, that begins with astenia, adinemia, facial edema, muscular weakness with cramp, poliuria and nicturia. In the physical exploration we found a obese female, with hirsutism, cushinoid face, with blood pressure of 180/100. We rejected the Cushing syndrome diagnosis because of the laboratory results, and made the diagnosis of hyperaldosteronism because of the presence of a left adrenal adenoma (Conn's syndrome), demonstrated by TAC, high amounts of serie aldosterona, serie renina and hipokalemia. **Results:** The patient was managed with left adrenal resection by laparoscopy and medical management with espironolactone and anti-hipertensive drugs. **Conclusions:** It is true that the primary aldosteronism caused by adrenal adenoma (Conn's disease) is strange in our population, but it is also important to bear it in mind and not get confused with other endocrinological

illness that appear like the Cushing syndrome. In this case the patient had a wrong management for about one year without success and because of a better diagnosis, she had a better evolution.

P-85

CIRUGÍA LAPAROSCÓPICA COMO ALTERNATIVA EN LA RESECCIÓN DE NEOPLASIAS SUPRARRENALES: REPORTE DE UN CASO

Blanco-Gallardo A, Alfaro-Ruiz JL, León-Vilchis FM, Cisneros-Aljuria RC, Zárate-Hernández SA, Samaniego-Arvizu G, Bautista-Cruz R, Villaseñor-Jaime A, Zavala-Luján L, Casaos-Martínez H, Rincón-Taracena R, Gutiérrez-Flores C, López Osorio J. Departamento de Cirugía. Departamento de Imagenología. Departamento de patología. Departamento de Endocrinología. Departamento de Anestesiología del Hospital General Dr. Gustavo A Rovirosa Pérez, Villahermosa Tabasco México.

Objetivo: Presentar en video un caso clínico de resección de glándula suprarrenal izquierda. Los avances en la cirugía mínimamente invasiva han hecho posible realizar cirugía de órganos sólidos como las glándulas suprarrenales. Desde su descripción por Gagner en 1992, diversos estudios han demostrado su utilidad como una alternativa a la cirugía convencional. Sus ventajas son ya conocidas: menor dolor postoperatorio, rápida recuperación y pronto regreso a sus actividades cotidianas, además de no dejar una cicatriz antiestética de menor relevancia. Las indicaciones son prácticamente las mismas que la cirugía convencional, aunque aún resulta controversial en neoplasias malignas por el riesgo de siembras tumorales y/o recurrencias regionales. Presentamos el caso de Universitaria con 23 años de edad, núbil, menarca a los 13 años, con diagnóstico de síndrome de Cushing de 7 meses de evolución, se identificó un tumor en glándula suprarrenal izquierda por tomografía axial computarizada de 3 centímetros de diámetro aproximadamente, se le realizó adrenalectomía laparoscópica con dos puertos de 5 milímetros y uno de 10 milímetros, sin incidentes ni accidentes, buena evolución postoperatoria, alta del servicio de cirugía en 48 horas y por endocrinología al 5° día, el estudio histopatológico reportó adenoma cortical. Seguimiento de 8 meses con evolución satisfactoria. **Conclusiones:** Técnicamente es la mejor alternativa en neoplasias de origen benigno, cuando se ha tenido experiencia en cirugía endoscópica avanzada.

P-86

HÍGADO MULTILOBULADO: REPORTE DE HALLAZGO QUIRÚRGICO EN LAPAROSCOPIA

López MJA, Palacio VFA, Delgado CM, Acosta MA, Hernández A, Portilla FVH. Hospital Regional “Gral. Ignacio Zaragoza”, ISSSTE. México, D.F.

Antecedentes: El hígado multilobulado es una variedad anatómica congénita poco común cuya frecuencia no se ha reportado en la literatura, generalmente cursa asintomático y se describe como hallazgo en estudios imagenológicos o en cirugía abdominal. **Métodos:** Presentamos el caso de paciente operada en forma electiva de funduplicatura de Nissen por laparoscopia en forma exitosa y que se encontró como hallazgo hígado multilobulado**. Presentación de caso:** Femenino de 47 años, originaria y residente del D.F. ama de casa, casada, católica y sin toxicomanías. AHF: Madre con HTAS. APP: Cesárea hace 25 años por embarazo gemelar, hepatitis A hace 23 años sin complicaciones, HTAS de 15 años de evolución. AGO: Menarca 15 años ritmo 5-9/28, G5, P3, A1, C1. PA: Refiere 5 años de evolución con pirosis, regurgitación ácida, tos ocasional, disnea nocturna, inicialmente tratada con antiácido y procinético sin mejoría, se practica panendoscopia que reporta esofagitis GI, hernia hiatal grande y enfermedad por reflujo gastroesofágico; se da tratamiento con inhibidor de bomba de protones y procinético sin mejoría clínica, por lo que se decide su tratamiento quirúrgico por vía laparoscópica encontrándose hernia hiatal grande, periesofagitis, hiato abierto e hígado multilobulado; se realiza disección de hiato y funduplicatura de Nissen + Allison, finalizado sin complicaciones. Se toman pruebas de función hepática que resulta en parámetros normales. La paciente cursa con buena evolución postoperatoria y es egresada al 2° día en buenas condiciones generales. **Conclusiones:** La cirugía laparoscópica es un procedimiento seguro en casos de cirugía abdominal, pudiendo encontrarse variedades anatómicas de los órganos abdominales, incluyendo casos como el hígado multilobulado que cursan asintomáticos y sin alteraciones en los laboratorios.

P-87

QUISTE HEPÁTICO NO PARASITARIO, TRATAMIENTO LAPAROSCÓPICO

Ruiz VA, García AJ, Hernández RJL, Dávila RD, Padilla MCD.

Introducción: Los quistes del hígado se dividen en parasitarios y no parasitarios. Los no parasitarios son los más frecuentes y se deben tratar cuando el paciente presenta sintomatología (Dolor o datos de compresión) o complicaciones del quiste. El tratamiento puede ser mediante drenaje percutáneo o resección de la cápsula del quiste mediante cirugía abierta o por cirugía laparoscópica. **Objetivo:** Demostrar la experiencia del Hospital Juárez de México, en el tratamiento de los quistes hepáticos no parasitarios, sintomáticos, con cirugía de mínima invasión. **Material y métodos:** Se estudiaron seis pacientes (5 mujeres y 1 hombre), con quiste de hígado diagnosticado por ultrasonido, en todos se les hicieron pruebas inmunológicas para descartar que fueran quiste hidatídico. En todos los pacientes se les resecó la pared del quiste hepático. En dos pacientes en el momento transoperatorio antes de resecar el quiste, se les realizó escleroterapia con aplicación de alcohol al 96%, se esperó 10 minutos antes de efectuar la resección. **Resultados:** Se pudo realizar la cirugía laparoscópica en forma satisfactoria en todos los pacientes, no existió ninguna complicación transoperatoria ni postoperatoria, los pacientes se egresaron de 2 a 3 días de postoperatorio y en un seguimiento de 9 meses a 63 meses no se presentó ninguna recidiva, en el seguimiento clínico y mediante ultrasonografía. **Conclusiones:** El tratamiento de mínima invasión para los quistes hepáticos no parasitarios, debe ser el estándar de oro para su tratamiento, debido a las ventajas que ofrece este tipo de cirugía en el transoperatorio y postoperatorio.

P-88

ENDOSCOPIC THYROIDECTOMY: CASUISTRY FOR PAPILLARY CARCINOMA

Alvarez GC, Faria EN, Carnieletto MDH, Pansard RB, Schmitz MD, David F.

Background/Aims: Endoscopic thyroidectomy is one of the most controversial endoscopic procedures. However it is gaining wide acceptance as a safe and effective alternative in the treatment of thyroid benign pathology. The purpose of this study is to show the safety, feasibility and success rate of the endoscopic thyroidectomy for malignant pathology of the thyroid. **Methodology:** A study comprising 19 consecutive patients who underwent to endoscopic thyroidectomy were prospectively reviewed. Matched for age, gender, nodule size, type of surgery, conversion, perioperative complications, operative time, mortality, discharge and pathology findings. Uses a technique variation, with a main port of 1 cm transverse incisions made on the supraesternal notch and two ports of 5 mm on the medial edge of the esternocleidomastoid muscle, 1 cm and 2 cm above the clavicle and enter with a 2 cm incision in the midline muscle direct to the thyroid space. Use CO_2 to create the space, scissors and clips or harmonic scalpel was used to perform the resection. **Results:** All patients underwent to endoscopic thyroidectomy. The age ranges from 16 to 58 (mean 32.2), 16 (84.2%) were female and 3 (15.8%) male. The surgical procedures were left lobectomy 1 (5.26%), right lobectomy+ isthymectomy 6 (31.5%), left thyroidectomy+ right nodulectomy 4 (21%), right lobectomy+ left nodulectomy 2 (10. 5%) and total thyroidectomy 6 (31.5%). The operation time ranged from 90 to 300 minutes [mean 140 minutes]. There was 1 (5.26%) patient with transitory hipoparathyroidism. The mortality rate was zero; there was 1 (5.26%) conversion. The specimen size ranged from 3 to 8 cm [mean 5.09 cm]. Two (10.5%) of the patients had been submitted to open thyroidectomy and 4 (21%) to laparoscopic thyroidectomy. **Conclusions:** This technique demonstrates surgical alternative on papillary carcinoma of 1^{fr} degree, showing low morbidity and discharge rate. The great advantage is an excellent aesthetic result.