Royal Belgian Society for Surgery

Abstracts of Video Free Papers
V1. — LAPAROSCOPIC SPLENO-PANCREATECTOMY.
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Laparoscopic surgery has been used increasingly as a less invasive alternative to conventional open surgery. Recently, laparoscopic therapy for pancreatic diseases has made significant progresses. The current movie presents pancreatic resection by laparoscopy. Few short series exist in the literature about the laparoscopic pancreatic resection (for benign and malignant lesion of pancreas). We recently (in the 2005) treated in our institution two patients with malignant lesion of the caudal pancreas. The video presents the case of a patient (man 76 years) with a malignant lesion (carcinoma in situ) situated in the distal pancreatic duct. Bearing in mind the position of the lesion and the comorbidities of the patient, we choose a laparoscopic approach. The video illustrates the technical keypoints that we used to accomplish the performed operations as safely as possible: dissection of the pancreas, vessels selective ligatures, sectioning of the pancreas, intracorporeal suturing of the Wirsung duct, use of ultrasonic scissors, splenectomy. Blood loss was 300 cc and did not require any transfusion. There were no post-operative complications.

V2. — LAPAROSCOPIC CONVERSION OF AN ADJUSTABLE SILICONE GASTRIC BANDING INTO GASTRIC BYPASS (LÖNROTH).
Clinique Saint-Jean, Bruxelles, Belgium.
In the treatment of morbid obesity, laparoscopic gastric banding is nowadays the commonest surgical option. However, for patients suffering from morbid obesity with body mass index higher than 45 and for those who are “sweat eaters”, the gastric bypass has been shown to be more efficient. That procedure is performed by laparotomy since the beginning of the eighties. For obese patients who have not responded to laparoscopic gastric banding, a redo usually offers poor results. In those cases, gastric bypass might thus be an alternative. The first aim of this video presentation is to show how gastric bypass can be performed after silicone gastric banding. The second one is to demonstrate that it can be completed safely by laparoscopy.
V3. — LAPAROSCOPIC LIVER RESECTION, CANADIAN SINGLE CENTER INITIAL EXPERIENCE.
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Objective. To prospectively assess the feasibility, safety and outcome of laparoscopic liver resections and to present the first Canadian experience.

Methods. Between December 2004 and December 2005, 20 patients (mean age of 52.2 years) underwent 21 liver resections. Indications were symptomatic hemangioma (n = 3), focal nodular hyperplasia (FNH) (n = 1), adenoma (n = 2), cystadenoma (n = 2), polycystic liver disease (n = 3), metastasis (n = 8) and hepatocellular carcinoma (n = 2). Liver transection was done using a harmonic scalpel or a vessel-sealing device.

Results. Resections were as follow: 7 left lateral segmentectomies, 6 left hepatectomies, 3 bisectionectomies, 4 segmentectomies and one non-anatomical resection. In 2 patients liver resection was combined with a marsupialisation of liver cysts. Eleven patients had previous laparotomy and 8 had underlying liver disease. Mean tumour size was 5.81 cm. The mean margin of resection was 1.62 cm with one (6%) positive margin (FNH). The mean operative time was 202.6 minutes. Mean operative blood losses were 215 ml. No patient experienced intra-operative complications or conversion. Nine postoperative complications occurred in 6 patients (30%): urinary infection (n = 1), prolonged abdominal drainage (n = 2), arterial hypertension (n = 1), migraine (n = 1), cellulitis (n = 1), biliary leak (n = 2) and respiratory insufficiency (n = 1). No blood transfusions were required. The mean hospital stay was 4.5 days.

Conclusions. Laparoscopic liver resection is safe and feasible. Extensive experience in hepatic and laparoscopic surgery is imperative. Lesions located to the left lateral segments or in the anterior segments of the right liver are the best indications. Our complication rate is low and this technique seems to offer short-term benefits. Late outcome should be further studied.

V4. — LAPAROSCOPIC APPROACH TO INCARCERATED FEMORAL HERNIA.
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Femoral hernias often present as incarcerated hernias at the time of their first diagnosis. This is due to the anatomical boundaries of the femoral canal and because non incarcerated femoral hernias are often asymptomatic. The diagnosis and the treatment of incarcerated femoral hernias are challenging. First of all there is the need for visual control of the content of the incarcerated hernia. A segmental small bowel resection might be necessary, if irreversible ischemia or necrosis is present. Secondly a hernia repair is needed. All repairs limited to repair on to the inguinal ligament are insufficient because of the anatomical localisation of femoral hernias. With an anterior approach a Cooper ligament repair is adequate. Preperitoneal mesh repair, either open or laparoscopic is also adequate. In cases of small bowel resection use of a mesh repair carries the risk of mesh infection.

We favor a laparoscopic approach to incarcerated femoral hernias because it allows a good visualization of the small bowel and the hernia content. The transabdominal preperitoneal mesh repair is very adequate to repair a femoral hernia because it widely covers the femoral canal. In cases of need for small bowel resection a delayed repair of the hernia is proposed to avoid the risk of mesh infection.

In our video we will demonstrate our personal technique for transabdominal preperitoneal mesh repair in cases of incarcerated femoral hernias. We will illustrate this with some case reports and video fragments of the different problems encountered.
V5. — BOERHAVE’S SYNDROME.
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Background. Boerhaave’s syndrome requires urgent thoracotomy, laparotomy, or both for esophageal repair and pleuromediastinal debridement. Minimally invasive techniques may be suitable alternatives.

Material and Methods. Over a period of 12 months, three patients with spontaneous esophageal perforations after forceful vomiting were treated by a combination of minimally invasive techniques including laparoscopy, thoracoscopy, mediastinoscopy, and endoscopic stenting.

Results. Esophageal repair was performed transhiatally via laparoscopy using primary suture, primary suture reinforced by a fundic patch, and a fundic patch alone in one patient each. One patient had a second perforation of the proximal esophagus, which was sutured through a cervical incision. This patient successfully underwent secondary endoscopic stenting for a persistent esophageal fistula. Mediastinal debridement was performed transhiatally and also by means of a mediastinoscope introduced via the cervical incision in one patient. One patient required secondary thoracoscopic debridement of a pleural empyema but died of sepsis after one month. The two other patients recovered and were discharged from the hospital after 2 and 8 weeks, respectively.

Conclusions. Boerhaave’s syndrome is amenable to minimally invasive techniques. Avoidance of a formal thoracotomy with its resulting morbidity could be of considerable benefit to these critically ill patients.

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Background. The short anatomy of the vein may facilitate right donor nephrectomy and advocate use of new tools or can be managed by vascular reconstruction. The use of a factory stapler devise corrupts the length of the procurement vessels. In the available literature we did not fined an analog of the tool which we use for the hemostasis of the renal vein of the right kidney during living donor harvesting. The use of modified GIA allowed an easy vascular anastomosis, what can lead to better outcome of the living donating procedure.

Method. We performed on a patient a new surgical sustain closure of renal vein during a live donor nephrectomy with modified 1 Endopath ETS45 2.5 mm GIA Eticon®. The rows on the side of the graft of the Endo-GIA tool were manually removed. After the dissection of the right kidney with the ureter and preparing of the vessels, the artery was clipped using Hem-o-lock® clips. The renal vein was under small traction transacted with the modified stapler on its entrance in the caval vein. The extra 10 mm of the vein length with the pouch was preserved after utilization of this device.

Results. The hamostasis of the renal vein in this particular case was done without any technical difficulties. There were no intra- or postoperative hemorrhage. The laparoscopic nephrectomy was performed in usual setting. Warm ischemia time was 3 min. The extra 10 mm, which is normally lost due to an application of the any clips or suture, was obtained.

What reduces total ischemia time, dramatically simplified veinose anastomosis, positioning and reperfusion of the kidney graft, dismissed need in a vascular reconstruction. Moreover using such technique a renal vein can be prepared with a small pouch of caval vein.

Conclusion. The utilization of the modified Endo-GIA tool for the hamostasis (with vena caval pouch possibility) seems to be an attractive and useful technique. It can be successfully adapted to the living donor procurement and can be done using standard Endo-GIA tool. It gives in experienced hands of the surgeon full control of the hemostats after section of the renal vein. Of cause Endo-GIA may not be applicable in a certain anatomic situations. But in the case of the short or/and lager anatomy of the renal vein it can be a good option. This technique with an utilization of the modified unilateral clips loss stapler devise can be used in a laparoscopic and classic living donor nephrectomies to spare the length of the vein what lead to an easy implantation of the graft.
V7. — THE MANAGEMENT STRATEGY OF COMMON AND INTRA-HEPATIC BILE DUCT STONES (CIHBDS) STILL IS SUBJECT OF CONTROVERSY.

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Laparoscopic Cholecystectomy (LC) combined with Perioperative Endoscopic Sphincterotomy (POES) is a common technique for the treatment of Common Bile Duct Stones (CBDS) during a single operative procedure. Alternative to this procedure is the use of Laparoscopic Bile Duct Exploration (LBDE).

This video illustrates the successful use of LBDE, in a second stage operation, as the treatment of multiple CIHBDS after failure of combined LC and POES. Clinical case, procedure and details are exposed.

V8. — THYMECTOMY BY V.A.T.S. (VIDEO-ASSISTED THORACOSCOPIC SURGERY)


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Video-assisted thoracoscopic thymectomy is a useful new approach for mediastinal mass assessment. Case. An anterior mediastinal mass was diagnosed in a man of 48 years old, following the assessment of a thyroid nodule. Radiological investigations by tomodensitometry showed a well defined anterior mediastinal mass and fixing on positron emission tomography. The different tumour markers were negative. The thoracoscopic procedure confirmed a well defined thymoma. A complete resection was performed during the same procedure. The final diagnosis was a type B2 thymoma (W.H.O. classification). The patient was discharged from hospital on the fifth postoperative day post without any complications.

Discussion. V.A.T.S. is a new minimally invasive procedure used to assess mediastinal masses. It seems particularly interesting for thymic resections in cases of myasthenia gravis or benign tumours. With regards to the management of thymomas, V.A.T.S. is controversial. Some authors suggest V.A.T.S. is a safe approach, while others consider it cannot offer a complete resection security. The complete surgical resection remains the gold standard in thymocarcinoma management.

Conclusion. As in abdominal surgery, V.A.T.S. opens the way to new surgical techniques and treatment solutions. It is important to assess this new approach scientifically and to define its place in the therapeutic arsenal in the future.
V9. — ACHALASIA : LAPAROSCOPIC HELLER MYOTOMY WITH DOR FUNDOPLICATION.
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Achalasia may be treated by medical treatment (calcium channel’s blockers or nitrates), by pneumatic dilatation, by injection of botulinum toxin or by Heller myotomy. In clinical trials, this surgical treatment has shown the highest long term efficacy on dysphagia. This intervention is also effective on chest pain associated with achalasia. Minimal invasive techniques have demonstrated a comparable efficacy to open procedures. This presentation will illustrate, by a video, why Heller myotomy should be performed by an abdominal laparoscopic approach rather than by a thoracoscopic one, be combined with an antireflux Dor fundoplication and be extended to the gastric wall.
The advantages, complications and controversies of this surgical technique will also be discussed.

V10. — A LAPAROSCOPIC TECHNIQUE FOR HUMAN ISLET TRANSPLANTATION

Intraportal islet transplantation is usually performed by percutaneous transhepatic injection of the islets into a portal vein branch. However complications have been described with this technique. Moreover a second transplant requires a new procedure. In this study, we describe a laparoscopic approach for islet transplantation in a defined liver segment. Under laparoscopic approach, ligamentum teres hepatis was dissected and the umbilical vein was reopened by inserting a catheter up to the left branch of the portal vein. Under fluoroscopic control, the catheter was guided into a chosen liver segment and finally secured on the skin (first 13 patients) or connected to an implantable venous access device (next 38 patients). Thereafter, islet preparation was slowly injected. No rise in the portal pressure was observed. The use of the access device allowed us to inject a second graft up to several months later.
Sixty four procedures were performed in 51 type 1 diabetic patients. The main reason for a second laparoscopy was the dislocation of the catheter. The median operating time was 85 minutes. The procedure was successful in 62 out of 64 cases. In those 2 patients, islets were delivered by cannulation of a colic vein. No surgical complications occurred. We conclude that the laparoscopic approach is an easy and safe alternative technique for islet transplantation. Furthermore, it allows multiple injections of islets in the same liver segment without need for extra procedures.