

uncinate process and communicating with a normal main duct through a thin branch-duct. Peroperatively, ultrasound confirmed both localization of the dilated duct and absence of main duct abnormality. A Kocher manoeuvre was done and the medial edge of the uncinate process was progressively freed from the superior mesenteric vessels. Inferior pancreatico-duodenal arterial arcade was preserved to avoid ischemia of the third portion of the duodenum. The papilla was identified by palpation through the duodenal wall and the course of the main pancreatic duct was located by ultrasound. Pancreatic transection was progressively done to separate uncinate process from the upper part of the pancreatic head. The communicating duct was transected close to the main duct. Frozen section was done on both communicating duct and dilated duct to ensure that resection was complete and no invasive carcinoma was present. The communicating duct was sutured and the resection cavity was filled with an omental flap. Postoperatively, the patient developed transient pancreatic external fistula which healed within 3 weeks. Pathologic examination confirmed complete resection of a branch-duct border-line IPMT. One year later, the patient had no symptoms and magnetic resonance pancreatography revealed neither tumor recurrence nor main duct stenosis. Resection of uncinate process is an acceptable option for treatment of benign branch-duct IPMT limited to uncus. This procedure avoids some drawbacks of pancreaticoduodenectomy and could increase the possibilities of pancreatic preservation if subsequent surgery is needed for tumor recurrence.

FV 5.08
LAPAROSCOPIC SPLEEN PRESERVING DISTAL PANCREATECTOMY: A POSTERIOR APPROACH

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We present an illustrative video of a distal pancreatectomy, preserving the spleen and its blood vessels using a laparoscopic approach. The indication was a presumed pancreatic neuroendocrine tumor, based on an arterioscan. The laparoscopic distal pancreatectomy (or spleno-pancreatectomy) could be carried out identically to open approach. Because of technical differences when using laparoscopy, we feel an anterior approach does not fully exploit the advantages of this technique. We present a video with a posterior approach which is particularly suited for distal pancreatectomy.

FV 5.09
LAPAROSCOPIC TREATMENT OF PANCREATIC PSEUDOCYSTS

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Background. Acute pancreatic pseudocysts may be treated in different therapeutic approaches: endoscopy, percutaneous drainage, open and laparoscopic surgery. The benefits of laparoscopic surgery should be considered in the moment we treat a pancreatic pseudocyst.

Objective. To describe technical aspects and results of laparoscopic treatment of acute pancreatic pseudocysts.

Population and methods. We present two cases of laparoscopic treatment of pancreatic pseudocysts. Case 1: A 48 year-old male patient with a 10 cm pancreatic pseudocyst. The surgery was carried out 8 weeks after the acute pancreatitis. A Roux-en-Y cystojejunostomy was performed. Case 2: A 63 year-old male patient with a 13 cm pancreatic pseudocyst. The laparoscopy was performed 10 weeks after the pancreatitis. A cystogastrostomy was carried out. In both cases, laparoscopic US was done.

Results. There were no conversions to open surgery. Case 1: Operating time was 150 minutes. The patient was discharged at day 4 without postoperative complications. The patient is free of recurrence in the 36 months follow-up. Case 2: Operating time was 100 minutes. Length of stay was 3 days without complication. The patient is free of recurrence in the 18 months follow-up.

Conclusions. Laparoscopic treatment of pancreatic pseudocysts can be safely performed, reproducing all maneuvers we used in the open approach.

FV 6.01
EXTENDED RIGHT HEMIHEPATECTOMY, BILE DUCT AND PORTAL VEIN RESECTION FOR HEPATIC ALVEOLAR ECHINOCOCCOSIS

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Background. Hepatic alveolar echinococcosis is a rare disorder with infiltrating growth behavior. Often, these lesions infiltrate the bile duct or main vascular structures and make the surgical treatment difficult.

Patient. Here, we present a 27 year old female patient with jaundice due to bile duct compression of a hepatic alveolar echinococcosis. CT imaging

demonstrated an alveolar echinococcosis lesion in segment 4b & 5 with infiltration of the portal vein and right hepatic artery. The left liver was supplied by an aberrant left hepatic artery originating from the left gastric artery.

Technique. The video shows the technical aspects of an extended right hemihepatectomy, bile duct and portal vein resection for hepatic alveolar echinococcosis. The right extended hemihepatectomy was only possible because of an aberrant left hepatic artery which bypassed the echinococcosis lesion. The operative strategy was similar to that of a Klatskin tumor. Due to infiltration of the portal vein bifurcation, the left portal vein was resected and anastomosed with the portal vein. After completion of the extended right hemihepatectomy, two separate bile ducts were implanted as hepaticojejunostomy.

Discussion. Although hepatic alveolar echinococcosis is a non-malignant disease, the cancer-like growth of this disorder requires often complex liver surgery to achieve complete disease clearance.

FV 6.02
RIGHT TRISEGMENTECTOMY WITH RESECTION AND RECONSTRUCTION OF LEFT HEPATIC VEIN FOR INTRAHEPATIC CHOLANGIOCARCINOMA UNDER HYPOTHERMIC TOTAL VASCULAR EXCLUSION

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The video shows a right trisegmentectomy with resection and reconstruction of the left hepatic vein, for an advanced intrahepatic cholangiocellular carcinoma. The tumor, deeply located in the central segments of the liver, involved all the 3 major hepatic veins. The extra hepatic bile duct was removed. The portal trunk and the hepatic artery were sclerotized. The right branches of portal vein and hepatic artery were sectioned. A partial dissection of the lateral aspect of the retrohepatic vena cava was accomplished with the interruption of some accessory hepatic veins. Due to the huge mass of the tumor and involvement of the main hepatic veins, after sectioned of the portal pedicles of segment 4 on the right of the umbilical portion, an extended right trisegmentectomy under hypothermic total vascular exclusion was completed and left hepatic vein was resected and reconstructed end-to-side to inferior vena cava (total time of hypothermic ischemia: 40 minutes). Accurate dissection of lymph nodes and perineural tissue around the hepatic pedicle, retropancreatic space, and common hepatic artery was carried out. Frozen section of few samples did not reveal lymph node metastases. Eventually, biliary reconstruction was with a Roux-an-Y loop on the left hepatic duct. Postoperative course was uneventful and patient discharged 15 days after surgery.

FV 6.03
ANATOMIC RESECTION OF SEGMENTS 5, 6 AND 7 OF THE LIVER FOR HCC: PRIOR CONTROL OF ANTERIOR GLISSONS

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Background. Anatomic resection, i.e., systematic removal of a liver segment confined by portal branches, is theoretically effective in eradicating intrahepatic metastasis of hepatocellular carcinoma (HCC). The procedure seems to reduce postoperative recurrence rate and enhance survival of HCC patients. In patients who undergo a larger volume of hepatectomy or who have hepatic dysfunction, the extent of hepatectomy is limited to avoid postoperative hepatic failure.

Case. A 62-year-old male was found to have a 12-cm HCC in segments 5, 6 and 7, with alcoholic liver disease. ICGR15 was 11% and LHL15 by 99mTc-GSA liver scintigraphy was 0.94. The total liver function was Child-Pugh grade A. The resected liver volume of right hemi-hepatectomy estimated by CT volumetry was 72% and the permitted resected volume based on Takasaki's formula applying ICGR15 was 65%. As the portal branches of segment 8 was free from HCC involvement and the estimated volume of segments 5, 6 and 7 was 51%, we scheduled anatomic resection of these segments to secure remnant liver function. Intraoperative ultrasonography showed that HCC involved the portal branches of segments 5-7 similar to preoperative imaging. Hepatic transection on the border between right and left liver was performed and the anterior Glisson's branch was exposed in the cut area in the first step. Branches of segment 5 were subsequently divided and the border between segments 5 and 8 was confirmed. Then, the posterior section was resected and the right hepatic vein draining segment 8 was secured. Clamping and operating times were 55 and 364 minutes, respectively, and intraoperative bleeding was 850 ml, which did not require red cell transfusion. Postoperative course was satisfactory and the patient was free from tumor relapse for 6 months after hepatectomy.

Conclusion. Under a balance between tumor location and hepatic functional reserve, anatomic resection would be necessary for the treatment of HCC patients.