

Gastroesophageal diversion for primitive alkaline gastritis

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Alkaline and/or mixed gastroesophagitis are clinical entities that only in recent years received an individualized pathophysiological interpretation. On the basis of their aetiology are divided into primitive and secondary types. If there is a certain agreement on secondary types (due to gastric, esophageal, pancreatic and biliary surgery), primitive ones (with the entire stomach) are still matter of debate concerning their existence by some authors. During the last years, based upon a strict and appropriate use of diagnostic means (pH-metry, manometry, HIDA scan, endoscopy with multiple biopsies) we noticed an increased incidence of alkaline or mixed reflux esophagitis, either primitive or secondary. Since 1982 we started treating patients with severe forms of secondary alkaline reflux esophagitis, and only recently, encouraged by good results, we started treating primitive forms (with the entire stomach) of alkaline reflux esophagitis. First we used total duodenal diversion (TDD) through a classic Roux-en-Y loop (Holt's technique), then we passed to the "Duodenal Switch" technique (DS) as described by de Ooster, and recently we arrived to use the gastro-esophageal diversion (GED) with inverted loops Roux-en-Y. Inconstant results obtained with the formeres (TDD, DS) forced us toward the use of the latter (GED), which deserves other advantages, being effective and secondary types of alkaline reflux. The video herein shows the GED technique, after a short pathophysiological foreword, illustrating its application in a primitive alkaline reflux gastritis.

R2 limphectomy in the treatment of the early mid gastric carcinoma

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The videotape shows the operation we adopted as a standard for the treatment of the distal and mid early gastric cancer. The gastric resection is subtotal with the proximal resection margin on the lesser curvature 2 or 3 cm distal to the oesophago-gastric junction. The limphectomy is comprehensive of groups 1,3,4,5,6,7,8,9,11 and 12, and its technique is demonstrated in the videotape. Splenectomy is considered unnecessary, considering the minimal incidence of group 10 localizations in the early gastric cancer, and potentially depressing the immunitary response.

Cleaning of the mesenteric artery nodes is also not performed, as it is associated with an high risk of major nutritional disorders, consequent to the denervation. Nerve sparing technique for the preservation of the celiac nerve ganglions during celiac limphectomy is illustrated.

Distal pancreatectomy with splenic conservation for benign tumors

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The techniques of spleen-preserving distal pancreatectomy, though logical in the pediatric patients, recently have been extensively applied in adults. The videotape shows two cases of conservative distal pancreatectomy performed for benign tumors. The first patient a 28 year-old woman, was admitted to our hospital for a large mass of the pancreatic tail found during ultrasonographic exam. CT-scan confirmed the presence of an 8x10 cm tumor. Following left subcostal incision and widely opening of the gastrocolic omentum, the mass is visualized: the tip of the distal part of the pancreas is readily identified and mobilized in the hilum of the spleen, so the dissection may begin at the tip and proceed in a prograde direction. After tumor removal the pancreatic remnant is sutured with interrupted not reabsorbable stitches. Histology shows the tumor to be a cystic and solid papillary neoplasia. The second patient, a 67 year-old woman, was admitted in our hospital for relapsing abdominal colics. Ultrasound and CT-scan showed a small tumor (2 cm) between the body and tail of the pancreas. The abdomen is opened through a bilateral subcostal incision and a generous extent of the gastrocolic omentum is divided between clamps. The tumor is located in the body and does not appear on the surface of the pancreas; then the peritoneum is incised along the inferior border and the posterior surface of the pancreas is exposed by blunt dissection. Silastic loops are placed around the splenic artery and the pancreas. The dissection of the splenic vein progresses from the proximal to the distal part of the pancreas; multiple small branches of the vein are identified and ligated till the splenic hilum. Following pancreas transection and good haemostasis of the stump retrograde dissection of the splenic artery is continued towards the spleen dividing several branches of the artery. At the end of the arterial dissection the body and the tail of the pancreas are completely freed and removed. The pancreatic stump is sutured with interrupted not reabsorbable stitches and covered with viable omentum. The frozen sections show the tumor to be a microcystic adenoma.

Left hepatectomy for giant hemangioma of the liver

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The videotape illustrates the case of a female 59 years old patient, affected by a giant cavernous hepatic hemangioma (30x8 cm) who underwent left hepatectomy. The lesion, almost asymptomatic, filled a big part of the abdominal cavity, its origin from the left liver, but they couldn't define precisely its right limits and particularly the eventual involvement of segments V and VIII. At operation the lesion results to occupy the whole IV segment; the left lobe is also completely involved, segments V and VIII presents diffuse microhemangiomatous alterations. The hepatic peduncle is prepared; left hepatic artery and portal vein are tied and severed, with preservation of the branches of the caudate lobe. The suprahepatic and infrahepatic vena cava are prepared. The left hepatic vein is interrupted and sutured. The hepatic peduncle is clamped. Left hepatectomy with minimal resection of segment V and VIII is performed by digitoclasia without blood loss requiring transfusion.

Hepatic segmentectomy for focal nodular hyperplasia

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Correct diagnosis of nodular lesions of the liver is sometimes difficult or even impossible. A 31 years old woman was hospitalized twice with a growing symptomatic lesion of the right lobe of the liver. Ecography, scanner, RMN and even biopsy were not able to establish a precise diagnosis. The patient was operated and an hepatic bisegmentectomy (VI and VII) has been carried out. The interest of the use of an ultrasonic dissector and argon electrocautery in hepatic resection is shown in the video. Pathologic examination of the specimen confirmed the macroscopic diagnosis of focal nodular hyperplasia. Two years after the operation the patient remains asymptomatic with no imagiologic signs of recurrence.

Prosthetic H-graft portacaval shunt

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The tape shows an operation of an H portacaval shunt, performed by the interposition of a very short segment of prosthesis, in a male cirrhotic patient which presented recurrent bleeding from oesophageal varices, already treated in the past by sclero-

therapy. After a limited isolation the infrahepatic vena cava is partially clamped and an armed 12 mm caliber PTFE graft is anastomosed in a termino-lateral way to its anterior face. The tube is shortened as necessary to joint it without traction or kinking to the posterior face of portal vein (less than 1 cm in this case). After declamping the portal pressure, which was 30 mmHg before, falls to 16 mm. At 14 months after the operation the patient is in good conditions free from bleeding or encephalopathy. The color Doppler duplex scanning shows the patency of the graft and a residual portal flow to the liver. Compared to the classical direct portacaval anastomosis the shunt presented here presents a definite and stable caliber and offers a better technical situation in case of an eventual liver transplantation. Compared to the prosthetic shunt of Sarfeh it presents a lower risk of thrombosis being shorter and more direct so presenting the need to sacrifice the major portal collaterals (left gastric vein, gastroepiploic vein etc.) as described by the original technique to increase the flow through the graft and long term patency.

VIDEO CORNER II

Placement of a single device for adjuvant hepatic arterial infusion chemotherapy after reimplantation of a right aberrant hepatic artery on the left hepatic artery

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Colorectal hepatic metastases are a well accepted indication for liver resection. Unfortunately, only 20-30 % will be cured after surgery alone. The value of adjuvant therapy after "curative" liver resection is not well established: some recent reports seem to suggest the value of hepatic arterial infusion chemotherapy, eventually associated to a systemic one, to prevent recurrence in the liver remnant. The atypical distribution of the vascular tree may complicate the placement of the arterial catheter. The presence of a right hepatic artery arising from the superior mesenteric artery usually requires two port-catheter devices, the first positioned as usual into the gastroduodenal artery for the left hepatic lobe, the second tangentially inserted in the right hepatic artery. This procedure is expensive, it increases the risk of vascular thrombosis besides the possibility of a reflux in the intestinal vessels. In this tape we present an alternative solution with the reconstruction of a "normal" hepatic vascular tree. With this aim, we severed the right hepatic artery arising from the superior mesenteric artery in the retropancreatic site. The proximal stump is tied, the distal one is anastomized in a termino-lateral fashion on the left hepatic artery with interrupted stitches. So we are able to use a single port-catheter device placed in the usual manner into the gastroduodenal artery. Postoperative angio-

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graphy, performed by direct puncture of the porth, shows the perfusion of the hepatic artery, the reconstructed hepatic bifurcation with the right and left hepatic artery and then, in the same time and with the same intensity, of the intrahepatic vascular tree of both hepatic lobes.

Transcatheter arterial embolization 5TAE in hepatohepatic carcinoma (HCC)

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We want to present our experience of 139 transcatheter arterial embolizations in HCC performed in 4 years at the institute of Radiology of Turin. After an angiographical study of celiac trunk and of the upper mesenteric artery, a selective catheterization of the hepatic artery is performed to introduce the cytostatic emulsion (Doxorubicin 20-30 mg) and m.d.c. liposoluble (Lipiodol 6-10 ml) that shows a particular tropism for hypervascularized neoplastic tissues fixing itself almost all on the HCC nodes and so acting as carrier for chemotherapeutic substance. Thus a selective embolization by fibrin foam (Spongostan) is performed in order to add an ischemic effect to the pharmacological one. The 139 patients have been divided into 3 stages according to the Osida classification: 66 stage I, 64 stage II, 9 stage III. The percentages of survival of patients to stage I are 100 % at 3 months, 85 % at 5 months, 59 % at 12 months, 28 % at 24 months, 12 % at 36 months. In stage II 86 % at 3 months, 67 % at 6 months, 49 % at 12 months, 15 % at 24 months, 3 % at 36 months, in stage III 78 % at 3 months, 33 % at 6 months, 33 % at 12 months. According to our experience we have found that surgical therapy, when feasible achieves the best results at medium and short term, but that TAE achieves undoubted results in patients which are no longer operable (therefore in these subjects it has to be applied because the survival and the general conditions improve considerably) good results are also reported using the method before and during the operation, providing the surgeon of useful vascular map and allowing him to operate in excellent conditions in some cases previously considered inoperable. Furthermore TAE has to be applied in patients carriers of HCC proposed for transplantation, because it reduces the speed of increase of the neoplasm during the long time of waiting before the operation.

Spontaneous pneumothorax treated by thoracoscopy

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Spontaneous pneumothorax is a medical condition treated often by simple underwater drainage. Sometimes surgical intervention is necessary. In the 70's a full posterolateral thoracotomy was done. In the 80's an axillary minimal thoracotomy was the most common approach. With the new thoracoscopic techniques a minimally invasive intervention is required. A patient is presented in whom a right axillary operation was done two years earlier for spontaneous pneumothorax. Nowadays, the patient was admitted with a left spontaneous pneumothorax and an atypical lung resection was done, and the patient was discharged two days later.

Surgical treatment in the Crohn's disease stricturoplasty

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In the videotape are discussed some indications about the adoption of stricturoplasties in the Crohn disease therapy. Therefore different methods are illustrated in detail using even some animated cartoons. Different methodologies for ileal and colonic stricturoplasties are shown. In particular the Heineke - Mikulicz's technique, the Judd's technique and the Finney's technique are like the anonymous operations for piloroplasty. Moschel Walske's technique is the same of the one adopted for treating ureteral stenosis. Every technique has some exact indications and allows to treat Crohn's intestinal stenosis saving the most of bowel. **Patients:** from 1984 to 1992 we have performed 82 stricturoplasties on 25 patients. It has respectively been performed a stricturoplasty at the duodenal level, and 63 at the jejunum-ileal level and 2 at the colon. A Mikulicz's plastic has been performed at the duodenum; at the ileum 43 Mikulicz, 16 Judd and 4 Maschel have been performed; in the colon it has been performed one Maschel and one Judd. We have noticed neither complications after the operation nor mortality in all these cases. We have not recorded relapses in the "follow up" (range 2-8 yr.) in the stricturoplasty level. We have reoperated 6 patients (19 %) some years later since the first operation: in 4 cases because of the restarting of the disease in other sites; in 2 other cases it was the appearance of a pseudo-tumor showed up in the recess of the Finney stricturoplasty. Therefore we can consider our experience positively and we believe the conditions that have allowed this success have to be attributed to the correct surgical choice and surgical indications: a good nutritional preparation, disease in a chronic phase, good intestinal preparation, and again correct surgical choice.

Radical resection of a giant advanced ACTH-secreting timic carcinoid

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The patient, a 34-year-old lady is admitted for menstrual irregularity, hirsutism, emotional lability and obesity for about six months. Plasma ACTH and cortisol are elevated. A chest x ray shows a large irregular mass in the left anterior mediastinum. Ct scanning shows the large tumour, measuring 10x15 cm in size with irregular margins surrounding the mediastinal vessels, without signs of infiltration. After median sternotomy careful dissection of pleural reflexion and soft retrosternal tissue is performed. For a better check of vessel connections the pericardium is opened. The next step is freeing the mass from perivascular tissue after ligation and section of fibrous connections. The mass lies behind the left innominate vein that is sectioned between clamps. The tumour invades the proximal segment of the vein that must then be resected. The stumps are secured by non reabsorbable monofilament suture. The mass is freed from the innominate artery, left common carotid artery and left subclavian artery which are adherent but not invaded by the tumour. Instead the invaded vags nerve is ligated and resected. After blunt dissection from the posterior layer the mass is excised with a large portion of left mediastinal pleural reflexion that appeared to be invaded. The last view of the surgical field shows the aortic arch with the supraortic arteries completely freed and the lung. A no 28 chest tube in the mediastinum and a separate pleural drainage are positioned. Microscopic examination of the tumour shows a timic carcinoid with prominent vascular and perineural invasion. No other therapy is performed and the patient is free of disease four months after surgery.

Recto - duplication

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The videotape presents two clinical cases of patients affected with recto-duplication. The clinical interest is not only the rarity of this pathology but the whole of clinical relevant problems which reach from the identification of lesion to her anatomical definition and problem of surgical therapy. After explaining the embryological origin of duplication, we report for every case the radiological and clinical documentation, that allows the correct diagnosis. Then we explain the operation of exeresis of duplication, that's different in two patients for some technical details requested by seat and mass of malformation, and by necessity of to restore the layer of elevator muscles, in one patient.

Eversion endarterectomy and reimplantation of the internal carotid artery for proximal stenosis and distal kinking

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A 70-year-old male patient presented a left TIA and therefore he was studied with echo-color Doppler and digital subtraction angiography which showed a high grade stenosis and distal kinking of the left internal carotid artery (ICA). So, the patient underwent the surgical correction of these lesions which required an extensive dissection of the hypoglossus nerve, very close to base of the cranium, and of carotid arteries, with the cutting of the dygastric muscle. After intravenous heparinization, and common-external carotid clamping, the back pressure was 70 mmHg. The good tolerance to carotid occlusion was confirmed by a continuous monitoring of SEPPs during the whole procedure. Firstly, an eversion endarterectomy of ICA was performed through the transverse transection of its origin at the bifurcation. The arteriotomy was prolonged longitudinally towards the distal common carotid artery (CCA) along the lateral margin of the vessel at the aim to make a new proximal end for ICA. Therefore, after the completion of the eversion endarterectomy of the ICA, the native origin of the ICA was closed by continuous suture and the artery was reimplanted more proximally on the CCA arteriotomy to suppress the distal kinking. Immediate Doppler spectral analysis and post-operative angiography demonstrate the good morphological and functional result of the reconstruction.

Embolization and resection of carotid body tumor

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A 29 years old woman presented a right latero-cervical mass and therefore she underwent MRI of the neck which showed a right oval carotid body tumor, sized 3.8 cm with cranial end near to the body of the 2nd cervical vertebra. Tumor was vascularized by collateral vessels of the right carotid arteries and the internal carotid artery was laterally dislocated

and coiled. To recode the tumor vascularization, during a digital subtraction angiography, the selective embolization was performed in the nutritive vessels originating from the external carotid artery. The day after, the patient undergoes operation. The access is a longitudinal laterocervical incision. Firstly the lateral surface of the carotid body tumor is exposed, and proximally the common carotid artery is dissected and surrounded with vessel-loop. A careful dissection of vagus and hypoglossus nerves and of the distal internal and external carotid arteries and the accurate dissection of the external surface of the tumor are completed, first along the cervical and then in the subavventitial plane detected just proximally to the carotid bifurcation. Hemostasis is achieved with coagulation or division between suture of the nutritive vessels, and so en-bloc resection of the body tumor is performed. Hystological study shows a capsulated alveolar paraganglioma with jalinoid perivascular sclerosis and the patient is disease free two years after operation.

PANEL ABSTRACTS

Esophagectomy for cancer: Videothoracoscopic approach

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Increasing experience in minimally-invasive surgery of the esophagus prompted us to perform thoracoscopic esophageal dissection during esophagectomy for cancer. Since January 1991, thoracoscopic esophagectomy was attempted in 16 patients with T1-T2 tumor at risk for thoracotomy otherwise candidate to transhiatal esophagectomy. After dividing the azygos vein by means of an ENDO-GIA or ENDO-TA stapler (5TM), the esophagus was mobilized together with the periesophageal mediastinal tissue and with periesophageal, paratracheal and subcarinal lymphnodes; it was then divided at its upper third with an ENDO-GIA (TM) in order to ease dissection. The procedure was completed through laparotomy and cervicotomy. No operative mortality was recorded. Average duration of the thoracoscopic procedure was 125 min. Postoperative complications occurred in 3 patients (2 bleeding and 1 mycobacterial pneumonia). Two patients showed tumour recurrence at 6 and 18 months. Thoracoscopic esophagectomy reduces postoperative pain but requires longer selective lung exclusion compared to thoracotomy; therefore, postoperative pulmonary function requires further evaluation. Dissection of the esophagus under direct vision allows lower morbidity compared to blunt transhiatal esophagectomy. Presently, in our opinion, thoracoscopic mobilization of the esophagus is indicated in high risk patients with subcarinal T1-T3 tumors. The extent of lymphadenectomy is under evaluation through macroscopic and pathological sampling.

Laparoscopic hernia repair of 415 cases using the "Dudai Butterfly" with or without mesh according to hernia type

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The purpose of this study is to demonstrate that groin hernias of different types can be managed by an adjusted surgical approach. Because small hernias (Nyhuss classification Type I+II) are marked by a minor defect in the internal ring with normal pelvic floor strength and normal shutter mechanism of the inguinal canal, we choose to use the laparoscopic versus the anterior approach thereby not damaging the intact abdominal wall. We use a small Laparoscopic procedure for those small Hernias. The hernia sac is inverted, the peritoneum is opened and dissected behind the internal ring. A tension free closure of the defect is achieved by using the Dudai Butterfly (DB). Because big hernias (Type III and IV) are marked not only by a large defect but also by pelvic floor weakness, we demanded a big Laparoscopic repair of two layer. The first layer is a DB placed in the defect. The second layer is a wide mesh covering the pelvic floor. The sac undergoes "ring excision" as appropriate. Wide dissection of the pelvic floor and division of inferior epigastric vessels resulting in wide free margins of the hernia defect. Wide deperitonealization of the lower flap from the cord and the blood vessels. Closure of the defect by DB and closing of the pelvic floor using mesh affixed with staples excluding the "Neurovascular triangle". The use of the DB provides for tension free closure and support of the defect resulting in reducing the chance of recurrence. The placement of the DB is achieved with ease. DB also stimulates growth of fibroblasts. The subsequent placement of mesh gives additional strength to the entire pelvic floor by receiving homogenous support from the entire area including the hernia defect closed by the DB. Results: Total of hernia repair 415, No. of patients 306, Bil. Hernia 109, Hernia Types I:12, II:116, III:242, IV:45, Post. op. Narcotics 0, Post. op. Analgetics 234, Post. op. stay 1.09 days, full recovery 3.8 days, Subcut. Hematoma 9, Wound Infection 1, Entrapment of LFCN 1, Bladder Injury 1, Recurrence 3 (0.7 %). All our complications occurred in the first 50 cases. We conclude that we adjust the Laparoscopic repair to the Hernia type. Large hernias require a large laparoscopic repair which is superior to the anterior approach. We suggest to consider for the repair of small hernias a small laparoscopic repair which does not affect the integrity of the anterior abdominal wall.

Laparoscopic Vagotomy in 38 cases, 30 month follow up. Comparing of posterior truncal anterior highly selective to complete highly selective vagotomy

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Before the laparoscopic (lap) era we performed highly selective posterior and anterior vagotomies (HSV). With the introduction of laparoscopy we performed Lap posterior Truncal Anterior HSV (LpTaHSV) according to Zucker and Bailey. Our first 10 operations were successfully performed according to the LpTaHSV technique. With experience our lap technique improved. Initial operation time was 4 hours, the duration of the later operations was approximately 2 hours. No significant complications were encountered. Patients were discharged 3-4 days following surgery and were fully recovered 6 days later. Following surgery a 72 % reduction in acid output was observed. Endoscopy six weeks later revealed complete ulcer healing in all instances. 5/10 patients reported mild to moderate symptoms of delayed gastric emptying which improved with time. One other patient had severe symptoms of delayed gastric emptying unresponsive to repeated balloon dilatations of the pylorus and ultimately required pyloroplasty. Because of these complications we tempted to perform Lap. HSV (LHSV) according to the technique used by us in open operations. We successfully operated our following 28 patients according to LHSV, in a 6 step technique developed by us. Operation time for LHSV is a 1/4 hour longer then for LpTaHSV, app. 2 1/4 hours. No significant complications were encountered. Some analgesics were required postoperatively. Patients were discharged from the hospital 2-3 days after surgery. There were no complaints of postmeal epigastric fullness, delayed gastric emptying and diarrhea. Acid output following surgery reduced by 81 % and at endoscopy six weeks later all ulcers had healed. In 30 month follow up all the patients keep doing well except one patient from the LpTaHSV group that recurre. In conclusion A) It is feasible to perform LHSV. B) In our experience this procedure appears superior to LpTaHSV and probably also to open HSV. C) We suggest to consider LHSV as the treatment of choice of patients with chronic duodenal ulcer disease as an alternative to chronic H2 receptor antagonist therapy taking into consideration cost, side effects, effectiveness and compliance.

Prospective study of laparoscopic proximal gastric vagotomy

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Patients: Between April, 1992 and December, 1993, 55 consecutive patients, 45 males and 10 females, median age 39 years (range 19-65) underwent proximal gastric vagotomy (PGV) without pyloroplasty, by strictly laparoscopic means. All patients were ASA I or II. Two patients had had previous gastric surgery (one pyloroplasty and one raphy of a perforated ulcer). Ten others had had lower abdominal procedures. Fourty three patients were operated on electively, because of chronic ulcer disease (CUD) (n=30) or because of gastroesophageal reflux disease (GERD, n=13) associated with CUD. Twelve patients were operated in emergency for perforated ulcer. Thirty one patients underwent Nissen fundoplication during the same procedure; 12 patients underwent associated gastric ulcer repair and a cholecystectomy. Method: The procedure consisted of selective severance of all neurovascular bundles originating from Latarjet's nerve and going to the lesser gastric curvature, cephalad of the crow's foot, care being taken not to injure the main trunk. Dissection included the last 8 cm of esophagus in all cases. Results: One major postoperative complication (lesser curve necrosis) required a second look laparotomy on the ninth postoperative day. Operative time was on average 172 minutes (range 90-270). Postoperative stay was 2 days in the elective group and 7 days in the emergency group. This difference was caused by the IV antibiotic therapy and prolonged gastric suction in the perforated ulcer at the lesser curvature, probably also due to lesser curve ischaemia. Seven patients were staged as Visick III, because of epigastric pain (n=2), gas bloating (n=3), heartburn (n=1), or diarrhea (n=1). There were no gastroscopically proven recurrences of duodenal ulceration. Conclusion: Laparoscopic PGV is feasible and carries a low morbidity. It can systematically be associated with the laparoscopic treatment of perforated ulcer. Complications on long term are the same as known for PGV, particularly if associated at fundoplication.

Laparoscopic assisted sigmoid resection for malignant disease

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Laparoscopic assisted colon resections for colorectal diseases had recently developed thanks to the success of laparoscopic cholecystectomy. The video shows a laparoscopic assisted sigmoid resection for an adenocarcinoma located at 15 centimeters from the anal marge. After identification, ligature and section of the sigmoid vessels, the bowel was divided 4

to 5 centimeters distal to the lesion with an Endo GIA stapling device. A 5 centimeters right-lower transverse incision was made for bowel extraction and introduction of the stapler envil. After reinstauration of pneumoperitoneum, the colorectal continuity was restaured by a Knight-Griffen procedure performed transanally. Postoperative course was uneventful and the patient was dismissed on 7th postoperative day. We apply this procedure for colorectal cancers non protruding the serosa or as a palliative procedure in non resectable metastatic disease.

Laparoscopic totally preperitoneal inguinal hernioplasty

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The entirely preperitoneal approach for laparoscopic inguinal hernioplasty (TPP) is getting wide acceptance. This video demonstrates the operative strategy, with successive dissection of Coopers ligament, the epigastric vessels and the psoas muscle. finally, the hernia sac is dissected with bimanual technique. The sac is transected and not ligated. A 10 by 15 cm polyester mesh strengthened by a radiopaque Nitinol frame is then inserted and placed over the three potential hernia orifices. The prosthesis is not stapled. Between 1.5.1993 and 1.8.1993, 31 hernias in 21 patients were treated with this technique. All the hernias were primary. The mean age was 48 years. There were 20 males and 1 female. Fifteen hernias were indirect, 2 were pantaloon hernias, 13 were direct and 1 was femoral. Mean operating time was 35k minutes per hernia. The mean postoperative stay was 1 day. Postoperative analgesia could simply be assured with paracetamol. Postoperative analgesia could simply be assured with paracetamol. Postoperative working incapacity was 4 days on average for independent and 4 weeks for salaried people. There was no morbidity nor mortality. More specifically, there were neither neuralgias nor postoperative obstructions. No recurrences were recorded except in the very first patient where postoperative X ray revealed erroneous too medial a placement of the prosthesis, followed by recurrent indirect hernia. In conclusion, this method appears promising by its relative ease and by the fewer postoperative complications as compared to the transabdominal laparoscopic hernioplasty (TAPP) and is now our preferred one, despite our extensive experience (>300 cases) with TAPP.

Lung cancer in high risk patients conservative treatment with V.A.T.S.

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During the period March-91 to March-94, six patients having lung cancer were operated on by video assisted thoracoscopic surgery (VATS) (over 69 operations for lung cancer) at the Durand General Hospital, Bs. As., Argentina. Two lobectomies and four segmentectomies were made by this method, in patients having moderate to severe respiratory incapacity. Owing to that, the proceedings were all conservative. In five of the six cases it was necessary to widen one of the hales (up to 5 cm) in order to take off the specimer. All the patients had a good postoperative course, with scarce or absent pain. There was a localized posoperative ampiema in one case, which healed by punction. Internation average was of 5 days. We considerate that V.A.T.S. may be an excellert proceeding in those patients having functional respiratory results con traindicating conventional thoracic surgery.

Visual laser ablation of the prostate

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Transurethral resection (TUR) is the most widely used method in the surgical treatment of benign prostate hyperplasia (BPH) especially for those less than 60 grams. However 18% morbidity rate of TUR have been observed in well documented studies. Transurethral laser ablation of the prostate (TULAP) have been suggested as an alternative procedure in order to decrease the high morbidity rate of TUR. In our study, efficacy of TULAP was investigated in 18 patients with BPH by using Nd: YAG (1060 nm wave) and ultraline probe with lateral out-put. All patients whose age range between 44 and 80 (mean age: 65.5 ± 8.06) were evaluated by American Urologic Association (AUA) symptom score, uroflowmetry, prostate volume by measuring transrectal ultrasonography and prostate specific antigen density, pre-operatively and by AUA symptom score, uroflowmetry in postoperative 3rd 6th weeks and 3rd month as shown in the table. During this procedure local anesthesia was used in nine patients and general anesthesia in the remaining nine. Mean follow up period is 6.16 ± 3.86 (2-12) weeks of this still ongoing study and all patients will have been definitely evaluated at the end of 3rd month postoperatively.

	Preoperative range (avg.)	Postoperative range (avg.)
AUA smptom score	5-13 (10.69 ± 2.35)	2-9 (5.22 ± 2.29)
Uroflowmetry		9-20 (14.38 ± 7.7)
maximum flow	0-16 (6.29 ± 5.15)	5-12 (8.28 ± 2.33)
average flow	0-11 (3.78 ± 3.12)	

Transurethral "Sidefiring" laser application using endocamera in BPH

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There are some alternative treatment modalities in the surgical management of BPH. Recently some different instruments are being used in the transurethral laser treatment of BPH. In our cases we used "Sidefiring" type ultraline laser probe. Volume of the prostate (≤ 50 gr) was another important selection criteria in our study group. Number of the patients was limited because of our initial experience in this field and observation of our effectivity in the beginning. All of the patients were treated with the help of endocamera together with suprapubic cystofix application. Depending on the volume of the prostate 20.000-69.000

joule energy was applied with Nd-YAG laser. Our results indicated that transurethral "Sidefiring" laser application under the guide of endocamera gives the opportunity of wider insight which consequently results in lower bleeding incidence and shorter operation time. Hence we believe that this new treatment modality may be an efficient alternative in the surgical management of BPH. However, larger number of patients are needed to observe the possible early and late complications of the procedure.

The use of a second generation removable stent (Prostacoil) in prostatic obstructions

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During the last decade various intraurethral stenting devices entered the urologic armamentarium, taking the place of indwelling catheters. Because of the migration and occlusion of the fixed and narrow caliber first generation stents, large caliber, self-expanding either permanent or temporary stents were developed for use in prostatic obstructions. The video describes the use of the ProstaCoil which is a self-expanding and self-retaining, long term but removable stent and the results obtained with more than 100 patients.

Treatment of recurring strictures along the urethra using a new temporary coil stent: urocoil, urocoil-s, urocoil-Twin

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A new self-expanding and self-retaining long-term but temporary stent was inserted to patients who had recurrent strictures necessitating frequent dilatation and/or urethrotomy. Strictures of 0.5 to 11 cm in various parts of the urethra were treated with this device which comes in 3 different configurations for use in strictures in different localizations:

UroCoil: in post-bulbar strictures as distal as the urethral meatus;

UroCoil-s: in bulbomembranous strictures;

UroCoil-Twin: in the combined strictures of the prostatic and bulbomembranous urethra.

This device holds the stenosed part of the urethra open for long periods, allowing complete healing of the incised stricture without becoming incorporated into the urethral wall even after 12 months. After this period they can be removed without surgery using simple manipulations. The video describes the use of these stents and the results obtained with 75 patients after removal of the stent with more than 1 year mean follow-up.

Incision venous patch technique in some rare type of Peyronie's disease

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Peyronie's disease (induratio penis plastica) is caused by fibrosis of the tunica albuginea and is characterized by penile curvature, dispareunia and lump formation at the side of induration. The incidence of Peyronie's disease is 1% among general population but only a few of them require surgical treatment for penile curvature. On the other hand 10% of the patients with penile deformity shows spontaneous regression. The direction of the deviation is usually to the dorsal side, to the right/left side or toward combination of the previously mentioned directions. Penile vascular system of six patients, who have ventral penile curvature (n:1), dorsal penile curvature (n:3) and hour-glass deformity (n:2), were evaluated functionally by color Doppler ultrasonography. Four patients with normal penile vascular system underwent Incision Venous Patch -IVP- procedure. The other two impotent patients, with dorsal penile curvature, implantation of penile prosthesis was combined with this technique. In four patients with dorsal or ventral penile curvature deep dorsal vein and in two patients with hour-glass deformity deep dorsal vein and saphenous vein was used as a venous patch after incision of the plaque. On the follow-up (9-11 months, mean 10.20 ± 0.74 months) complete success were achieved functionally and anatomically in the patients who had IVP procedure. In the remaining two patients penile deformity was corrected completely by the combined techniques.

Treatment of penile curvature in children using the incisional corporoplasty

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Many children with congenital penile curvature without hypospadias are seen in our "Penile Deformation Clinic". After obtaining excellent results with the surgical technique modified by the senior author in adult cases, this technique was used for straightening pediatric penile curvatures. Differing from the classical Nesbit Corporoplasty, this technique is based on the Heineke-Mikulicz principle in which longitudinal incisions are done to the tunica albuginea of the corpora cavernosa and then closed horizontally for shortening the convex part of the curvature. In this technique since no parts of the tunica albuginea are removed no mobilization of the corpus spongiosum or the neurovascular bundle is needed. The danger of injury to these structures is minimal even when working on a penis of a small child. This technique was used in 16 children aged 3-9 during the last 2 years with results as satisfactory as in adults. The video describes the surgical technique step-by-step.

Our practice in Mentor Inflatable Mark II penile prosthesis implantation

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Surgical treatment of erectile impotence was advanced significantly by the inflatable penile prosthesis introduced in 1973. Since then, there have been numerous report on refinements in device design, surgical implantation technique and over-all success in terms of patients satisfaction and device mechanics. The inflatable penile prosthesis has the advantage of a normal appearing penis in both the erect and flaccid state that under complete patient control. Herein, we presented our experience with the implantation technique for the Mentor Inflatable Mark II Penile Prosthesis and emphasised the key points regarding the surgical technique resulting from the extensive clinical trials and the authors' personal observation. Because the mentor Mark II inflatable penile prosthesis does not have an abdominal reservoir and there is no need to cut tubing or place connectors because these implants come preassembled and sterile, it provides a particularly attractive alternative to the three-component prosthesis.

Subureteral polytetrafluoroethylene injection in the treatment of vesicoureteral reflux

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Between May 1991 and April 1994, sixty two patients vesicoureteral reflux were treated by subureteral polytetrafluoroethylene injection technique in our institution. Out of 62, 46 patients with adequate follow-up data and period were included in this study. There were 29 female and 17 male patients. Mean age at operation was 6 years. Unilateral and bilateral reflux existed in 24 and 22 patients respectively. Of the 68 refluxing unit, 61 were dilating reflux. Associated disorders or anomalies were encountered in more than 50 % of the patients. These were bladder cancer in 1, diabetes insipidus in 1, horse shoe kidney in 1, dysfunctional voiding syndrome in 9, meningomyelocele in 5, neurogenic bladder due to spinal cord tumor in 1, posterior urethral valve in 3, complete ureteral duplication in 1, and sacral agenesis with neurogenic bladder in 1 patient. Nine patients had end stage renal disease awaiting renal transplantation. Two patients had already undergone renal transplantation. Other 5 patients had a history of 2 more previous unsuccessful open antireflux interventions. Average follow-up period was 12.6 months. Increase upper tract dilatation was observed in 1 patient. However it resolved spontaneously in a week.

No deterioration in renal functions was observed. Average hospitalisation period was 1.6 days postoperatively. Symptomatic urinary tract infection was seen in 60 % of the patients before injection, despite antibiotic prophylaxis. However, this figure was 22 % postoperatively, with cessation of antibiotic prophylaxis within 3 months after surgery. Relapse of vesicoureteral reflux was observed in 22 % of the patients. This relapse rate is significantly high comparing with the results of the studies on open surgical correction of primary vesicoureteral reflux. High presence of predisposing conditions to vesicoureteral reflux, and history of previous unsuccessful surgery in our series, should be taken into consideration. Open surgical techniques also carry high complication rates in secondary vesicoureteral reflux. Subureteral injection of polytetrafluoroethylene is a good alternative in the treatment of vesicoureteral reflux particularly in the presence of predisposing factors and in renal transplantation candidates having reflux, with its minimal invasiveness, and its reproducibility.

Incisionless 4-point suspension of the bladder neck and urethra for urethral incompetence

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Cases of urethral incompetence, which is the result of intrinsic sphincter dysfunction alone or in combination with urethral hypermobility cannot be treated successfully by bladder-neck suspension which restores the anatomic position of the bladder-neck. These cases can be treated by increasing the coaptation of the urethra and also by increasing the sphincteric function, using surgery which elevates and supports the proximal two-thirds of the urethra and the bladder-neck. This can be obtained by sling operations using synthetic or autologous materials. Encouraged by the satisfactory results obtained with our "Incisionless Bladder-Neck Suspension with Balanced Tension Sutures", a procedure based on this technique, using 4 non-absorbable elastic suspension sutures was used in 16 patients with urethral incompetence. With a follow-up of 6-18 months (mean 10 months) only 1 case showed a partial recurrence. The video describes this easy to perform procedure.

FORUM 2

Free intestinal graft for urethral reconstruction

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A 18-year-old boy presented multiple lacerations involving perineum and genitalia, urethral avulsion, partial loss of penis and total loss of scrotum and testis. The patient voided through a perineal urethrostomy.

Recipient vessels for a microsurgical transfer were not locally available. On a first operative time an arteriovenous fistula was created between femoral vessels by means of a long saphenous vein loop. Ten days after a segment of jejunum for urethral reconstruction was transferred to the new recipient vessels which were the result from the saphenous loop graft section and were located in the inguinal area. At the same operative time the penis and the perineum were reconstructed with a musculo-cutaneous gracilis graft. Six years after urethral reconstruction the penile aesthetic result is acceptable and the skin correspondant to the gracilis flap is sensible. The patient voids well.

FORUM 3

Pain after laparoscopic cholecystectomy effect of local anesthesia

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Although postoperative pain in laparoscopic cholecystectomy (LC) seen much less than open surgery it increases postoperative morbidity and complications. The aim of our study whether local anaesthetic infiltration could decrease postoperative pain so decrease morbidity. 50 patients undergoing LC randomized to receive either local anesthetic (bupivacaine) infiltration and 0.9% NaCl infiltration. 25 patients received 3 ml 0.5% bupivacaine infiltration to the port sites at the time of desufflation. The other 25 received 0.9% NaCl to the same sites. In the postoperative period intensity of pain was measured by "0-10 Numeric Pain Distress Scale". In the 1.-3.-5.-7.-12. hours patients were asked to record or tell their pain intensity. Meperidine HCl 1 mg/kg im. were given to the patients whose pain intensity greater than 5. The number of doses were recorded and pain scores and doses between groups compared with student T test. In the 1. postoperative hour only 7 patients required analgesia while in control group 19 patients required analgesia. As the scores compared patients felt lower pain intensity in the 1. and 3rd hours so they required lower analgesia than control group patients. As the pain in LC localized in trocar wound sites local infiltration anesthesia decreases this pain in the early postoperative period.

Laparoscopic cholecystectomy during pregnancy

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Laparoscopic cholecystectomy has proven to be superior to open cholecystectomy. The patients experience less pain, fewer incisional problems, no or shorter ileus and shorter hospital stay. Pregnancy

was considered as a contraindication for laparoscopic cholecystectomy in the beginning of the experience. The authors present two cases of laparoscopic cholecystectomy in pregnant women, 15 and 30 weeks of gestation, with symptomatic gallbladder stones. No complications with the mother or the foetus occurred, and patients had a quick postoperative recovery. One patient has now a healthy baby and one is still pregnant at this moment. This procedure can be safely accomplished during pregnancy, and should be the procedure of choice if conservative management fails.

Laparoscopic cholecystectomy in the presence of cardiopulmonary disease

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From November 1992 to April 1994 (18 months) we performed laparoscopic cholecystectomy in 55 patients with symptomatic cholelithiasis associated with cardiac or pulmonary disease at the General Surgery Department of Uludağ University Medical Faculty. Median age was 56 (42-82) 24 patients were with hypertension, 18 were compensated cardiac failure, one of previous myocardial infarction, one of mitral valve disease, seven chronic obstructive pulmonary disease (two patients had more than one associated disease), one patient underwent open heart operation (postoperative fifteen day). Patients with pulmonary disease preoperatively evaluated with pulmonary function tests and intraoperatively managed according to the measurements of arterial blood gas levels and end-tidal CO₂ values. Patients with clinical evidence of cardiac disease preoperatively evaluated by a cardiologist. We performed successful laparoscopic cholecystectomy in our patient with dose intraoperative monitoring and observation of hypercarbia and rapid treatment of arrhythmia, bradycardia and hypertension based on hypercarbia. As an intraoperative complication of hypercarbia hypertension was seen in 25 patients, ventricular arrhythmia in three, tachycardia in four, bradycardia in one, hypotension in one. At early postoperative period hypertension developed in two patients and subendocardial ischemia in one, bradycardia in one. Mortality did not occur. When hypercarbia occur intraoperatively, the pneumoperitoneum should be evacuated rapidly, appropriate medication administered and then the pneumoperitoneum slowly reestablished after stabilization. As a conclusion, patients with associated cardiopulmonary disease should be evaluated by a cardiologist, anesthesiologist, pneumologist and if there is no contraindication for general anesthesia, laparoscopic cholecystectomy could be performed safely.

Reasons for conversion to laparotomy during laparoscopic cholecystectomy

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Between August 1992 and January 1994, 146 laparoscopic cholecystectomies were performed in General Surgery Department of Marmara University Hospital. Conversion to laparotomy was required in 15 (10.3%) cases. There were 15 patients comprised seven men and eight women of mean age of 56.5. In nine patients adhesions and unclear anatomy, in three patients cholecystitis, in one patient "pack of stone" gall bladder, in one patient pneumothorax and in one patient uncontrolled hemorrhage at trocar site were the indications for conversion to open procedure. Neither intraabdominal hemorrhage nor common bile duct injury were among indications. Prior to operation ultrasonographic examination of all acute cholecystitis cases revealed distended gallbladder with oedematous thick wall. And of chronic diseased cases revealed thick gall bladder wall in five cases, contracted gall bladder in one case and "pack of stone" gallbladder in one case. General indications for conversion to an open procedure in laparoscopic cholecystectomy are frequently adhesions, unclear anatomy and increased gall bladder wall thickness due to cholecystitis. Most of these situations can be detected by abdominal ultrasonography prior to operation.

Haemorrhage during laparoscopic cholecystectomy and management

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Since 1990, 230 cases had been operated for laparoscopic cholecystectomy. 13 cases for empyema, 34 cases for acute cholecystitis, 2 cases for gall bladder ruptures, 10 cases for hydropas (2 of them with impacted cystic duct big stone) 12 cases with bile duct stones (ERCP with stones removal was previously done) mild Hge. was due to many causes as abdominal wall vessels laceration with trocars, trauma of omentum, liver bed or abdominal wall by different instruments or diathermy. Massive Hge. was due to trauma or improper clamping of cystic artery specially in abnormal gall bladder vascularisation. 4 cases were diverted to open surgery. 2 uncontrolled Hge. of cystic artery, 1 with massive bleeding of liver bed in cirrotic patient and 1 due to dysfunction of the camera. Of course, these 4 cases were included in the first 40 cases.

Complications of laparoscopic cholecystectomy treated by CT-guided percutaneous drainage

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Laparoscopic cholecystectomy is the modern alternative to conventional surgery. Advantages of this procedure include: shorter hospitalization, quicker recovery, minimal scar and reduced expenditure. The overall complication rate after laparoscopic cholecystectomy is lower than in conventional surgery. Reported complications include: 1. Intrahepatic or extrahepatic bile duct injury, bile leak and possible biloma or bile ascities, 2. Intra-abdominal bleeding, 3. Liver gall bladder and bowel laceration, 4. Intra-abdominal infection: primary abscess, infected biloma or hematoma. This procedure has been performed in Soroka Medical Center for the past three years. 13 patients with loculated abdominal fluid collection (abscess, biloma, infected hematoma) were detected by ultrasound or computed tomography studies. All these patients were treated successfully by CT-guided percutaneous procedure.

Complications in laparoscopic cholecystectomy

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Since the first successful laparoscopic cholecystectomy done by Moret 1987, the procedure gain wide popularity and become in six years the procedure of choice for cholecystectomy. The new procedure is not, however without problems, in particular the apparent increase in damage to extra hepatic biliary system, retained CBD stones, visceral and vascular injuries. Reviewing 333 cases in KFSH-Burajdah and comparing it with the results in the world literature, suggested that complications of the new procedure are related to lack of experience on the side of surgeons excessive use of thermal agents during the procedure, non availability of laparoscopic diagnostic and therapeutic facilities for CBD stone management at the beginning of laparoscopic era. The majority of retained CBD-stones are diagnosed and treated by ERCP and papillotomy, while visceral and vascular injuries caused by verres needle and trocar can be avoided by experience, using shielded trocars and the readiness to change to open pneumoperitoneum (Hasson-technique). Bile duct injury is the most feared and serious complication of the new procedure. Reviewing the available videotapes, pathology and management of the original operation retrospectively proved that immediate or early detection of bile duct disruption and its management by Roux-Y hepatico jejunostomy is the treatment of choice in this

complication. The most critical concern rose by this study is the prevention. Proper training of surgeons, liberal conversion to open cholecystectomy whenever difficulties arise, proper technique of dissection of calots triangle, using caution by interpreting cholangiograms, never using cautery or clips blindly and making use of new visual facilities will decrease the incidence of complications in laparoscopic cholecystectomy.

Pulmonary embolism and laparoscopic surgery

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Intraoperative venous stasis may increase the risk for preoperative deep vein thrombosis and pulmonary embolism. The examination of femoral veins suggest, that abdominal insufflation causes venous stasis during laparoscopic cholecystectomies. 15 patients undergoing pulmonary perfusion scintigraphy pre-and postoperatively were analysed to determine if abdominal insufflation during laparoscopic cholecystectomy causes pulmonary embolism. All analysis was performed with Single Photon Emission Computed Tomography (SPECT) in Nuclear Medicine Clinic of İstanbul Okmeydanı Hospital. Pulmonary scintigraphy was normal in 8 cases (53.3 %) and the presence of pulmonary embolism was highly probable in 6 cases (40 %) and lowly probable in 1 cases (6.6 %). All cases were asymptomatic only one case had a deep vein thrombosis which was shown by duplex scanner. The same patient had a low probability scintigraphy for presence of pulmonary embolism. Of 750 cases which were operated laparoscopic in the years 1990-1994 in Okmeydanı Hospital, we have only 1 case of pulmonary embolism which was treated with anticoagulants successfully. The early results of these study show that the rate of asymptomatic pulmonary embolism in patients after laparoscopic cholecystectomy is high. Laparoscopic cholecystectomy may increase the risk of pulmonary embolism. Measures shown to reduce intraoperative venous stasis, such as pneumatic compressive stockings may benefit patients undergoing these procedures.

FORUM 4

Laparoscopic nephrectomy

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The authors demonstrate a laparoscopic left nephrectomy. A 23-year old woman with a chronic ureteropelvic junction obstruction and frequent infections, resulting in a non-functional left kidney, is operated. An embolisation of the left renal artery is performed the day prior to the operation. The position is an incomplete right lateral decubitus with a pillow. Four trocars are placed, one umbilical, one in the anterior axillary line and two in the midclavicular line. First the

left colon is mobilised, then the ureter is isolated. The lower pole and hilus of the kidney are dissected. The renal vessels are ligated and cut. Finally, after the ureter is secured and divided, the upper pole is freed, saving the adrenal gland. The organ is removed after placing it in a bag. Patient recovered wonderfully, and left hospital on the 14th postoperative day.

Retroperitoneoscopic nephrectomy

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Retroperitoneoscopic nephrectomy is a recently introduced technique which avoids the undesired effects of pneumoperitoneum and transperitoneal approach. In this video we are presenting two cases of laparoscopic nephrectomy using retroperitoneal approach both patients were female and had a diagnosis of hypoplastic kidney. PDB Balloon Distension System was inserted of the incising the skin, muscles and the Gerota fascia with the patients under general anaesthesia in a lateral decubitus position. Following the balloon distension, a blunt up trocar was placed through this incision for the laparoscopic. Two additional 5 mm ports were placed. The ureter was identified and dissected proximally to the renal hilus. Kidney was dissected from perinephritic tissue. The ureter clipped and cut. Hilar vessels were ligated in the first case and clipped in the second case. The artery and then the veins were divided. The kidney was mobilised from the remaining attachments and removed from the retroperitoneum through the enlarged 10 mm thoracic site. Laparoscopy is a minimally invasive surgical technique that has had a significant impact on urological surgery we believe that with requirements in technique and instrumentation it may eventually be applied widely.

Laparoscopic marsupialization of simple renal cysts: a definitive solution

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In the last year a total of 5 patients with simple renal cysts refractory to aspiration and sclerotherapy underwent transperitoneal laparoscopic exploration and marsupialization in our department. The average patient age was 40 (22-55) and there were 3 males and 2 females. In the last two patients a specially designed ultrasonic probe was used to identify the cyst before incising the posterior peritoneum. Patient in the lateral decubitus position the cyst were first punctured under laparoscopic control and then the cyst wall was excised circumferentially. The average operative duration was 40 min. There were no intra- or postoperative complications and all patients were

discharged the following day. The video delineates the operative details of this effective method in the treatment of symptomatic, large and otherwise treatment-refractory renal cysts.

The rationale of laparoscopic staging lymphadenectomy in prostatic cancer

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A total of 6 patients (age 60-66) with bioptically proven adenocarcinoma of the prostate underwent transperitoneal laparoscopic staging lymphadenectomy. The selection criteria were PSA 20 ng/dl, Gleason score 5 stage B1 disease, 3 had B2 and 1 patient had clinical stage C disease. A modified technique was used starting on the side of maximum tumor burden palpated. Frozen section showed positive nodes on 2 patients and the procedure was stopped. In the remaining 4 patients with negative nodes radical retropubic prostatectomy was performed in 2 in the same session. 1 patient with stage C disease and another one with spinal deformity preventing proper positioning for open operation received radiation. The average operative time was 2 hours, no intra- or postoperative complications were observed. Avg. hospital stay was 2 days. We believe that laparoscopic staging lymphadenectomy should be preserved to all patients with a minimum chance of 40 % of having positive nodes. Video shows the technical details.

Sutureless intestinal anastomosis in urologic surgery

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Urological procedures using parts of the gastrointestinal tract for performing a diversion or a bladder substitution are time consuming procedures. During the last year we used a biofragmentable anastomosis ring (BAR) to perform ileo-ileal, colo-colic and colo-sigmoid anastomoses. The anastomoses obtained with the BAR were functional end-to-end, completely inverted ones allowing us to give liquid diet 4-5 days after the surgery when bowel peristalsis started. The devices fragmented within 2-3 weeks and passed out in the stool. This passage was followed radiographically. Creating the anastomosis with this device was easy to learn and its use shortened the time of surgery at least 30 minutes. No fistula or other complications related to the device were noted in our patients. The video describes the use of the BAR during the creation of a substitution bladder using a segment of the sigmoid colon.

Reinforced bladder auto- augmentation (a new technique)

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In order to prevent the possible short and long-term complications caused by the parts of the gastrointestinal tract (GI) used for bladder augmentation, multiple detrusorotomies or partial detrusorectomy leaving the bladder mucosa intact were not successful because of subsequent fibrosis development. For avoiding the use of any part of the GI tract in any form, a new technique was developed for augmenting the bladder capacity. Two thirds of the detrusor was resected from the anterior hemisphere of the bladder. The mucosa which was left intact was reinforced by covering it with a layer of stretchable absorbable mesh (dextron mesh). At the end of the procedure the bladder was left full for 48-72 hours to prevent shrinkage of the augmented part. During the last 2 years, 4 patients with low compliance high pressure bladder were treated using this technique. With a follow-up of 6-24 months the results obtained were found to be very satisfactory, including low intravesical pressures, almost normal voiding patterns and bladder emptying. The video describes the procedure and the results obtained in 2 of the patients after 6 and 12 months.

Videoscopic extraperitoneal iliac lymphadenectomy

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Between October 1993 and March 1994, 6 videoscopic extraperitoneal iliac lymphadenectomy were performed (4 bladder, 2 prostate cancer). All patients were male with a mean age of 63.2 years. Preperitoneal space was created by using the preperitoneal balloon distention system. Mean operative time was 95 minutes (range 75 to 135). No perioperative or postoperative complication occurred. Average number of dissected lymph nodes were 6 (range 4-9). Extraperitoneal approach has some advantages such as avoiding peritoneal entry, less CO2 insufflation, wide exposure of pelvic area. This procedure appears to be as effective as operative approach in detecting positive nodes in staging bladder and prostate cancer while decreasing both convalescence and postoperative pain.

FORUM 5

Laparoscopically assisted vaginal hysterectomy (L.A.V.H.) cases performed in Bakırköy maternity hospital

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Eleven L.A.V.H. cases were performed at the Endoscopic Surgery Unit in Bakırköy Maternity Hospital since January 1994. Histopathological results of the cases were 7 myoma uteri, 4 endometrial hyperplasia. The patients stayed in the hospital for 5 days in average. A single dose prophylactic antibiotic was performed to each patient, postoperatively. Foley catheter was left in the bladder for 5 days. In one case, a vesicovaginal fistula occurred postoperatively as a complication.

Gynecologic operative laparoscopy cases performed in Bakırköy maternity hospital

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Eleven Laparoscopic assisted vaginal hysterectomy, 10 ovarian cyst, 2 ectopic pregnancy, 5 myomectomy, 6 oophorectomy, 2 salpingectomy, 4 ovarian wedge resection, 2 adhesiolysis, 1 salpingostomy cases were performed and 12 polycystic ovary syndrome cases cauterised laparoscopically, since January 1994. Histopathological results of all cases were benign. The average duration of stay at the hospital was between 2 and 5 days. A single prophylactic dose of antibiotic was performed to each patient postoperatively. Foley catheter was left in the bladder for 5 days in L.A.V.H. cases and for 1 day in other cases. A vesicovaginal fistula occurred in one L.A.V.H. case and pelvic infection occurred in one myomectomy case.

Video-laparoscopic surgery cases at Zeynep Kamil women's and children hospital

U. Kuyumcuoğlu, H. Gorgen, A. Karateke,
İ. Yücesoy, M.N. Delikara

Zeynep Kamil Women's and Children Hospital, İstanbul, Turkey

We presented 28 cases of video-laparoscopic surgery which has been initiated in January, 1994 in Zeynep Kamil Women's and Children Hospital. The diagnosis of the cases as follows:

*Ectopic pregnancy :6	*Polycystic ovary :1
*Ovarian cysts :8	*Translocated IUD :1
*Endometriosis :6	*Pyosalpinges :1
*Tubal sterilization :5	

Mean preoperative and postoperative periods of patients were 2.11 days and 2.56 days, respectively. Average operation duration was 38.33 minutes. There wasn't any operative complications during the procedures. In this study we evaluated our laparoscopic surgery cases. P.S.: Presentation of two cases will be by video.

IUD translocation: Management with laparoscopic surgery under cystoscopic guidance

U. Kuyumcuoğlu, S. Türkmen, A. Karateke, H. Görgen, O.Z. Artuğ, M.N. Delikara
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The incidence of translocated IUD's is one in 1000-2000 procedures. There are several difficulties in localizing and diagnosing the intrauterine device (IUD) complicated with uterine perforation. We presented a case of old Copper-IUD translocation where localized in the vesicocervical region. This case was managed by videolaparoscopic surgery with the guidance of cystoscopy.

The richter's procedure spinal fixation for treatment of vaginal prolapse

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The different times of the technique of spinofixation according to Richter are shown on a patient with a gyno-urinary prolapse: - Locating the vaginal section the colpotomy median 2 cm in front of the urethral "meatus" finishing at the "vulvar fourchet". Detachment of the two vaginal parts and mobilization after the dissection of the bladder, the "Douglas Pouch" and the rectum. Partitioning of the Douglas by a pouch. - The pressing of the bladder with RAZ type cervico-suspension (the threads will be tied at the end of the operation). - The previous colpotomy opening of the "fascia recti" breaking down of the rectovaginal attachments and exposition of the sacrosacral ligament in the pararectal fossa. The passage of the needle in the ligament which is 1 cm from the sciatic spine marked by the finger is very delicate because of the proximity of the neurovascular pedicle. Two threads are thus placed on either side then, on the vaginal section (Cardionly no 1, round needle), Anterior colpoperineorrhaphy and partially posterior. Tightening of the threads of spinofixation. - Myorrhaphy of the levators plasty of the rectovaginal attachments and complement of the posterior perineorrhaphy. Tight "mechage" and a vesical probe. This operation permits the surgical correction of the three stops of the female pelvis, away from any important static disturbances. It has the benefit of being realised only by a vaginal route, but it requires an excellent exposition and mastery of the anatomy of the pelvis in order to avoid hemorrhagic and neurological problems of the pudendal pedicle.

Laparoscopic Nissen Fundoplication

G.B. Cadiere, J. Bruyns, J. Himpens, R. Verroken
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Laparoscopic surgery has been applied to treat gastro-esophageal reflux disease (GERD) by Nissen Fundoplication (NF). Patients: 156 patients (100 males 56 females) aged 17-77 years (median 46.5 years) not responding to conservative treatment of GERD. One hundred and twenty six patients presented heartburn accompanied by oesophagitis grade II or III as diagnosed by endoscopy. In 22 patients heartburn was accompanied by grade I oesophagitis, and in 8 patients an atypical pain was accompanied by an oesophagitis grade II. In these cases manometry and PH metry linked the symptoms to GERD. The duration of the medical treatment ranged from 6 to 180 months, (median 24 months). The ASA operative risks were as follows: 137 ASA I, 17 ASA II, 2 ASA III. Sixty eight patients had had previous abdominal surgery. Method: Five trocars are needed for the operation. The phrenoesophageal ligament and the lesser omentum are incised with a coagulation hook. The posterior wall of the esophagus is dissected from right to left until the left crus is seen. The short vessels are isolated and clipped, hereby permitting mobilisation of the greater curvature. A fundic wrap of at least 5 cm is created with laparoscopic suturing and intracorporeal knotting technique. Results: There were four peroperative complications: one gastric perforation, two pleural perforations and one liver laceration. There were three conversions to laparotomy: one because of a defective needle holder and two because of left liver lobe hypertrophy. The hospital stay was 2 to 14 days (median 2 days). Morbidity included one wrap necrosis, two pulmonary complications, one small bowel perforation and one intrathoracic migration of the stomach with obstruction. One recurrent heartburn has been observed in the short time follow-up (4-897 days; median 347). Mild dysphagia during the first three months after the operation occurred in 12 patients. There were two patients with dysphagia, lasting more than three months. There was one case of gas bloating, one case of clip migration into the esophagus. Endoscopy was performed in 70 patients on the third postoperative months. A normal mucosa was seen in 64 patients, 5 patients presented an asymptomatic grade I esophagitis and one patient presented a grade II esophagitis. In 11 patients esophagoscopy one year after operation showed normal mucosa. Two patients presented an incisional hernia on a trocar site on the linea alba. Conclusion: Nissen's fundoplication is feasible by laparoscopy. This technique improves the patient's comfort and shortens the hospital stay. Further evaluation and long-term follow-up are warranted.

Laparoscopic transcholedochotomic approach to common bile duct stones

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P. Carcoforo, E. Pozza, I. Donini

Department of Surgery-University of Ferrara, Italy

The experience acquired in the last years and the continuing advances in laparoscopic surgery provided increased impetus for using it for the management of the common bile duct stones (CBDS). Our diagnostic and therapeutic approach to choledocholithiasis is reported and the technique of laparoscopic transcholedochotomic approach is shown. If a pre-operative suspect of common bile duct stones is present we perform an ERCP. If this is confirmed follows an EPT with clearance of the calculi. In selected cases, during laparoscopic cholecystectomy, transcystic intraoperative cholangiography is performed using the Olsen cholangiogram clamp and a 3.5 Fr urological catheter. When the cholangiography shows CBDS or is uncertain we perform a choledochoscopic transcystic examination. If the diagnosis is confirmed a choledochoscopic transcystic approach is attempted using Dormia Basket. If this approach fails a laparoscopic choledochotomy is performed and stones are removed with balloon catheter and Dormia basket. Biliary drainage, with a T tube, is established in all patients. In this way we performed 6 transcholedochotomic clearance of the common bile duct. No mortality or morbidity has been registered in the postoperative course. Particularly, no iatrogenic lesions of the biliary tract have been observed.

Surgical treatment of choledocal cyst

F.J. Oliveira

Servico Cirurgia II Hospital Universidae Coimbra, Portugal

Biliary cysts are a fairly infrequent pathology in occidental countries: the majority of cases are encountered in Japanese statistics. This congenital disorder is revealed especially during the first decade of life and only in 25 % of the cases in adulthood. The high percentage of malignant degeneration conditions surgical treatment leading to prefer complete cyst resection. The authors present the surgical treatment of a choledochal cyst (type I of Todani Classification) in an adult patient.

Surgical treatment of type I choledochal cyst with emphasis to antireflux technique

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Cystic dilatation of the biliary tract is a rare anomaly

in the western world. The aim of treatment is first to free the patient of all symptoms, and secondly to remove the possibility of malignant degeneration and complications such as suppurative cholangitis, lithiasis, pancreatitis, cirrhosis, portal hypertension, and intrahepatic abscesses. The preferred treatment is the complete, early excision of the cyst with construction of a Roux-en-Y-Hepaticojejunostomy. To avoid cholangitis due to reflux of bacteria laden intestinal contents into the biliary tree via the jejunal loop, varying operations utilizing valved intestinal conduits have been proposed. We would like to present a video showing our method of antireflux technique. After excision of the choledochal cyst, a segment of jejunum is isolated 40 cm distal to the ligament of Treitz with its vascular pedicle intact. The distal segment of the Roux-jejunal loop is invaginated and the common hepatic duct stuck into the resulting jejunal lumen. The invaginated bowel (hepaticojejunostomy) is then fixed to the liver undersurface. This method has been used in 3 patients (2 girls and 1 boy) with Type I choledochal cyst (Todani classification) aged at operation respectively 16 weeks, 7 months, and 10 years.

Laparoscopic common bile duct exploration

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As surgeons have gained experience with laparoscopic cholecystectomy, employment of this modality as a therapeutic measure has broadened. To evaluate the laparoscopic treatment of common bile duct calculi as an alternative method to open surgery, we have presented our first cholecystocholedocholithiasis case here. The case was 39-year-old woman has been operated by using laparoscopic technique. Her postoperative course was uneventful she required only oral analgesia and was discharged 48 hours after the operation. She was reviewed 2 weeks after being discharged, T-tube cholangiography was normal and has been removed. Repeated liver function tests at this time were completely normal. It can be said that this method is an alternative to open surgery and must be considered in future.

Technique of laparoscopic cholangiography and removal of common duct stones

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KH der Barmherzigen Schwestern. Linz, Austria

Preoperative evaluation of potential laparoscopic cholecystectomy patients should include sonographic visualization of the biliary tree to assess common duct size and evaluation of liver function to assess possible obstructive changes. Despite careful preoperative determinations patients may found to have common duct stones only on intraoperative cholan-

giography. Renouncing the intravenous cholangiography intraoperatively the cholangiography was performed. The self developed technique consists of percutaneous direct puncture of the cystic duct using a special plastic coated cannula. The authors report 900 cases of laparoscopic cholecystectomies. Unexpected common duct stones were found in 45 patients by IOC. In 31 patients laparoscopic transcystic stone removal was successful.

Should cholangiography be routine to avoid from B ile duct injury in laparoscopic cholecystectomy?

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General Surgery Department of Uludağ University Medical Faculty, Bursa, Turkey

Between November 1992 to April 1994 (18 months) we reviewed 246 patients that are underwent laparoscopic cholecystectomy at the general Surgery Department of Uludağ University Medical Faculty. Male to female ratio was 71/175. Median age was 50 (range from 19 to 82). Cholecystectomy was performed to 209 (85 %) patients because of chronic calculose cholecystitis, 17 (7 %) of acute calculose cholecystitis, eight (3 %) of gallbladder polip, seven (3 %) of asymptomatic gallstone, 1 (0.5 %) of gallbladder tumor, one of cholelithiasis-choledocholithiasis and one of pancreas tumor. 14 patients converted to open cholecystectomy because of intraoperative hemorrhage, difficult dissection, intraabdominal severe adhesions, choledocholithiasis, and synchronous colon tumor. During the same period 40 open cholecystectomy in patients who have high bilirubine, alkaline phosphatase levels or previous jaundice history were performed and 22 of them converted into open cholecystectomy-common bile duct exploration. During the laparoscopic cholecystectomy, perforation of gallbladder developed in 50 patients, hemorrhage in nine (three of them converted to open cholecystectomy), cystic injury in five, insufflation to retroperitoneum in one, colon injury in one, falling of stone in to abdomen in twelve and cardiac complication in 31 patients. Laparoscopic cholecystectomy can be done safely by; 1. Maximal cephalic traction of gallbladder, 2. Lateral and inferior traction of Hartmann's pouch, by pulling it away from the liver, 3. Meticulous dissection of Callot's triangle in lateral and medial direction as close as to the gallbladder, 4. Obtaining clear visualisation of both limbs of the clips, 5. Avoiding electrocauterisation as possible as in Callot's triangle, 6. Performing selective cholangiography, if biliary tract anatomy is not clear, 7. If there is any doubt about safety of operation. It should be converted to open cholecystectomy. As a conclusion; if patients with high bilirubin or ALP levels or history of jaundice eradicated before operation, there is no need to routine operative cholangiography for avoiding bile duct injury.

Laparoscopic common bile duct exploration

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Hepatobiliary Surgery Unit, Univ. of Istanbul, Turkey

This videofilm demonstrates the laparoscopic technique of common bile duct (CBD) exploration and stone removal in a patient with cholecystocholedocholithiasis in whom preoperative endoscopic sphincterotomy and stone extraction had failed due to intradiverticular location of the papilla of Vater. Under general anaesthesia, access was achieved through five laparoscopic ports. The cystic artery was clipped and cut and the gallbladder was retracted cephalad from the fundus and traction applied on the CBD for better visualization and easier access. Choledochotomy was then made using a needle tip electrocautery and scissors and the CBD explored with a choledochoscope. A single CBD stone, 1.5 cm in diameter, was found to be located distally which was extracted with the help of a basket. Clearance was then checked endoscopically and a 12 French T-tube was inserted into the CBD. Choledochotomy incision was then sutured intracorporeally with interrupted sutures using 4/0 PDS. The cystic duct was then clipped and the gallbladder removed in the usual laparoscopic way before the proximal end of the T-tube was extracted through the subcostal trocar port. The duration of the operation was 180 minutes. Postoperative recovery was uneventful and rapid and the patient was discharged on the fourth day after the operation. The T-tube was taken out on the 10th day following a normal cholangiogram. Laparoscopic CBD exploration is a viable alternative for the treatment of CBD calculi. It requires experience in biliary surgery and laparoscopic techniques.

Laparoscopic cholangiography by direct canulation

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General Surgery Department of Istanbul University Medical Faculty, Turkey

Peroperative cholangiography has great importance in video laparoscopic cholecystectomy patients with pathologic factors in their history (cholangitis and icterus), in biochemistry (bilirubine and transaminase elevation) or ultrasound findings (dilated bile ducts) and also in cases when bile ducts aren't visible enough during laparoscopy as we all know. In these cases perop. cholangiography is outstanding to verify the biliary pathology, bile duct anatomy and possible anomalies, especially in laparoscopic cases where direct palpation is impossible. Some perform and advice perop. cholangiography during laparoscopic cholecystectomy in routine and others defend the idea of using this technique when it's necessary. Because of its disadvantages such as being time-consuming and requiring some special equipment we prefer to perform cholangiography during laparos-

copic cholecystectomy by direct canulation. 12 of our laparoscopic cholecystectomy patients underwent cholangiography by direct percutaneous canulation of the cystic duct with no problem in bile leakage and satisfying results. We believe that this technique is simple with no requirements of special equipment and effectonate, reliable time saving process.

FORUM 8

Dual port cholecystectomy (Gasless laparoscopic management)

**M. Berberoğlu, F. Ercan, O. Hamamcı,
K. Karayalçın, A. Korkmaz**

6.th Surgical Univ. Ankara Numune Hospital, Turkey

Laparoscopic cholecystectomy is continely performed with CO2 insufflation using 4 trocars. CO2 insufflation has many adverse hymodynamic effects and is associated with postoperative shoulder pain. We performed gaslesslaparoscopic cholecystectomy in 7 selected patients using laparolift with 2 trocars to avoid these complications. Mean operative time was 56 minutes. There was no morbidity and mortality. Dual port cholecystectomy can easily be preferred in selected cases with minimal cost. The operative technique is presented in the video tape.

Gasless laparoscopic cholecystectomy (Using conventional instruments)

**F. Ercan, A. Korkmaz, M. Berberoğlu,
O. Hamamcı, K. Karayalçın**

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Gasless Laparoscopic Cholecystectomy technique offers the advantage of avoiding undesired effects of pneumoperitoneum and has a potential of using conventional instruments by which the cost of operation can be minimised. In this video, we are presenting our experience in using conventional instruments during gasless laparoscopic cholecystectomy.

Our laparoscopic cholecystectomy experiences

A. Demir, Ş. Taner, C. Atalay, B. Baydar, S. Sari
General Surgery Department, Ankara-Turkey

80 laparoscopic cholecystectomy cases, operated in our clinic between November 1992-April 1994 are presented. This is our clinic's first experience with this technique. The number of female and male patients were 74 and 6 respectively. The youngest patient was 20 years old and the oldest patient 75 years old. Ultrasonographic examination of the abdomen revealed 76 chronic cholecystitis, 3 acute cholecystitis and 1 gallbladder polyp. Fourteen of our patients had operations related to lower abdominal or pelvic regions. Laparoscopic cholecystectomy was performed through 4 cannulas which were placed above umbilicus, in the right subcostal region on mid-

clavicular and anterior axillary lines and below xiphoid on the midline. Although intraoperative and postoperative morbidity occurred, no mortality was recorded. For today we believe that laparoscopic cholecystectomy is an alternative method to open cholecystectomy.

Laparoscopic cholecystectomy performed in a patient with situs inversus

A. Demir, C. Atalay, A.Ş. Taner, S. Sari

Department of General Surgery, Ankara Hospital, Ankara, Turkey

A 64-year old woman, who had a known situs inversus of the abdominal organs without any congenital abnormalities, presented with cholelithiasis. After the routine laboratory investigations, it was shown that she did not have any diseased organ in her abdomen, except the gallbladder containing multiple gallstones 4-5 mm in size. The intra- and extrahepatic biliary tract was normal. Although it was technically difficult, a laparoscopic cholecystectomy was successfully performed.

Laparoscopic cholecystectomy: two years experince

**S. Doğan, U. Sungurtekin, G. Çiftdemir,
P. Palandüz**

Eşrefpaşa Hospital, İzmir, Turkey

After explosion in laparoscopic cholecystectomy, it has been a "New Gold Standart" for the treatment of cholelithiasis. We presented our two years experience here. total of 400 cases were performed between May 1992 and March 1994. 308 of the cases were female and 92 were male. The overall conversion rate to open cholecystectomy was 1.5 % (6 patients). Total complication rate was 3.75 % (15 patients). Mortality rate was nil. The intraduction of laparoscopic cholecystectomy has resulted in an increased frequency of laparoscopic surgery without an increase in surgical mortality.

Our results of laparoscopic cholecystectomy

K. Mümtaz, E. İsmet, Ö. Vasfi

7.th Surgical Clinic Numune Hospital, Ankara, Turkey

Between October 1993-February 1994, Laparoscopic Cholecystectomy was performed in 42 women, 4 men (mean age: 51.09) in our clinic. In six patients, the diagnosis was acute cholecystitis. In three cases, we performed choledochoscopy and cholangiography. In eight cases during operation, gallbladder perforation occurred. In one case, small gallstone remained in the abdomen, following gallbladder perforation. In one case, we return to open cholecystectomy. Wound infectionwas detected in three cases. Total complication rate 6.5 %, no mortality is seen.

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KLİNİK HİJYEN BİRİMİ

Giant exulceration of breast cancer recurrence - resective surgery and reconstruction of the defect

H. Piza-Katzer, R. Roka, M. Hermann

Department of plastic and reconstructive surgery, KH Lainz and department of surgery, Kaiserin Elisabeth Hospital, Austria

We show a 35 years old patient with a giant breast cancer recurrence. The exulceration had a dimension of about 20 cm in diameter. We show the complete resection of the tumor including the pectoralis major muscle. The defect measuring 30 cm could be covered with a pedicled musculus rectus abdominis flap. The tension on the graft could be reduced by a relaxing incision on the contralateral breast.

Breast reconstruction by tissue expansion and symmetrisation

C. Zeybek, J.P. Chavoin, J.L. Grolleau, M. Costagliola

Service de Chirurgie Plastique et Réparatrice - Hôpital de RANGUEIL 1, Avenue Jean Poulhès 31054 - Toulouse Cedex - France

After mastectomy for breast cancer, the measures of reconstruction are different considering the condition of local skin. Whether the skin has not been damaged after radiotherapy, the best and easiest technique is prosthetic reconstruction preceded of a time of progressive cutaneous expansion. The reconstruction in two time is associated to a symmetrisation mammoplasty of the opposite breast using the "remaining breast" technique with foredrawing and L shaped scar. Finally, the last touch is to restore the nipple-areola complex using graft or local flap (for the nipple) and dermopigmentation (for the areola). The Authors report the different technical stages of this kind of reconstruction and present the results which can be obtained.

Prefabricated antebrachial flap for nasal pyramid reconstruction

A. Luis Silveira, A. Ferreira, Durate and G. Sarabando

Dept of Surgery I. Hospitais da Universidade de Coimbra Coimbra, Portugal

The most recent advance for reconstructive micro-surgery are the prefabricated flaps because where traditional methods (axial flaps) fail they assure the repair of complex lesions of the face. The Authors present a technique already essayed by Baudet in 1991 with success. A 62-year-old male who attacked himself with a hunting-gun presented jaw and nasal pyramid loss. He underwent several surgeries for mandible, jaw and lips reconstruction - rib and axial

flaps were used respectively. Because these were lacking a prefabricated antebrachial flap with auricular pavilion cartilage was preferred for nasal pyramid reconstruction. Different steps of the surgeries are showed. In the first operative time the flap was lifted on the upper right limb, the shape was adjusted by transferrin some auricular cartilage to the septum and an arterio-venous fistula with saphanous long loop was built once there were no good receiver vessels close to the lesion. Fourteen days after a second operative time was performed. The receiver bed was prepared, the flap was transposed and micro-vascular anastomoses were accomplished. Two silastic tubes (7 mm) have repermeabilized the nostrils and were left there for a period of five months. No post-operative complications were occurred. The result we present (at the fifth month) is not final although the patient considers it satisfactory. Other techniques are discussed for major nose projection purpose.

Total parotidectomy with facial nerve dissection

L. Silveira, J. Patricio, A. Velez, A. Duarte, G. Sarabando and M. Mendes

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Some benign cancers of the deep lobe of the parotid gland demand for total parotidectomy with preservation of the facial nerve mainly in young patients. A 18 year-old boy underwent surgery for mixed cancer of the deep lobe. The Authors present the surgical technique, the identification of the facial trunk, the dissection of its branches under operative microscope and the plasty of the residual cavity with (partial) muscular pedicle flap of sternocleidomastoid after total excision of the gland. No definitive nervous lesion had occurred under this technique (12). In two cases there were paresias of the frontal and chin branches with complete recovery at the 5th and 4th month respectively. The cosmetic results are good.

Omental free flap transposition to the forearm

J. Patricio, J. Botelho, L. Silveira, F. Falcão, L.J. Raposo

Department of Surgery II, Hospitais da Universidade de Coimbra, Portugal

In oncological surgery the omentum reveals itself as being an effective method where other reconstructive techniques fail. When there are a need of noble structures preservation mainly in extensive and irregular lesions associated to dystrophic and infected tissues, the omentum seems to be the method of choice for its dimension, circulatory characteristics, non-infective character, good answer to cutaneous grafts and plastic qualities. A patient with early destruction of noble tissues of the anterior forearm and back of the hand due to anti neoplastic agents with pre-

sumed indication for amputation is presented. The surgical approach consisted of free grafts revascularization through micro anastomosis. With a follow-up of eight years the pain have disappeared and the patient had recovered her professional capacity.

FORUM 10

Right hepatectomy and lymphadenectomy of hepatic pedicle for metastasis of colorectal carcinoma

M. Morino, C. Garrone, V. Festa, C. Miglietta
Clinica Chirurgica I University of Turin, Torino, Italy

The video shows a right hepatectomy (following Couinaud's classification) for a metastatic lesion from colorectal cancer. Vascular control is obtained by the Bismuth's combined technique. Intraoperative US is made to certify the absence of left hepatic involvement. A complete hepatic pedicle lymphadenectomy is performed; right hepatic pedicle is identified and clamped, without ligature. Then the liver is opened along the main scissural line and the portal elements are located and transected inside the parenchyma. The dissection is continued and the hepatic right vein is ligated inside the liver. This technique has an advantage of a selective control of the vessels before the liver transection and of dividing the vessels inside the parenchyma, thus avoiding anatomical abnormalities. We are currently evaluating the role of pedicle's lymphadenectomy for staging and prognosis of hepatic malignancies.

Surgical technique in liver resection

M. Rees, R. Borrowdale
Basingstoke District Hospital, England

Until recently, major liver resections were daunting procedures with considerable blood loss and significant post-operative morbidity and mortality. Technical refinements and better understanding of hepatobiliary anatomy mean that liver resection can be performed safely. The videotape presentation "Surgical Technique in Liver Resection" demonstrates a standard right hepatic lobectomy for colorectal cancer metastases. The video specifically illustrates the anatomic details and highlights the surgical techniques employed that allow major hepatic resections to be performed with minimal blood loss or morbidity. Technical refinements and better understanding of hepatobiliary anatomy mean that liver resection can be performed safely. The videotape presentation "Surgical Technique in Liver Resection" demonstrates a standard right hepatic lobectomy for colorectal cancer metastases. The video specifically illustrates the anatomic details and highlights the surgical techniques employed that allow major hepatic resections to be performed with minimal blood loss or morbidity.

Right hepatectomy for rectal metastases

F. Castro Sousa, A. Millheiro, J. Alegrio, E. Pinheiro, J. Aguiar
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Surgical resection is the only curative treatment for hepatic metastasis of colorectal cancer. In a 72 years old patient an hepatic deposit was diagnosed seven months after an anterior resection for a rectal carcinoma (pT3N0). The patient was treated by a right hepatectomy with previous control of the right hepatic vein and the right branches of hepatic artery and portal vein. As may be seen in the video an ultrasonic dissector was used and the complications were detected during and after the operation. Ten months after the operation there is no clinical or imagiologic evidence of relapse.

Echoguided exercises of centro hepatic tumors

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The authors report two cases of echoguided exercises of centro-hepatic tumors. Peroperative ultrasonography permits the localization of the tumor thanks to a needle in the first case of a centrohepatic adenoma. In the second case, peroperative ultrasonography permits to define the safety margin during a resection of a centrohepatic metastasis. The procedure is able to avoid an important parenchymatous sacrifice in case of tumors which would need an extended hepatectomy.

Surgical resection of a Klatskin tumour

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In the western world Klatskin's tumours are normally diagnosed very late and in our experience (30 cases) the resectability rate is very low (32 %). A Klatskin tumor was diagnosed in a jaundiced 64 years old patient, with the help of imagiologic methods: ecography, scanner and ERCP. The patient was treated with resection of the common bile duct including the right and left hepatic ducts as will be seen in the video; a triple bilioenteric anastomosis using a Roux en Y loop was used for biliary drainage. No complications were detected in the post-operative period and, three years after, the patient remains without jaundice and free of relapse.

Our attitude in the treatment of the bleeding portal hypertension

S. Morales
Sevilla, Spain

Once the different hemodynamic studies have been carried out, we can determine those patients that should be treated and their prognostic factors. Sclerotherapy is the correct treatment in emergency cases of hemorrhage. We consider that the elective treatment of this cases are: Distal Spleno-Renal (Warren), which does not decrease the blood flow to the liver. Calibrated Porto-Cava, which preserves the blood flow to the liver. Intrahepatic Porto-Cava (transparietohepatic and transjugular) with calibrated prosthesis. Liver transplantation is used in cases with specific indications.

Hemodynamic study of patients with portal hypertension: Our systematic

S. Morales
Sevilla, Spain

Our systematic of study of these patients is: Determine the presence of esophageic varices (EV); study with Nuclear Medicine (NM); and study of the systemic and pulmonary hemodynamics (SPH). EV are detected by radiographic study with contrast and/or high digestive endoscopy. The hepatic blood flow is determined by NM. The hepatic hemodynamics is studied by HP, which determines the caliber and pressures of the vessels. The SPH shows the hyperdynamic stage of the patients and/or pulmonary hypertension. Conclusions: We can determine which patients must be treated and their prognostic factors.

FORUM 11

Minimally invasive video-assisted thoracic surgery our experience

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The Authors report their video-assisted thoracoscopic experience during the late 2 years. The case-series consists of 75 patients (53 males and 22 females), mean age 64 years. The operations performed were: 40 atypical pulmonary resections (30 cases of spontaneous Pneumotorax due to blebs rupture and 10 cases of periferal nodules), 7 sympathectomy for hyperhidrosis, 15 pleural biopsies for effusions or neoplasms, 2 tymphectomies for timomas, 2 biopsies of mediastinal linphadenomegaly, 9 cases of staging for lung cancer. We have no intraoperative mortality nor morbidity. Pleuric drainage was left for some days (average 5 days) Discharge from the Hospital was achived at sixth postoperative day.

Pericardic window by thoracoscopy

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A patient with severe pericardial effusion due to diffuse carcinomatosis and congestive heart failure is presented. By Ecocardio the large liquid pericarditis and enlarged suprahepatic veins were shown. By thoracoscopy pleural effusion was detected and aspirated. A puncture into the pericardium released 600 cc. of bloody fluid. Enlargement of the opening, creating a large pericardial window, decompressed the lonle pericardium and the heart failure improved.

Thoracoscopy for chest wall Tumors

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Two chest wall tumors (two intercostal nerve neurinomas) were resected by VATS. Tpiib ;oncercune ib quite easy to perform as these tumors are relatively easy to localize and to revect with a small segment of the intercostal nerve on each side of the tumor. Benign chest.wall tumors usually are quite easy to identify and to dissect due to excellent exposure offered by the magnification of the camera. Five patients underwent a thoracoscopic sympathectomy for neurovascular disorders of the upper extremity. In all patients, the porcedures were performed without much difficulty and without complication. Recovery was uneventful and, until now, evaluation of the functional results is excellent in all 5 patients. Compared with open surgery, VATS offers much better visualization of the sympathectic chain and its branches due to magnification on the screen. This is, in our opinion, the method of choice in the surgical treatment of neurovascular disorders of the upper extremity and in the treatment of hyperhidrosis.

Thoracoscopic thymectomy

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Department General Thoracic Surgery, Catholic University Hospitals, Leuven, Belgium

In a patient with myasthenia gravis, a thoracoscopic exploration was attempted through a left-sided anterior thoracoscopic approach. The thymus was performed. On the left side, all surrounding fatty tissue and lymph nodes of the upper anterior mediastinum down to the lung hilus were removed. On the right side, the surrounding fatty tissue was removed asfar as possible. A complete resection of the thymus is certainly feasible by using VATS. Avoidance of an often disturbing (for the patient) scar at the level of the manubrium sterni is certainly a benefit. This benefit, however, has to be weighed against the possible dis-

advantage of prolonged one-lung ventilation. Whether thymectomy by VATS will become a valuable alternative to the trans thoracic approach in terms of controlling the myasthenia gravis remains to be investigated with carefully randomized prospective studies.

Videothoracoscopy evaluation of 26 cases applied in our hospital

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Videothoracoscopy techniques which have gained great access to thoracic procedures around the world in the last 4 years, have been performed on 26 consecutive patient in our clinic with success. These procedures include (1). Resection of apical bullae and pleurodesis in 8 patients; (2) wedge resections of pulmonary nodules in 4 patients (3) excision of a mediastinal tumor in 2 patients (4) excision of the pericardium and drainage of the pericardial sac in 2 patients (5) thoracic sympathectomy for Raynaud disease in 1 patient (6) diagnostic thoracoscopy for the diagnosis and treatment of the pleural disease in 7 patients (7) wedge resections for the diagnosis of interstitial lung disease in 2 cases. Average operation time was 2.1 hours, average time for removal of chest tube was 3.4 days and average postoperative hospital stay duration was 4.8 days. Postoperative pain was minimal in all patients. We believe, in selected cases VATS is a very good method. As the patients had very little pain morbidity rates were very low.

Neurilemoma resection by thoracoscopy

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Cid 61 Alcoy-Spain

A 58 years old patient was admitted to the hospital, and a large (3.5 cm) posterior mediastinal mass was detected by chest x-rays and CAT scan. By thoracoscopy with 3 ports, resection was undertaken. Complete dissection of the mass was achieved. A bleeding intercostal vessel was controlled by electrocoagulation and clipped. The patient recovered and was sent home in two days.

Giant bullae emphysema, treatment by V.A.T.S.

H. Hoyo

Carlos Durand General Hospital Bs. As. Argentina

Giant bullae emphysema is a pathology giving a severe evolutive restrictive respiratory insufficiency. At the Carlos Durand general Hospital, Bs. As. Argentina 4 video assisted thoracoendoscopic surgery (VATS) were made in patients whose pathologies la-

cated at the superior lobes. In three cases it occurred in the right lung and in the other in the left. Preoperative evaluation was made by DAT and respiratory functional examinations (The four patients had a moderate to severe restrictive deficit). By VATS bullae resections were made with mechanical endostaplers 3.0 or 6.0 sutures. Taking off of the specimens was made by 10 mm. holes. Patients had scarce to absent postoperative pain. There was a postoperative lack of expansion, which was treated with a prolonged tube. The postoperative respiratory functional examination showed better results than the preoperative ones.

Surgical and technical failures in thoracoscopic surgery

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In this video, we show a summary of surgical and technical problems in thoracoscopic surgery: the section of an intercostal artery during biopsy of a severe pleuritis resulting in a massive bleeding requiring urgent thoracotomy (thoracotomy not shown). We also show the breakdown of technical instruments in the thorax; the ENDO-GIA: knife fails to cut, loss of magazine in the thorax, insufficient placement of the staples on the azygos vein during thoracoscopic esophagectomy. A TROKAR breaks to pieces, the piece can be successfully removed from inside the thorax.

FORUM 12

Laparoscopic drainage in hydatid cysts of liver

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There are various surgical techniques for the treatment of liver hydatid disease. In general the cystic cavity is evacuated and after this evacuation a series of surgical interventions could be tried to promote healing of the residual cystic cavity and to prevent bile fistula formation. We have developed novel tool for the evacuation of liver hydatid cysts. The tool has been successfully tried on open surgical operations with outstanding results since 1991. It is a sucker with a rotating blade inside, never blocked due to this rotating blade which driven by an electrical motor via a flexible cord. It opens a tight hole on the wall of cyst, and then, grounds and sucks out the cystic contents. While the evacuations processes, scolocidal agent is also continuously given into the cyst through its special duct. We also found, after evacuation of the hydatid contents, applying negative pressure into the cavity, makes vacuum capitation prevents bile fistula formations and also accelerates healing of the

residual cystic cavity. Now we have collaborated, our new sucker, vacuum captonage, and laparoscopic surgical techniques to gather. In 6 patients 11 liver hydatid cysts have been treated using this laparoscopic technique. Conversion to laparotomy was necessary in one case because of bleeding. Postoperative CT examinations displayed marked shrinking or obliteration of the residual cystic cavities.

Hydatid cysts of the liver

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This video shows the gasless laparoscopic treatment of 3 cases of hydatid liver cyst. First case was a 30 year old woman who has a 6 cm cyst in the left lobe second case was a woman aged 18 with 10 cm cyst in the right lobe and the third case was 27 year old male with 15 cm cyst in the left lobe of the liver. Under general anesthesia laparoscopy was performed through an supra-umbilical incision with the help of the Laparolift. Further access to the peritoneum was gained by inserting a second 10 mm port. The cyst content was aspirated and hypertonic saline was injected into the cyst cavity. The roof of the cyst was incised by diathermy and cyst content were (germinal membrane) transferred in to a endobag and evacuated through the umbilical port. A foley catheter was inserted in to the cyst cavity through the lateral port as a drain. Laparoscopic management of hydatid disease reduces the morbidity and hospital stay, provides excellent postoperative comfort and avoids long abdominal incisions.

Laparoscopic management of hepatic hydatid disease

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Although several operative procedures have been developed for the management of hydatid disease of the liver for many years, the great potential of morbidity of these procedures have been a major challenge for the attending surgeons. With the recent introduction of laparoscopic procedures into the field of general surgery, a new concept in the management of this disease offering several advantages has begun to come out. We have managed two patients with hydatid disease of the liver laparoscopically; the first patient undergoing a laparoscopically aided external drainage with removal of the parasitic content. In the second patient nearly total pericystectomy was performed to a cyst measuring 17x20 centimeters with exophytic localisation in the right anterior lobe of the liver. In our two patients we have seen that laparoscopic partial cystopericystectomy with removal of the parasitic content, and external drainage can be performed safely in appropriately selected cases with the advantages of less postoperative

pain, short hospital stay, quick return to work, more aesthetic result and decreased morbidity.

Video laparoscopic treatment of liver hydatid cysts with partial cystectomy and omentoplasty: A report of two cases

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There are a variety of surgical treatment modalities available for the treatment of the liver hydatid disease, each with its own advantage and disadvantages. Partial cystectomy and omentoplasty, being one of the preferred surgical methods, have been performed on two selected cases of liver hydatid cyst using a video-laparoscopic approach. Patients showed an uneventful recovery and were discharged by the 3rd and 5th postoperative days respectively. In this video presentation we show the technical details of the operations.

Laparoscopic treatment of a splenic cyst

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A.Z. St. Vincentius, Ghent, Belgium

A case of a laparoscopic approach of an epithelial splenic cyst in a 14-year old girl is described. Patient was placed in a classical lithotomy position. Beside the camera in the umbilicus there were three more working channels, subxyhoidal left, midepigastria and left hypochondrium. After puncturing the cyst, the latter was unroofed in her fibrotic part. A large fenestration was performed. No attempt to pack the defect by means of an omentoplasty was made. A close suction drainage was removed on POD II and after an uneventful postoperative course patient was discharged on POD IV.

Laparoscopic splenectomy

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Splenectomy by laparoscopy was attempted in 17 patients, including 2 children (11 and 16 years). Two adult patients had to be converted due to intraoperative bleeding. In our 15 successful cases. The strategy of the splenectomy procedure was always identical as is explained in this video. The spleen is first dissected at its lower pole with severance of the splenocolic ligament. The transected ligamentous attachments of the spleen are then grasped and the spleen can be lifted upwards. The anterior peritoneal leaf of the gastrosplenic ligament is incised the

splenophrenic ligament is severed and the short gastric vessels are isolated, clipped and cut. The hilus can now clearly be seen. Artery and vein are isolated and ligated with intracorporeal knotting technique. Finally, the last posterior attachments of the splenorenal ligament are taken down and the spleen is put in a plastic bag, which is partially pulled out through one of the trocar openings. The spleen is then mechanically crushed and removed piecemeal. Usually a drain is left in the left upper quadrant. This technique is attractive because of the low morbidity (0 in our series), the short in hospital time (3. days on the average) and the advantageous esthetical results.

Laparoscopic splenectomy

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The recent popularity of videolaparoscopic cholecystectomy had led to the adaptation of this technique to many routine surgical procedures. We are presenting our initial two experiences of laparoscopic splenectomy. Case One: (YM 651035) 24 years old female patient, diagnosed Hodgkin lymphoma. A staging laparotomy was indicated. She was positioned in lithotomy position. General anesthesia with endotracheal intubation was used. A pneumoperitoneum is established with carbon dioxide. Four 10 mm and one 5 mm trocar was inserted. Only hemoclips and prolene sutures had been used for vascular ligations. After freeing the spleen from other attachments it is inserted into a plastic bag. Then it was brought out after 4 cm enlarging the umbilical incision. She was discharged at third postoperative day without any problems. Case Two: (A.K. 664437) 21 years old female has diagnosed intractable idiopathic thrombocytopenic purpura. Four 10 mm trocars was used. Operation was performed on as in the former one. After inserting the spleen in a plastic bag the open end of the bag is brought out through the umbilical port. The spleen is smashed in the bag with a small ring forceps and it was sucked out using a special sucker that we used for hydatid disease.

FORUM 13

Cervico-mediastinal lymphnode-dissection in differentiated thyroid carcinoma

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Papillary and C-cell-carcinoma of the thyroid are typically presenting with regional metastatic spread to cervical lymphnodes almost at any stage of the primary tumor, while in follicular carcinoma this is the case only in advanced primary tumor disease. Cervical and mediastinal metastatic lymphnode spread of differentiated thyroid carcinoma may also occur over

years of follow up after radical primary treatment. The indication for systematic cervical and also mediastinal lymphnode dissection is justified in advanced primary disease at the first surgical event and also as recurrent surgery with considerable hope for cure. The video shows the meticulous technique of cervical and mediastinal lymphnode dissection and also gives statistics and results of own patients including morbidity and survival.

Recurrence of follicular and anaplastic thyroid carcinoma

M. Hermann, R. Roka

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In this video, we present a giant follicular thyroid carcinoma of 1900 grams, which could be radically removed in 1988. The 50 years old patient refused all follow-up treatment such as radioiodine treatment or chemotherapy, and she appeared 5 years later, in 1993; with a local recurrence invading the upper part of the sternum and extensive lymph node metastasis. We also show the removal of this recurrence including partial resection of the sternum and neck-dissection. A microscopical radical operation was possible. In contrast to this, we also present a second case of a 49 years old patient suffering from an anaplastic thyroid carcinoma with an inoperable local recurrence only 10 weeks after first surgery. This video will emphasize, that the operability and the survival time in thyroid carcinoma is very much depending on the histology of the tumor.

Primary hyperparathyroidism in recurrent nodular goiter

R. Roka, M. Hermann

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We present the surgical procedure in a patient with a parathyroid adenoma located at the right upper pole of the thyroid. Because of a previous operation due to a nodular goiter, we used the lateral access to the parathyroid space, between the sternohyoid and the sternocleidomastoid muscle. All 4 parathyroids (one of them with an ectopic localization in the thymus gland), their blood supply, and the laryngeal recurrent nerves are dissected clearly. The parathyroid adenoma on the residual upper right pole of the recurrent thyroid is resected. We also show the removal of the recurrent goiter.

Visual evoked responses (VER) and hypophyseal surgery

J.J. Haffmann

Paris, France

Visual evoked responses (VER) or visual evoked potentials are and Hypophyseal surgery recorded during hypophyseal-surgery after stimulation with

LED goggles since three years. 32 eyes have been studied. For the visual field more 90 % good results. The monitoring to avoid doing some lesion on the visual pathway. Several cases are studied with neurophysiology consequence. A multivariate statistical analysis show the importance about technical approach, age, oldness, VER before-during & after-surgery, clinical aspect. The more important is to recover and VER alteration before the and of the surgical act.

Video-scopic retroperitoneal adrenalectomy (VRA)

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Department of Surgery Istanbul Medical Faculty, Turkey

The anterior transabdominal approach for adrenalectomy is considered to be a source of postoperative morbidity and the exposure of the right adrenal gland can be a problem. VRA offers improvement over open procedures in eliminating postoperative complications and providing excellent exposure for performing this minimally invasive procedure. VRA was used in four patients; two with bilateral hyperplasia from Cushing's disease, two with adenoma in the left adrenal gland. The patients were placed in the prone semi jack-knife position on the operating table. After expanding the retroperitoneal space with a balloon trochar, four 10 mm trochars are placed to perform the procedure. The same technique was used on each side to perform right and left adrenalectomy. Bilateral adrenalectomy took 5 hours and left adrenalectomy took 2 hours 30 minutes. There was no operative morbidity. Patient discomfort was minimal postoperatively all the patients were discharged on the 3rd postoperative day. VRA is a new and safe procedure. It has the advantage of avoiding big abdominal incision or rib resection necessary for posterior approach.

Radical thymectomy

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Dpt. General Surgery S. Carlo Borromeo Hospital Milan, Italy

We present 61 years old patient suffering from Myasthenia Gravis (IIA-Osserman=s) with thymoma (I-Masaoka's) in the right lobe of the thymus. Surgical access is achieved only by tota median sternotomy. We remove mediastinal pleura, pulmonary parenchyma or pericardiu if we observe a tumor adhesion. As well as the thymus itself, the mediastinal tissue is removed. It contains thymic cells and islets in at least 81 % of cases. Pericardial sac, great vessels, trachea and phrenic peduncles are so completely cleaned.

Distribution of all patient by age

years	M.G.	M.G. + THYMOMA	TOTAL
10-19	21	0	21
20-29	57	5	62
30-39	49	4	53
40-49	34	1	35
50-59	51	5	56
60-69	11	3	14
70-80	0	1	1
	223	19	242

total pt. Evaluation of treatment 4 year after surger
complete remission partial r. no r.

100 % 67.28 % 22.22 % 10.49 %

Righ adrenalectomy and extended lymphadenectomy performed for functioning carcinoma

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The videotape shows the procedure we considere the standard for the treatment of the adrenal carcinoma consisting in adrenalectomy, removal of the upper part of the renal capsula and extended lymphadenectomy. Following right subcostal incision, the infrahepatic cava and the right renal vein are freed. After right renal artery dissection, lymphadenectomy continues by removing retrocaval lymphatic and fat tissues. The upper part of the renal capsule is removed "en bloc" with the tumor: on the upper side the tumor is strongly adherent to the liver and its removal requires limited liver resection. Lymphoade-nectomy is now extended to the interaortocaval tract; limphatic and fat tissues placed around the left renal vein and right artery are removed. Histology showed the tumor to be a functional adrenal carcinoma; metastasis were found in a node of the peritumoral tissue and in an interaortocaval node. The patient is free of disease ten months after surgery.

FORUM 14

Cardiomyoplasty

A. Ordoñez, J.B. Perez, JM. Borrego, E. Gutierrez, A. Hern Andez, A. Molist, MP. Camacho, R. Bello, F. Palma, P. Carrasco

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When the cardiac muscle is exhausted, it can be replaced by another one. A patient with a cardiac insufficiency can be aided by new techniques other than transplantation. Most of the investigators believe that the best way to aid an insufficient cardiac muscle is by using another muscle of the patient himself. This techniques is called cardiomyoplasty. Cardiomyo-

plasty is the technique by which a transformed skeletal muscle is moved into the thorax to wrap the heart and help it in its work. The search of a muscle able to aid the diseased heart has been a topic of discussion for years. Our research group has as its main goal the development of complex techniques of training of the skeletal muscle to transform to transform into a tireless muscle, resistant to fatigue and functionally similar to the myocardium. The transformation of the skeletal muscle into a cardiac muscle is feasible thanks to an electrostimulation protocol. The surgical technique begins with the dissection of the muscle. We use the latissimus dorsi muscle due to its proximity to the heart. Cardiomyoplastia is a surgical technique with an important future in the management of the patient with advance cardiac impairment. Besides the surgical methodology, we present an intracellular technique that allows the detection of the optimal time of transformation of a trained skeletal muscle to function without getting tired like the cardiac muscle. Due to the few donors and to the severe selection criteria to be a candidate for a cardiac transplantation, the cardiomyoplasty offers a valid surgical alternative and a hope of life to a lot of patients with endstage cardiac disease.

Extraperitoneal endoscopic lumbar sympathectomy

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The objective is to evaluate a technique which combines the advantages of minimal invasive surgery with those of the extraperitoneal approach. In the period between May 1993 up to September 1993, 8 patients presented with causalgia of the left leg due to a previous trauma. All these patients underwent an extraperitoneal endoscopic lumbar sympathectomy on the left side. By improving the technique, the operative time decreased from 210 minutes to less than 40 min. The technique was feasible and effective in all cases. No complications occurred. This technique seems to be successful for lumbar sympathectomy as well as for other retroperitoneal procedures.

Videothoracoscopy in cardiac surgery

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There is some pericardial disease that may be to handle through Thoracoscopy without thoracotomy. The more important is "The pericardial window" in chronic effusive pericarditis. Our research group has as its main goal the development of this technique for training of the surgeon team. This video-film show the surgical technique of a ppleuropericardial window

and a pericardial biopsy by trough videothoracoscopy. The Videothoracoscopy is a surgical technique with an important future in the management of the patient with cronic pericardial effusion and / or need of the pericardial biopsy.

Videothoracoscopy sympatectomy: A method of choice

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Eleven videothoracoscopy thoracic sympatectomies were performed in eight patients. The indication for surgery was neurovascular disorders in 3, Raynaud disease in 2 patients and hyperhidrosis in one with bilateral requirement, Burgery disease in 2. Median duration of operation was 35 min. (range 25-60). T2, T3, T4 ganglia were excided in operations. There was no operative colication necessitating open thoracotomy. No postoperative complication was observed. Five, patients were discharged in the second day and the others were in third. We think that videothoracoscopy sympatectomy must be the method of obaice because of better visualisation and magnification with very less morbidity according to open surgery.

Thoracoscopy upperthoracic sympathectomy for 23 palmar hyperhidrosis - our experience

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Palmar Hyperhidrosis is excessive sweating beyond physiological needs in the palm without recognized etiology. Though benign affection, it is anoying to most patients. Currently the best treatment for this condition is upper thoracic sympathectomy via many different approaches. Among those, the videothoracoscopy approach has been recomanded as a minimally invasive procedure. We repport our one year experience with transaxillary endoscopic sympathectomy in 99 patients with palmar hyperhidrosis. The standart video-laparoscopy was used in a transaxillary approach to perform the sympathectomy the mean operative time of this intervention was 12 min and mean hospital stay was 32 hours. The results in term of warm and dry hands were excellent. Only one case of transitory horner syndrome was noted. Transaxillary thoracoscopy symphaectomy for palmar hyperhidrosis is relatively simple and effective procedure wich necessitate standart laparoscopic instruments. The advantages are, short recovery time and hospitalisation along with excellent functionnal and cosmetic results. We are convinced that thoracoscopy sympathectomy is the procedure of choice for the treament of palmar hyperhidrosis.

Superior-septal approach to the mitral valve

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Superior-septal approach to the mitral valve has been used in 11 patients. All of these cases underwent mitral valve replacement (MVR) and De Vega annuloplasty (DVA) procedure. In two of these patients an additional aortic valve replacement was carried on and one patient required left atrial thrombectomy. Overall mean aortic cross clamp time was 62.7 ± 7.4 min., being 52 ± 2.8 min. for isolated MVR+DVA procedures. Mortality rate was 0 % and there were no bleeding complications. 11 patients with atrial fibrillation preoperatively had atrial fibrillation postoperatively, except one who still is with NSR, 2 months after operation. Superior-septal approach is an effective alternative way in reoperations, in patients with small left atrium and it procedures requiring concomitant right atriotomy. Moreover, if further investigations prove this technique to be safe in respect to atrial dysrhythmias, it may be used routinely in mitral valve operations.

Biliary lithiasis, AAA and renal artery stenosis: Endoscopic/surgical combined treatment

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The Authors report a case of an aneurism of the abdominal aorta associated with biliary tract lithiasis in a gastrectomized patient. The need to simultaneously treat both the diseases is stressed. A technique which involves endoscopy during open surgery in order to prevent contamination is illustrated. The technique used together with other manoeuvres are part of a methodology which aims to broaden the indications to the treatment of abdominal diseases associated with vascular diseases, limiting the risk of infection of the prosthesis.

Eversion carotid endarterectomy and carotid to carotid crossover by-pass graft for occlusion of the innominate artery and severe stenosis of the left carotid axis

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A 69 years old male patient presented occlusion of the innominate artery with right vertebral to subclavian and common carotid artery steal syndrome; severe stenosis of the left carotid arteries; unstable angina pectoris. Therefore, it became necessary to correct the epiaortic lesions before the patient underwent aortocoronary by-pass owing to the risk of acute thrombosis of cerebral vessels during E.C.C. and also to improve the perfusion of the right internal mammary artery which could be used for myocardial revascularization. The operation begins with the bilateral exposure of the carotid axis through a left longitudinal and a low transverse cervical incision. On the left, an external carotid shunting is apposed between two longitudinal arteriotomies, the proximal one on the common carotid artery and the distal one on the carotid bifurcation. The section of the common carotid artery allows the eversion endarterectomy of the whole vessel, while an usual internal carotid endarterectomy is completed through the distal arteriotomy. The proximal longitudinal common carotid arteriotomy is utilized to perform the donor end-to-side anastomosis of a carotid-to-carotid crossover PTFE by-pass grafting. The previously sectioned left common carotid artery is reconstructed with an end-to-end interrupted 6-0 suture and the internal carotid arteriotomy is closed with a continuous 6-0 suture while the shunt is divided and removed. The graft is clamped at its origin. The flow in the left carotid axis is restored. The graft is placed in a tunnel obtained with finger dissection below the sternocleidomastoid muscle and beneath the thyroid muscles, and the recipient end-to-side anastomosis between the graft and the right common carotid artery is performed. Finally the flow is restored in the right carotid arteries. Intraoperative Doppler spectral analysis and postoperative angiographic controls show the success of the operation, with a bilateral normal perfusion.

Surgical aspects of abdominal tuberculosis (15 cases)

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The tuberculosis in abdominal localisation is very rare, its treatment is medical once the diagnosis is established. From 1983 to 1993, 15 patients with a mean age 32 (7-64 years) were operated for acute peritonitis (5), intestinal obstruction (3), and for abdominal mass (7). In 5 cases, the peritonitis was due to intestinal perforation and in one case to a mesenteric lymph node perforation. In the other cases the tuberculosis was peritoneal (9) and hepatic (2). The operation consisted in intestinal resection in 3 cases and multiple biopsies in all the cases. The treatment of abdominal tuberculosis is mainly medical, however some patients are first seen by surgeons for complication such a perforation of the bowel.

Laparoscopic treatment of perforated gastric ulcer

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The records of the last forty consecutive patients with perforated gastroduodenal ulcer disease treated at our department were reviewed. Twelve patients had a history of peptic disease. Six patients had had previous abdominal surgery. Initial treatment was conservative in one patient, by laparotomy in three patients and laparoscopic in the remaining thirty six patients. The conservatively treated patients had a big ulcer at the lesser curvature. Immediate laparotomy was performed once because of septic shock due to a posteriorly localised ulcer and twice because of surgeon's inexperience. Thirty six patients treated laparoscopically were so immediately in 31 and after peritoneal lavage via a Veress needle in 5 cases. The course of the laparoscopic intervention was uneventful in 33 procedures. In 19 patients simple ulcer closure was performed; in 14 an associated denervation procedure was performed. In three cases conversion to laparotomy was necessary: twice because of an ulcer located at the posterior site of the gastroduodenal junction and once because of a giant ulcer at the anterior site of the bulbus. Postoperative morbidity consisted of a Douglas abscess in one patient, a bronchopneumonia in one and a prolonged ileus in one patient. There was one enterocutaneous fistula. There was no other abdominal wall morbidity. Mean postoperative hospital stay was 7 days. Conclusion: Laparoscopic closure of perforated gastroduodenal ulcers is feasible, even if associated at an eventual

denervation procedure. Experience in advanced laparoscopic procedures is necessary and conversion advocated in cases of posteriorly localised ulcers. Influence on patient discomfort is less obvious then for other laparoscopic procedures because of the emergency character of the intervention.

Diagnostic laparoscopy

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Since 1990 sixty cases were diagnosed in our clinic laparoscopically. Of these sixty, 18 were males and 42 females in which the main reason for laparoscopy was to exclude gynaecological pathology. During diagnostic laparoscopy, if surgery was indicated, this was carried out through the laparoscope. Such surgery included, appendectomy division of adhesions, ovarian cyst and uterine polyp removal, lymph node and liver biopsy. During diagnostic laparoscopy when indicated open laparotomy was carried out. In 6 such cases 4 were for ovarian and 1 adenocarcinoma of the cecum. The advantages of the method are: 1. Short stay in the hospital (6-36 hours), 2. Early return to social activity), 3. Excellent cosmetic results

The laparoscopic second look

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A second look laparotomy after 12-72 hours is the safest and most accepted procedure after bowel resection for ischemic bowel disease. This defines the integrity of the bowel anastomosis, any extension of vascular thrombosis, and the presence of more segments of ischemic bowel. In order to avoid a second operation, we used laparoscopic minimal invasive techniques in three patients. One with acute arterial embolism, and two with acute venous thrombosis. A laparoscopic trocar as inserted, covered with a sterile glove, and left in the right lower quadrant of the abdomen following the resection of ischemic bowel. Under general anesthesia, 24 to 72 hours after the primary operation, the abdomen was insufflated with CO₂ gas via the trocar valve and the remaining bowel, and anastomotic integrity assessed by laparoscopy. Using this technique, a second laparotomy may be avoided.

Comparison of laparoscopic and conventional cholecystectomy for treatment of acute cholecystitis

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In the last 3 years the records of the 150 patients undergoing cholecystectomy (75 laparoscopic, 75 conventional) for acute cholecystitis were evaluated in the Gastrointestinal Tract Surgery Clinic of the Advanced Specialist Hospital, Ankara. These two groups are compared with respect to their peroperative postoperative early and late morbidity and mortality. The results are evaluated according to student's t test. There is not any statistical significant differences between two groups with respect to peroperative morbidity and mortality ($p > 0.05$). Post operative early and late morbidity differs in both groups which is higher in the conventional cholecystectomy group ($p < 0.05$). As a result, in the hands of experienced surgeons there is not any statistically significant difference with respect to perop. morbidity between open and laparoscopic cholecystectomy groups. There is a statistically significant differences in favour of open cholecystectomy group with respect to postoperative early and late morbidity and mortality and hospital stay.

Laparoscopic primary suture and omental patching in peptic ulcer perforation

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Diagnostic or therapeutic laparoscopic interventions are being widely used in acute abdomen cases. We present a case in which laparoscopic primary suture and omental patching was performed due to a perforated peptic ulcer. An 84 year old female patient who had complaints of peptic ulcer disease for 15 years we admitted to our hospital with a history of vomiting, severe abdominal pain and distention lasting for 3 days. On her initial physical examination, abdominal tenderness and distention was found. Her plain abdominal films revealed no pathological finding. On her endoscopic examination, a perforated ulcer on the anterior wall of duodenal bulb was found. Plain abdominal film taken after endoscopic examination revealed free air in the subdiaphragmatic space. With these findings an operation was planned. A 10 mm trocar from umbilicus and three additional 5 mm trocars were inserted. On the exploration of a 3 mm perforation on the anterior wall of duodenal bulb, about 1 l. of gastric content within the abdominal cavity and peritonitis were found. After the primary closure of the perforation with three 2/0 silk sutures, an omental patch was tied on the suture line. The ab-

dominal cavity was then irrigated with % 0.9 NaCl solution. No complications occurred after the operation. Her gastrointestinal motility was normal on the second postoperative day and oral intake was started.

FORUM 16

Laparoscopic atypic gastrectomy for leiomyoma

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We present a video from a 72 years old man who entered in the emergency room of St. John's Hospital of the University of Oporto-Portugal in September 1992 with hematemesis and melena. At the entrance, the hemogram showed a 6.8 gr/l hemoglobin and the endoscopy revealed an ulcerated and bleeding pseudopolypoid mass of the anterior face of the stomach. The patient had been controlled only with medical treatment. Ten days after, an endoscopy and endoscopy were performed and some biopsies were taken. The endoscopy showed no differences except that there was no hemorrhage. In the endoultrasonography we could see a well delimited tumor, 6 cm diameter, at the muscular layer of the gastric wall. Histologically the biopsies were compatible with leiomyoma and no malignant signs were detected. A laparoscopic atypic gastric resection was intended and successfully performed using the endo-GIA devices. The procedure took about 45 min and the patient had recovered well and went home on the 50 postoperative day. Histologically the specimen had confirmed a leiomyoma without malignancy. On the follow-up after one and three months, and at the year the patient was asymptomatic. The endoscopy at the three months showed no tumor recurrence.

Lymphadenectomy in gastric cancer

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Since 1980 we proposed that every patients operated with a curative intent would have a standardized lymphadenectomy associated to a sub-total or total gastrectomy. From January 1980 to December 1991, we operated 295 patients with a gastric carcinoma. In 166 cases (56.3 %) surgery was performed with curative intent. In 93 patients (56 %) a sub-total gastrectomy was performed and in 73 cases (44 %) a total gastrectomy. In all the cases an "R-2" type lymphadenectomy was used. Global morbidity and mortality rates of these two operations were statistically different. Global 5 year survival estimate for the whole series is 61.3 %. Univariate and multivariate analysis according to T-N (TNM classification), the number of positive nodes resected, and the relation positive/resected nodes, revealed statistically different outcomes. This kind of quantitative classification allowed identification of high risk groups irrespective of

site of nodal involvement. The video shows a total gastrectomy with lymphadenectomy in a fat man, demonstrative of the difficulties in this cases.

Abdominal surgical approaches in carcinoma of the cardia

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The surgical approaches and the limits of the resection on the esophagus and the stomach, are a matter of continuous discussion. Another point of discussion is the extension of the lymphadenectomy. On the video we can see a patient with an adenocarcinoma of the cardia, type III, on Siewert classification, submitted to a sub-total gastrectomy, 30 years before. The surgical approach is a median laparotomy with resection of the xiphoid and linear incision of the diaphragm. The lymphadenectomy include the fields 1, 2 and part of the 3, in the Japanese classification. The dissection is in bloc, on the retroperitoneal space from the coeliac trunk just to the mediastrium and than in the mediastinum just to the carina, including all the pre-aortic tissues. The reconstruction is done by esophago-jejunosomy Roux on Y with long loop and with stapler.

Adjustable silicone gastric banding by laparoscopic approach

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The adjustable silicone gastric band for morbid obesity consists of an inflatable balloon jointed to a self sealing reservoir by a thin tubing, allowing an accurate intraoperative calibration and an easy postoperative correction. Subsequently we choose to apply the same device by laparoscopic approach. The surgical procedure is carried out at a 14 mmHg CO₂ pressure. Five trocars, 2 of 5 mm diameter, 2 of 10 mm and 1 of 20 mm, are introduced into the upper abdomen. After retrogastric dissection using a Reticular Endograsper (USSC), the band, filled with 0.8 ml of saline, is introduced through the 20 mm trocar. The inflatable band is then positioned around the stomach and finally calibrated. The procedure is completed by subfascial positioning of the reservoir connected to the band catheter. Postoperative course is uneventful and characterised by the various advantages of laparoscopic surgery: minimum pain and respiratory distress, immediate mobilisation and prompt recovery.

Laparoscopic continent gastrostomy

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Introduction: A simple laparoscopic technique is described to create a tube gastrostomy obviating the need for open surgery in the patients with complete oesophagus obstruction. **Operating:** The patients lies supine on the operating table with his legs apart... 2 to 3 liters of carbon dioxide are insufflated into the peritoneal cavity... 4 trocars are inserted: - a 10 mm trocar is introduced in the umbilical region for insertion of the laparoscope - 2 other 10 mm trocars are inserted in the right and left upper quadrants for the passage of endoscopic Babcock forceps. - a 12 mm trocar is introduced 4 cm to the right of the umbilicus to allow insertion of an endo-GIA 60 stapler. A fold of gastric wall is elevated with the two Babcock forceps and a gastric tube is fashioned with the endo-GIA 60 stapler. The pneumoperitoneum is evacuated and the gastric quadrant trocar. The exteriorised end of the tube is opened and sutured to the skin of the abdominal wall. An inwelling catheter is inserted into the stoma. **Results:** 5 patients have been operated with this technique. The postoperative period has been uneventful in all cases and all patients could be discharged from the surgical ward by the third post-operative day. **Conclusion:** In advanced lesions which do not allow the passage of the endoscope, a laparoscopic tube gastrostomy can be performed avoiding open surgery in these debilitated patients.

Gastroesophageal diversion after gastric resection

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The problem of alkaline gastroesophageal reflux after gastric surgery (B1, B2, Gastroenteroanastomosis, Pyloroplasty, Cardiomyotomy) is presented on videotape. The gastroesophageal diversion technique is showed beginning from Billroth 2 gastric resection. The method is an interesting variation or rather it is a modification of classic method of duodenal diversion with the Y ansa of Roux. The operation consists in transposing the jaws of Y in such away as to put in derivation or diversion the esophagus or stomach as to the main axis of bowel which drains the biliopancreatic secretions. As to the classic diversion, you have to perform one more jejunojejunal anastomosis, but you obtain the not indifferent benefit of avoiding any biliopancreatic reflux on stomach and duodenum and benefit avoiding Roux ansa syndrome because the ansa which drains the stomach is anastomosed in end to side direction and it opposes the refluxreascended. It is possible to use an autonomous ansa of only 35-40 cm rather than 70 cm as well as it occurs with classic diversion.

Use of the urologic resectoscope in colorectal obstruction and palliation in poor risk patients

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Palliative treatment for carcinoma of the rectum was not rare. Reasons to defer surgical treatment are the presence of metastatic disease, refusal to accept colostomy or unacceptable medical risk. Traditional methods of palliation include proximal diverting colostomy, electrofulguration, and laser therapy. The use of a "rectum resector", similar to a cystoscope was reported. Preoperative preparation includes a thorough mechanical and antibiotic intestinal "prep" whenever possible. The patient is placed in the dorsal lithotomy position; the standard urologic resectoscope is then inserted into the rectum using the obturator. After the instrument is placed under vision through the constricting lesion, the resection is begun in much the same manner as a transurethral resection of the prostate. The object of the resection is to debulk the tumor and restore a capacious lumen to the rectum. The tumor is resected flat to the adjacent normal rectal wall. Resection is carried out circumferentially around the lumen until all obstructing tumor is removed. The irrigant carries the chips and blood into the colon and allows excellent visualization without anal dilatation. A few chips are gathered for pathologic examination. Using this technique, a colostomy was avoided in 15 patients no mortality or morbidity were observed. The average operative time was 35 minutes and the average hospital stay was 4 days. Palliation of constipation, bleeding and tenesmus has been good for periods ranging from three to six months. This procedure does not require anaesthesia, surgical assistants, new equipment or prolonged operative time. In selective instances, this transanal resection of rectal carcinomas offers excellent palliation.

Laparoscopic assisted right hemicolectomy for malignant disease

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The success of cholecystectomy has led to the development of other laparoscopic procedures, including colon resections. This video shows a laparoscopic assisted right hemicolectomy for a Duke's A adenocarcinoma of the ascending colon. Four trocars were located for retraction, mobilization and transection of the bowel. Ileocolic vessels were identified, ligated and resected. Terminal ileum right and transverse colon were taken out through an upper quadrant transverse 5 cm incision. The colon and the ileum were divided extracorporeally and a termino-

lateral mechanical anastomosis was performed. The bowel was reintegrated in the abdomen and mesocolon reconstructed. Postoperative course was uneventful and the patient dismissed on 8th postoperative day. We perform this procedure for adenocarcinomas of right colon non protruding the serosa, for cancers with metastatic irresectable diffusion and for benign disease not endoscopically resectables.

Videoassisted reversal of Hartmann's procedure without pneumoperitoneum

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More than 60 % of patients, who underwent Hartmann procedure, refuse to undergo reversal. We suggest a minimally invasive approach that can offer some advantages: less surgical trauma and postoperative pain, shorter postoperative ileus and hospital stay. Reversal is carried out with the patient in Lloyd-Davies position. After the colostomy and the descending colon mobilisation, a pursestring suture is performed and the anvil of the CEEA P is inserted in the proximal colon and temporarily abandoned in the peritoneal cavity. The telescope is then inserted at the periumbelical site through a 10 mm trocar tube. Laparoscopic devices are put into the peritoneum through the previous laparotomy in order to dissect the rectal stump, avoiding the need of pneumoperitoneum. The small bowel is mobilized out of the pelvis exposing the pouch of Douglas. The CEEA P is inserted trans anally and advanced. The stapler pressure against the apex of the rectal stump makes easier to recognize the site of the previous linear stapling suture. A special endoknife, patented by the Authors, helps the CEEA P trocar to punch the anterior wall of the rectal stump. Stapler is assembled under direct vision and a end to side anastomosis performed. Integrity of the anastomosis is checked by rectal instillation of dye. Four male patients, average age 64 years, underwent laparoscopic assisted reversal of Hartmann's procedure. All operations have been completed as planned in about 150'. Patient's mobilization was nearly immediate and postoperative pain almost absent. Peristalsis began after 36-48 hours and spontaneous canalization three of four days after surgery. The drain was removed on day 4. We didn't observe mortality nor morbidity. The patients were discharged on day 6. We conclude that this new laparoscopic procedure may lead to shorter hospital stay and increased patients acceptance preserving the same safety of the traditional open procedure.

Laparoscopic sigmoid colon resection

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Laparoscopic procedures are well accepted throughout the world. Laparoscopic colon resection is a relatively recent technique. It is safe, versatile and it offers a very smooth postoperative period. Its unique disadvantage is its high cost and longer operative time which it takes. We present in this videotape an elective sigmoid colon resection we performed in a 45 years old man for recurrent sigmoid colon volvulus. The operative time was 200 minutes. The colorectal anastomosis was made intraabdominally with an EEA 31 stapling device introduced per anus. The postoperative course was uneventful and the patient was discharged on the 4th postoperative day.

FORUM 18

The effect of increased intraabdominal pressure on deep venous thrombosis

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The effect of increased intraabdominal pressure due to CO₂ insufflation during laparoscopic cholecystectomy (LC), on the lower extremity deep venous system was investigated prospectively. Thirteen patients undergoing open and 30 patients undergoing LC were evaluated. During LC the intraabdominal pressure was increased to 14 mmHg. With color doppler ultrasonography, thrombus and flow in the deep veins were investigated preoperatively, and postoperatively on the eighth hour, first and seventh days in both the open and LC patients. In eight patients undergoing LC and three patients undergoing LC and three patients undergoing open cholecystectomy central venous pressure (CVP) was monitored during the surgical procedure. With color doppler ultrasonography no thrombus or change in flow pattern was demonstrated in the deep veins postoperatively in neither the open or LC groups. The difference between the CVP values before and after CO₂ insufflation was not significant ($p < 0.05$) in the LC patients. It is concluded that increased intraabdominal pressure during LC does not increase the risk of lower extremity deep venous thrombosis.

Does CO₂ pneumoperitoneum effect bacteraemia in experimental e. coli peritonitis?

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To perform pneumoperitoneum to the patterns with peritonitis is a question. Diaphragmatic stomata become patent when intraabdominal pressure increases. Therefore 14 mmHg CO₂ pneumoperitoneum may increase bacteremia in peritonitis. We examined the effect of pneumoperitoneum on bacteremia in animal model of peritonitis. 24 rabbits divided into three groups. 10⁸ CFU (colony forming units) E. coli obtained from human infection at Uludağ University Medical Faculty Microbiology Departments Laboratory injected intraperitoneally to group one (n:8). An identical bacterial inoculum injected for two hours followed by midline laparotomy for one hour to group two (n:8). An identical bacterial inoculum injected for two hours followed by a 14 mmHg CO₂ pneumoperitoneum for one hour. At all groups, growth values (GV) measured in from blood samples at the third and sixth hour with employed Bactec NR 730 system. This system is used for the measurement of CO₂ levels produced by the bacterias. Third hour of inoculum mean GV measured 147.5 in group one, 150.5 in group two and 154.8 in group three. Sixth hour of inoculum GV measured 129.0 in group one, 107.2 in group two, 107.3 in group three. In comparison of all groups, there was no significant difference at the results of growth values at third hour ($t: 0.227$, $t: 0.081$, $t: 0.127$, $p > 0.05$) and sixth hour ($t: 0.500$, $t: 0.471$, $t: 0.003$, $p > 0.05$) and sixth hour ($t: -0.500$, $t: -0.471$, $t: -0.003$, $p > 0.05$). As a result; 14 mmHg CO₂ pneumoperitoneum does not increase bacteraemia at experimental E. coli peritonitis in rabbits when compared with laparotomy and control groups 14 mmHg CO₂ pneumoperitoneum could be done safely at peritonitis.

Effects of duration of CO₂ insufflation on blood gases during laparoscopic cholecystectomy

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Effects of duration of CO₂ insufflation on blood gases during laparoscopic cholecystectomy were evaluated in 20 patients. The patients were divided into 3 groups according to the duration of operation. Arterial pCO₂, pO₂, pH and HCO₃ were measured preoperatively, intraoperatively and postoperatively. The results obtained in each group were compared with each other and with the control group and no significant difference was found.

A simple way for intracorporeal knotting during laparoscopy

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Using laparoscopy in advanced minimal invasive surgery has been necessitating the developments of new surgical techniques. Even in experienced hands watching the screen and working on two dimension may cause problems during intracorporeal knotting there have been some problems that arise from intraabdominal maneuvers during intracorporeal knotting. We described an easy way for intraabdominal knotting. Apart from being easy, this technique has also some advantages like preventing gas leakage from the port, spending less suture material.

The changes in acid-base and blood gas values in laparotomy and laparoscopic interventions

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Laparoscopic interventions are widely used today. Whether pneumoperitoneum made by CO₂ insufflation creates further problems, differing from laparotomy, has been subject of many studies. In this study open and laparoscopic interventions were compared regarding the acid-base balance and blood gas values in preoperative, peroperative and postoperative periods, between January, 1993-July, 1993. Each of the groups consisted of 30 patients and in both, the values were in normal limits in preoperative period. There was tendency toward acute respiratory alkalosis due to hyperventilation in both groups peroperatively but pH was never in abnormal limits and no statistically significant difference was observed ($p>0.05$). The only difference between two groups was observed in PO₂ values in peroperative and recovery period. PO₂ was significantly lower in laparoscopy group ($p<0.05$). There was no statistically significant difference after postoperative 24 hours. As a result, it can be said that laparoscopic interventions that require CO₂ insufflation are as safe and reliable as laparotomy except for pulmonary insufficiency cases in which postoperative hyposia can develop.

Physiological and metabolic responses of the organism to open and laparoscopic cholecystectomy

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This was a prospective study performed on 25 patients who underwent open cholecystectomy (OC)

and laparoscopic cholecystectomy (LC). As physiological responses: Respiratory function tests (Vital capacity, forced expiratory volume in 1s and 3s, peak flow) arterial blood gases and hemodynamic measurements (PAP, CUP, PCWP, CO, CI, MAP, HR, PAP) are evaluated. As metabolic responses: Acute phase reactants (CRP, ESR, C3) hepatic function tests (ALT, AST, TB, AP) are measured finally the analgesic requirement of LC and OC groups are evaluated. The statistical comparisons of both LC and OC groups are evaluated. As a result we found that: The deterioration of the OC was statistically significant ($p>0.02$). Same results are found in respect of arterial blood gases, measured by Astrup technique. Other parameters of the physiological and metabolic responses didn't give any statistical significance in the post op. period. The analgesic requirement of the LC group differences was less than the OC group, which was statistically significant ($p<0.002$).

Metabolic and endocrine changes after open and laparoscopic cholecystectomy

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Laparoscopic cholecystectomy, initially performed in France in 1987, has become a popular operation, has many advantages. We have compared metabolic and endocrine changes after laparoscopic cholecystectomy (n:20), with those after open cholecystectomy (n:20). Venous blood samples were taken before operation, just after and 24h later postoperatively. Blood levels of glucose, cortisol, adrenocorticotrophic hormone (ACTH) and beta endorphine were analysed. The durations of operation, amount of hemorrhage, mean hospital stay were significantly shorter in the laparoscopic cholecystectomy group ($p<0.05$). Pain scores and analgesic usage were significantly decreased in the laparoscopic cholecystectomy group ($p<0.05$). However the results were not significantly different between the two groups ($p>0.05$), the metabolic and acute phase responses (such as hyperthermia, plasma cortisol, ACTH and glucose levels) were less after laparoscopic cholecystectomy compared with open cholecystectomy. Beta endorphine concentrations were less in the open cholecystectomy group than laparoscopic cholecystectomy group after surgery.

New standards in laparoscopic surgery

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Fifty one video-endoscopic operations were performed in Dörtöyl State Hospital. Fifty of them were cholecystectomies and one of them was a primary suture for duodenal ulcer perforation. The patients were separated in two groups: In the first group

(n:20) the operations were completed with 4 trocars in 16 patients and 3 trocars in 4 patients. Intraabdominal CO2 pressure was 12-14 mmHg. The mean operation time was 75 minutes. Two of them were shifted to open laparotomy. In the second group (n:30) 4 patients had acute cholecystitis and the operations were completed with 3 trocars. Additional procedures (hernia repair, appendectomy) were performed in 2 patients. CO2 pressure was 8 mmHg and mean operation time was 53 minutes. It was concluded that 3 trocars were enough and CO2 pressure had to be 8 mmHg.

FORUM 19

Laparoscopic truncular vagotomy and pyloromyotomy

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The best method for laparoscopic treatment of duodenal ulcer is still a matter of controversy. A 34 years old patient with a duodenal ulcer (associated with a bulb deformation) was treated by laparoscopic truncular vagotomy and pyloromyotomy. A four trocars approach was used and no complications were detected in the post-operative period. A ninety percent reduction of the gastric secretion was observed three months after the operation. One and a half years after the procedure the patient remains in the Visick grade 1.

Posterior truncal & anterior highly selective vagotomy

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The authors demonstrate a laparoscopic posterior truncal and anterior highly selective vagotomy. A 42 year-old man with intractable duodenal ulcer pain for last three years despite the regular anti-ulcer therapy, was operated. Gastroduodenoscopic examination prior to operation showed active ulcer and deformation of duodenum due to chronic ulcer disease. A nasogastric tube and urinary catheter were placed before starting operation. Intra-abdominal pressure was maintained at 14 mmHg. Five trochars were inserted, first 3 cm above the umbilicus, one on the left rectus muscle at the same level of first trocar, one just right to xyphoid, one on right and one on the left mid-axillary line. First, lesser sac was entered and once posterior vagal trunk was identified between right crus of diaphragma and postero-lateral surface of esophagus, it was dissected free from the other structures, clipped and cut. In the second step, "crow's foot", innervating antrum and pylorus, was identified and all neurovascular bundles above the heel of "crow's foot" entering the stomach on the lesser curvature side were dissected free, clipped

and cut. By this procedure, anterior Laterjet and its antral and pyloric branches (crow's foot) were preserved and rest of the stomach was denervated. Patient recovered very well and discharged on the fourth postoperative day. Now, a month later he has been symptom free and his active ulcer is healed on endoscopy.

Laparoscopic bilateral truncal vagotomy and gastrojejunostomy

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The authors demonstrate a laparoscopic bilateral truncal vagotomy and gastrojejunostomy. A 64 year old man with recurrent symptoms of gastric outlet obstruction due to chronic duodenal ulcer disease, was operated. Preoperative radiologic and gastroduodenoscopic investigations showed moderate obstruction of gastric outlet and deformation of bulb of duodenum. Nasogastric aspiration and parenteral alimentation was started three days before operation. Five trocars were inserted. First 3 cm above the umbilicus for laparoscope, one on the left rectus muscle at the same level of first trocar, one just right to xyphoid, one on the left and one on the right mid-axillary line. Firstly, the lesser sac was entered through pars flaccida over the caudate lobe of liver. Once the posterior and anterior vagal trunks were identified between the right diaphragmatic crus and posterolateral aspect of esophagus and between left diaphragmatic crus and anterolateral aspect of esophagus respectively, they were dissected free from the other structures, clipped and cut. In the second step, a jejunal loop 20 cm distal to Treitz was pulled up and held together with anterior wall of the most dependent part of stomach by an endobagcock. Two small holes were created both on the jejunum and stomach to be able to insert the legs of endo-GIA. A 6 cm long stoma created by firing endo-GIA. Lateral opening was closed by endo-TA. The stomach was filled 300 ml saline with metilen blue to check any leakage. Post-operative period was uneventful and patient was discharged on the fifth postoperative day.

Laparoscopic posterior truncal anterior highly selective vagotomy

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Proximal gastric vagotomy is a physiological operation for peptic ulcer. Vagal denervation of parietal cells results in a decrease at a rate of 70-80 percent in basal acid output, and 50-60 percent in maximal acid output. Since antrum and pylor was not denervated, any derangement in function of gastric emptying does not occur. Overall morbidity is lower than 0.03 percent. In experienced hands, recurrence rate of ulcer is less than 10 percent. We had performed laparoscopic posterior truncal and anterior highly se-

lective vagotomy in a 44 years aged man who had incurable chronic duodenal ulcer, for ten years. Under general anaesthesia, following peritoneal insufflation 5 trochars for video-camera, retractor, babcock clamp, endograsper and dissector were inserted. Preserving the antral and pyloric vagal branches, only the fundus and corpus branches of anterior vagus was cut as for PGV. Truncal vagotomy was performed for posterior vagus. The patient was discharged without any complication at postoperative sixth day.

Total truncal vagotomy by thoracoscopy

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More experience in thoracoscopic procedures lead to further technique like the thoracoscopic total truncal vagotomy as it will be presented in our video.

FORUM 20

Total esophagectomy for a rare giant tumor

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İst. Tıp Fak. Genel Cerrahi Anabilim Dalı, Turkey

Here we reported a 72 year old female patient. Her coas progressive dysphagia for solid food since 3 months. Physical examination and laboratory tests revealed no pathological finding. Barium meal graphy demonstrated extramural impression on the esophagus extending from cervical region to cardia. Computerized tomography revealed a mass originating from posterior wall of the esophagus at the cervical level. The size of the mass enlarged at lower levels and reached a diameter of 6 centimeters at the thoracic part of the esophagus. The tissue planes between the mass and the prevertebral fascia and atrium were not clear suggesting possible invasion to these structures. At the endoscopy, mucosa was intact but there was a submucosal mass extending from cervical esophagus to cardia. Preoperative diagnosis was leiomyosarcoma of the esophagus. She underwent right thoracotomy and total esophagectomy and faringogaostomy. Histopathological examination revealed undifferentiated lymphoma.

Reconstruction of the cervical esophagus with free jejunal graft by AVCI's procedure

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İ.Ü. İst. Tıp Fak. Genel Cerrahi Anabilim Dalı, İstanbul-Turkey

The reconstruction of the cervical esophagus and hypopharynx by using a jejunal autograft is one of the most popular method. The identical calibry, satisfac-

tory peristaltism and anatomic vascular properties of this segment are the reasons for to choose of jejunal loop in the reconstruction of the cervical esophagus. The revascularization of the jejunal loop transplanted to the neck is an important point of the operation. The development of the microsurgical techniques has a positive role. In general, two microvascular anastomosis for graft revascularisation is sufficient. But since tree years, we sistematically use four microvascular anastomosis (two arteries, two veins) for reduces the risk of graft necrosis and promotes the healing of the anastomoses. In our service, we employed this technique on twenty two cervical esophageal and hypopharyngeal malignancies cases with very satisfying results. This film shows our method conducted to a patient with cervical esophageal cancer.

Gastroepiploic pedicle flap for cervical oesophageal reconstruction

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Some types of tissues of digestive tract as stomach, jejunum, ileum and colon can be used for hypopharynx and cervical oesophagus reconstruction, as free grafts. These methods are experimented and fiables, but circumstances exist, as atherosclerosis or radicle lesions, where revascularization becomes difficult. Based on a cadaveric study we use a gastric tube from the greater curvature nurrished by the left gastroepiploic vessels and transposed to the neck as a pre sternal pedicle flap. The authors have no references registered from this technique in literature. under this technique one female and three male (aged 29, 72, 74 and 76 respectively) were treated. They showed cervical oesophageal stenosis for tumoral relapse and radicle lesion of the neck. All of them underwent laryngectomy and radical cervical lymphadenectomy 15 months ago for adenoid cystic carcinoma in the first case; in the others left three, four years and 13 months ago for larynx adenocarcinoma. All of them were submitted to complementary radiotherapy. A surgical excision (palliative) of the tumour mass and the stenosed oesophagus was performed. The last one was replaced by gastric flap from the greater curvature with 7-3 cm mean lenght and 2 cm diameter with the correspondent omentum. This gastroepiploic flap was used as a pedicle one and bloodsupplied by the left gastroepiploic vessels. These were left in a left paramedian presternal incision. In all of them a safety supplementary distal venous anastomosis was performed. No per or post operative complications were observed chiefly partial necrosis flaps. They all began with a well tolerated oral food on the 11th day and anti-H2 therapy. The above mentioned female and the second male died on the 4th and 5th months; the third patient died on the 11 month respectively by relapse and tumoral

dissemination. With a follow-up of 13 months the last patient is still alive and swallows with no dysphagy. Considering the general condition of the patients and the palliative character of these surgeries, despite the residual anaesthetical deformation and the need of taking anti-H2 this technique presents its advantages: it is not dependent from the arterial anastomosis; it has a shorter operative time; it reveals itself easier to execute than free flaps. Despite this is a small series we conclude that this method is an effective and fiable one and is indicated for palliative surgery in cervical oesophageal reconstruction.

FORUM 21

Surgical treatment of perianorectal fistulae in Crohn's disease

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The perianorectal fistulae which arise in Crohn's disease, represent an important therapeutic problem which receives little attention in the literature. The frequency of perianal fistulae is variable, ranging from 14 % in cases with disease affecting the ileon and 100 % when the rectum is involved. The aetiopathogenesis of the perianal fistulae in Crohn's disease is still under discussion, but we share Hughes opinion which differentiates the fistulae produced at the site of disease from those caused by the irritant action of the diarrhoea during the course of the disease. Indeed, the fact that the perianal manifestations of the disease may be the first sign to indicate a reactivation of Crohn's disease at intestinal level seems to have been confirmed. Nevertheless, no agreement yet exists in the literature as to the therapy indicated in the diverse situations created by perianal Crohn's disease. Due to these doubts, we find that no clinical classification of the perianal fistulae in Crohn's disease exists, which would serve as a guide to the choice of therapy. In this video we propose a clinical classification through which our surgical procedure is revealed.

Surgical technical problems on colorectal polyposis

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The showed videotape deals with some surgical technical problems about colectomy with ileus pouch-rectoanal anastomosis. Problems, that are peculiar to this operation can be resumed in the following five points:

1. The extension you have to do at the exeresis.
2. The rescue of nerve and hypogastric superior and inferior plexus.
3. The preparation of ileus pouch.
4. The type of ileus pouch - anal anastomosis.

Some surgical sequences and some schematic drawing are presented to showing surgical problems and technical solutions that you can use in order to make easier the operation either in the case of colorectal polyposis or IBD.

Endorectal approach of rectocele using the linear cutter stapler

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Rectocele presents as a protrusion of the anterior wall of the rectum into the vagina. In some cases, rectocele is associated with outlet obstruction. Surgical treatment is, in these cases mandatory. We describe here a new technique of endorectal repair of rectocele using a stapling device. The patient is placed in the jack knife position. Endorectal exposure is obtained with retractors and the rectocele is pulled in the canal anal. Excision of the rectocele is then performed with 2 or 3 application of the linear cutter device. The suture line is then reinforced with a 2/0 vicryl running stitch. This procedure mixes a transverse suture of the rectovaginal septum and a resection of the mucosal excess. Eight patients have been operated between 1988 and 1990 after a full proctological and physiological assesement. No severe postoperative complication occured. With a 3 year follow-up, 4 patients are symptome free, 3 are improved and 1 has no change in symptomes. Our experience with these 8 cases suggests that endo anal repair of rectocele using the linear cutter stapler is both a simple and effective mean of dealing with outlet obstruction when associated with a rectocele.

Laparoscopic appendectomy and adhesiolysis in the material of the Elisabeth Hosp

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Elisabeth Hosp. Dep. Surg. Budapest, Hungary

We like to interpretate on video our pract ic es on the field of laparoscopic appendectomy and adhaesioly-sis, wich seem to be safe and applicable methods.

Laparoscopic appendectomy

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In this video, we are presenting a case of laparoscopic appendectomy who underwent drainage of a appendieular absces three months ago. Laparoscopic appendectomy can be saley performed even in the presence of adhesions with minimal patients discomfort.

Reparation of postoperative abdominal wall hernia. Three types of use of prolene mesh

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A film with three reparations of incisional hernia is presented:

1. Linchtenstein's technique performed with pre-visceral mesh in medial incisional hernia.
2. Modified Albanese's technique with pre-peritoneal mesh edge defect fixed.
3. A double previsceral mesh which covers great defect of abdominal wall, suturing two standard great size pieces.

Laparoscopic preperitoneal extraperitoneal prosthetic repair of inguinal hernias with balloon dissector

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In recent years, operative laparoscopy in general surgery has emerged as a viable alternative to traditional open techniques. Because of the success reported by Stoppa and his colleagues with the preperitoneal prosthetic repair for inguinal hernias, this technique has been adapted for use laparoscopically. A large anatomic working space is created between the abdominal wall and peritoneum using the balloon dissector which is expanded with saline solution. This space is then insufflated and the propylene mesh can be positioned over the hernia defect while the peritoneum remains completely intact. The extraperitoneal approach avoids the risk of adhesions and complications associated with entry into the peritoneum. The use of balloon dissector into the preperitoneal space reduces operating time with a wider dissection.

Extraperitoneal endoscopic inguinal hernia repair

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The objective of the extraperitoneal endoscopic approach and inguinal hernia repair is to combine the well-known advantages of minimal invasive surgery with the proven results obtained by the Stoppa technique. In the period between October '92 up to March '94, a total of 301 patients (mean age: 56y) were treated for hernia repair. All patients were operated on by the extraperitoneal endoscopic technique,

irrespective of whether they had a direct, an indirect or a recurrent hernia. 220 patients underwent a bilateral repair. 138 patients presented previous surgery in the lower abdomen, including 55 recurrent inguinal hernias. 563 polypropylene meshes were placed preperitoneally. The mean operating time was 45 minutes for unilateral and 57' for bilateral repair. Special new instrumentation has been developed and is used by the authors. Up until March '94, no peroperative or major postoperative complications occurred; no recurrence has been seen. In conclusion, this technique is safe. It combines the well-known advantages of the use of a mesh with those of minimal invasive surgery. Most important however is that the peritoneal cavity is not opened.

Laparoscopic hernia repair

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Between April 1993 and April 1994 10 patients with inguinal hernias were operated on laparoscopically. There were 9 male and 1 female patients. Their overall mean age was 52 years, range 15 to 71. There were 6 indirect 3 direct and one recurrent direct inguinal hernias. This study has been performed to evaluate the safety and efficacy of laparoscopic hernia repair. Patients were excluded for whom general anesthesia had a high risk or who had incarcerated or strangulated hernias. The average duration of operation was 70 minutes. Complication occurred in one patient, but there were no recurrences during a median follow-up 6 months (4-6 months). The median postoperative hospital stay was 2.5 days and for return to normal activity 5 days. Although long-term follow-up has not yet available, laparoscopic inguinal hernia repair is an effective operation with low morbidity. Long-term follow-up is needed to determine the durability of the repair.

Extraperitoneal laparoscopic hernia repair

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The transperitoneal approach for laparoscopic hernia repair is expensive relatively invasive and requires pneumoperitoneum. We performed 12 laparoscopic hernia repairs (7 unilateral indirect, 2 bilateral direct, 1 bilateral indirect. 1 femoral, 1 recurrent direct) using. Preperitoneal Balloon Distension System. Hernial sac was dissected and returned to the abdominal cavity or splitted by Zigg technique. And a 10x20 cm Marlex mesh was placed over the defect without and sutures or staples. All patients were discharged on the second postoperative day. Extraperitoneal approach limits the CO2 insufflation and protects the intraabdominal organs. Therefore, it is a safe, easy and rapid technique.

Laparoscopic inguinal hernia repair

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During one year period between February 1993 and February 1994 laparoscopic hernia repair was performed in 21 cases. There were 17 male and 4 female patients with an average age of 39 (20-65). The hernia type was indirect hernia in 16, direct hernia in 3 and recurrent hernia in 2 cases. Two of our patients had bilateral hernia for a total of 23 hernia. We used transabdominal approach in 20 and extraperitoneal in one case. A large mesh was placed in 18 hernias, 3 were managed by internal ring closure and 2 hernia were repaired by a two-level repair; Dudai butterfly+mesh. Additional laparoscopic procedures were performed in 3 cases consisting of bilateral varicocele ligation, cholecystectomy and tubal sterilisation. Complications were seen in 5 cases; 2 hydroceles, 2 nerve traumas and 1 scrotal edema. We have seen no recurrences during this short follow up period. We believe that laparoscopic hernia repair should be done on an experimental basis in selected centers.

Gilbert's hernia repair (sutureless prosthetic repair)

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The Gilbert's technique for hernia repair is a prosthetic Hernia repair technique. It is a Sutureless repair, in which no suture is used except for the one of the external oblique aponeurosis. The operation is performed under local anesthetic block of Lidocaine and Bupivacaine. After skin incision the external oblique aponeurosis is opened. The cremasteric fascia is opened and its medial flap excised. The internal spermatic fascia is also opened. The hernia sac is isolated. After reduction of the peritoneal sac, a Prolene plug is inserted through the internal ring, and the posterior wall is reinforced with a second swatch of Prolene Mesh. Both swatches of mesh are held in places by the body's internal hydrostatic forces. Being sutureless no tension is placed on any layer, no holes have done on muscles that are intact. This procedure has been used in 1152 inguinal hernia repairs. The results have been satisfactory: 3.6 % of complications and 0.26 % of recurrences.

FORUM 23

Laparoscopic vagotomy and antrectomy with a Billroth II anastomosis

F. N. Schutte

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Laparoscopic surgeons have eagerly awaited the development and availability of the powered endo GIA 60 and powered TA 60 (United States Surgical Corporation, Connecticut) stapling devices. Recently, (1993) three laparoscopic vagotomy and antrectomies with a Billroth II anastomosis were performed for the definitive treatment of refractory peptic ulcers. Preoperative assessment included gastroscopies with biopsies and barium meal. No peri-operative mortalities or morbidities occurred and all patients experienced minimal post operative discomfort. Normal feeding resumed within 2 days with patients finally being discharged within 4 days. Gastrographin swallow was routinely performed post operatively. As familiarity and experience with the instruments has grown, average operating time has been reduced to 85 minutes. The excellent results observed thus far have led me to believe that the laparoscopic approach will become the procedure of choice in the hands of experienced laparoscopic surgeons. As our experience in this field increases with the ongoing development of laparoscopic instruments, the future prospects for laparoscopic surgery are infinite. The video provides a detailed visual on the procedure.

Laparoscopic Billroth I a Billroth II operations

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Lecture and Video-Presentation: Between October 1993 and February 1994, we performed three distal stomach resection operations laparoscopically (twice Billroth II anastomosis, once Billroth I anastomosis combined with truncal vagotomy). The first patient, 83 years old, presented a stenosing, bleeding, prepyloric, malignant Non-Hodgkin Lymphoma. The second patient, 82 years old, presented an ulcerated, non-malignant Leiomyoblastoma of the antrum. Due to the histological type of the tumors a radical lymphadenectomy was not performed. The third patient presented a penetrating, prepyloric ulcer combined with an almost complete stenosis of the pylorus. In all three cases, it was possible to follow the principles of conventional open surgery. The partially resected stomach (two thirds) was removed in a lap sac through a 3.5 cm intraumbilical incision. The anastomoses were all stapled intracorporally, no intraabdominal complications occurred. However, the first patient died on the 21th postoperative day from

cardio-pulmonal failure, the second and third patient were discharged feeling well on 11th/12th postoperative day.

Laparoscopic Billroth-II gastrectomy

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Totally intraabdominal laparoscopic Billroth-II gastrectomy was performed on eight patients. All were male with a mean age of 56 years. Indication for surgery was benign gastric ulcers not healing with medication or complicated by bleeding in 7 cases and combined duodenal and gastric ulcer in one case. The procedure was performed through five ports. The distal two thirds of the greater curvature was mobilized using sharp dissection supplemented with cautery. Large vessels were secured with endoclips before being divided. The duodenum was transected with a single application of the Endo-GIA (Autosuture, USSC). Resection of the stomach and subsequent gastrojejunostomy was achieved with Endo-GIA staplers. The stomach was removed by extending one of the ports to 2.5 cm. The mean duration of the procedure was 240 minutes (range 150 mins to 280 mins). One case was converted to open surgery because of technical difficulty. Postoperative recovery was rapid with minimal morbidity. The average hospital stay was six days (range four to twelve days). One case developed partial gastric outlet obstruction due to anastomotic edema which resolved with conservative treatment. All the other patients experienced a dramatic postoperative recovery with immediate mobilization and enteric feeding on the third postoperative day. Laparoscopic gastrectomy is a feasible operation for benign gastric ulcers. However, more data on its safety and more ergonomic instruments to facilitate the procedure are needed before it can be recommended as a method of choice.

Laparoscopic vagotomy and gastroenterostomy

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The aim of this presentation is to assess feasibility and safety of vagotomy and gastroenterostomy under laparoscopy.

The patient (70M) who had been suffering abdominal pain and nausea and been diagnosed to have peptic ulcer complicated with pyloric stenosis. Technically 5 ports were utilized with the camera placed at umbilical port. The left lobe of the liver was mobilized and gastro-esophageal junction was dissected. The anterior and posterior vagus was found and divided. A loop of the proximal jejunum 20-25 cm away from treitz of ligament was brought up antecolically to the anterior stomach. Two stay sutures were used to anchor the stomach to the jejunum at the site of the

proposed gastrojejunostomy. A side to side gastrojejunostomy was fashioned with an endo-GIA (6 cm). The defect in the stomach and jejunum was closed by intracorporal suturing with propylene 2/0. The operation lasted 3.5 hours and patients recovered uneventfully and were discharged on the 4th postoperative day.

Laparoscopic highly selective vagotomy and laparoscopic pyloroplasty

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Lecture and Video-Presentation: From May 1993 we performed 13 highly selective Vagotomies laparoscopically. Ther selected for this procedure presented a 2 to 21 year history of unsuccessful medical treatment (in 3 patients complicated by recurrent ulcer-bleeding, in 2 patients by duodenal ulcer perforation; in one of these two patients the perforated ulcer was treated by suturing laparoscopically three month prior to the vagotomy). In one patient the vagotomy was combined with a laparoscopic pyloroplasty (Holle). In all cases, it was possible to follow exactly the principles of conventional open surgery for the anterior and posterior vagus-nerve.

FORUM 24

Prosthetic material in abdominal surgery

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There are some situations in abdominal surgery, in which the organic tissues do not offer the proper guarantees, and some other times in which we just want to increase the biological resistance of them. Several prosthetic materials have been used to solve these problems. In this film, we are going to expose some of these procedures, only based on our experience. We use prosthetic material in Gastrointestinal Surgery; to correct hiatal hernia by pexia with round ligament, when this one does not exist. To protect sutures to avoid dehiscences, using "Biological glue" or intraluminal material which will be released later, and in colonic surgery, by using biodegradable rings of polyglycolic acid. Surgery of solid organs: to suture parenchyma or to protect them with hemostatic material, to use absorbable mesh in broken organs and to place capsulas of infusion to treat tumors. Bilio-Pancreatic surgery: to protect sutures and to place stents in bilio-digestive anastomosis. Digestive vascular Surgery: prosthesis of PTFE in vascular derivations in bleeding Portal Hypertension, or intrahepatic prosthesis in this pathology. Surgery of the abdominal wall; different prosthesis to treat incisional hernia.

Laparoscopic surgery; prosthetic material to treat inguinal hernia and also in incisional hernia. We make a summary of the different application of prothesis in abdominal hernia.

The primary arthroscopy in injuries of the ankle joint

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The film shows the techniques of primary arthroscopy of the ankle joint the indication is the modern standart likewise in knee arthroscopy. Indication for arthroscopy is established on hemarthros, exclusion of accompanied lesions of osteochondral fractures and draduation of outerligament ruptues. The ultrasonic is an essential part in diagnostics and "held" radiograms are no longer necessary because the sprained ankle can be demonstrated on videomonitor. We perform the arthroscopy in local or general anaesthesia and prefer a 5 mm arthroscope with 30o telescope and usually without distractor. The findings and surgical interventions are filmed entirely for documentation. 89 % of all patients presented a hemarthros with different forms of outerligament ruptures, 32 % showed additional osteochondral fractures and loosened flakes. 9 % out of this group had to be operated transarthroscopically or by arthrotomy by subluxation of the foot more than 20o. The primary arthroscopy permit a direct and graduated operative or conventional treatment.

Functional endoscopic sinus surgery for the treatment of chronic sinusitis

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Functional Endoscopic Sinus Surgery is based on the principle that, most infections of the larger sinuses are rhinogenic and are commonly caused by untreated anterior ethmoid disease. The relief of the obstruction caused by the anterior ethmoids, will provide adequate ventilation and drainage of the larger sinuses and will permit the resolution of the disease in the maxillary and frontal sinuses. The combination of coronal plane computed tomography and nasal endoscopy has proved to be excellent for the evaluation of the lateral nasal wall. Here two cases; first being an ethmoidofrontal mucopyocel and the second being a chronic bacterial sinusitis treated by FESS are presented. Messerklinger technique that is an anterior to posterior approach and accepts the anterior ethmoids as the target area is used.

Laparoscopic management of peritoneal dialysis catheters

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Despite the increased use of the Tenckhoff catheter for peritoneal dialysis and the standardization of surgical techniques, this device is still associated with a significant number of complications. The most frequent mechanical complication is outflow obstruction which necessitates catheter removal or replacement. Conservative attempts at catheter salvage are usually unsuccessful when outflow obstruction occurs. In our series, we used laparoscopic techniques for replacement or redirection and adhesiolysis of a non-functional catheter in 4 patients. A follow-up of 6 months showed functioning catheters in all patients. A few reports have described the use of laparoscopy in the management of Tenckhoff catheters in small groups of patients. We conclude that this technique is useful in managing patients with a nonfunctional Tenckhoff catheter.

Extraction of two surgical sponges with laparoscopic intervention (two cases)

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Laparoscopic surgical intervention became the choice of procedure for most patients with gallbladder disease and for the disease of the abdominal and thoracal organs since its first application in 1987.

Since March 1992, we have been performing laparoscopic interventions for diagnosis and the treatment of the symptomatic gallbladder disease. Since that time 2 surgical retained foreign bodies (surgical sponges) were diagnosed and operated upon successfully. The first patient had cholecystectomy for 2 years ago and now operated on because of cystic stump syndrome. The second patient had a celiotomy because of abdominal trauma and now operated on because of symptomatic gallbladder disease. A foreign body (Surgical sponge) is found too. This op. is recorded which will be shown.