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Preoperative Massive Hemothorax in Living Donor Liver Transplantation; Arterial Trauma During Central Venous Catheter Insertion

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A 60-year-old man was admitted to the transplantation center because of HBV related HCC liver transplantation. He underwent central line cannulation at the right subclavian vein with a triple lumen 10 Fr. During a trial of repeated vessel approach, systolic blood pressure dropped to 50 mmHg. Manual compression was done, followed by AP Portable chest radiogram. Massive Hemothorax was found causing Left lung hazziness. On duplex examination by the radiologist, there was a leakage at the posterior wall of subclavian artery near the brachiocephalic trunk. A guiding catheter was inserted in the subclavian artery by transbrachial approach. This was treated with a 38×10 mm stent graft (Jostent;Abbott Vascular, Temecula, Calf). It was confirmed that there was no leakage by duplex examination. A chest tube was placed, and a large amount of blood (2,300 cc) was drained. After the stabilization of vital signs, living related liver transplantation underwent successfully. Radiological follow-up studies demonstrated that the function of patent stent-graft was normal.

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A Case of Hepatocellular Carcinoma with Intraductal Growing Extended into Intra- and Extra-Hepatic Bile Duct

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Introduction: Hepatocellular carcinoma (HCC) may involve the biliary tract in several different ways: tumor thrombosis, hemobilia, tumor compression, and diffuse tumor infiltration. Obstructive jaundice as the main clinical feature is uncommon in patients with HCC, so such case has possibility of being incorrectly diagnosed as cholangiocarcinoma. We experience a unusual type of HCC and herein report the case.

Case: We describe a 38-year-old man who presented with painless jaundice. Laboratory tests revealed abnormally high serum levels of total bilirubin (8.4 mg/dL) and direct bilirubin (8.1 mg/dL). The patient was found to have enhancing mass in the left intrahepatic bile duct (IHBD) and proximal common bile duct (CBD) without definite parenchymal mass on abdominal computed tomographic scan. The MRI shows similar findings to CT scan. The tumor marker evaluation shows that serum alpha-fetoprotein (AFP) and carcinoembryonic antigen (CEA) were elevated upto 1,353 IU/mL and 239 U/mL, respectively and carbohydrate antigen (CA) 19-9 was within normal range. Ultrasonography-guided mass biopsy targetting intrabile duct mass was done so as to differentiate hepatocelluar carcinoma with Klatskin tumor. Histopathologic findings was reported as compatible with HCC. At surgery, multilobulated mass was detected located in liver left lateral segment and it was extended along left IHBD to proximal CBD which was packed with intraductal protruding mass. But the wall of dilated CBD was soft, which indicated no any sign of tumour direct invasion, and an intraductal mass was suspected. Therefore, a choledochotomy was performed at the level of CBD bifurcation and then yellowish and soft intraluminal tumor mass was removed subsequently. The mass was not adherent to the bile duct wall and the gross appearance of CBD inner wall was smooth and normal. To clarify the diagnosis of negative invasion of CBD, an intraoperative frozen biopsy was done, indicating negative for malignancy. The patient underwent left hepatectomy and T-tube drainage. Histology and immunohistochemistry examnination confirmed that both liver parenchymal mass and intraductal mass were HCC.

Discussion: The reports for intraductal growing HCC is extremely rare, but Recently, the characteristics and intervention strategies of this unusual type HCC, clinically classified as 'icteric-type hepatoma' (Lin, et al. 1975), have been disclosed gradually. In the previous reports, direct tumour invasion of bile duct wall has not been noted in the most cases of this type HCC. Moreover,combined resection of bile

duct has not been proven to improve the surgical outcomes in patients with macroscopic bile duct thrombi without direct bile duct wall invasion. Therefore, it seems not absolutely necessary to remove the bile duct thrombi together with extrahepatic bile ducts in this type of HCC, unless the thrombi invasion to the bile duct wall is suspected or confirmed.

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Case Report: Living Donor Liver Transplantation for HEV Fulminant Hepatitis

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Acute hepatitis E is an endemic disease, commonly reported in Indian subcontinent, China, Africa, Central America, and so forth. Epidemics due to HEV mostly originate from contaminated water and the virus is transmitted by fecal oral way. It is generally accepted that hepatitis E is mostly self-limited and never progresses to chronicity. Hepatitis E virus (HEV) clinical presentations range from asymptomatic infection to fulminant hepatitis which is frequently seen in pregnant women, And it has a higher mortality in pregnant women where the disease condition is accentuated with the development of fulminant liver disease. In Korea, Hepatitis E is rarely reported. Moreover, sporadic acute hepatitis E without travel history to HEV-endemic area is very rare. We experienced one sporadic case of fulminant hepatitis E, without travel history. A 64-year-old female housewife, living in small village with no history of alcohol consumption and no close contact with animals was admitted in Asan Medical Center with itching sence and jaundice. Biochemical parameters on admission were as follows: total bilirubin=10.6 mg/dl; aspartate aminotransferase (AST)=1,668 U/L (reference value <19 U/L); alanine aminotransferase (ALT)=1,881 U/L (reference value <23 U/L); and lactate dehydrogenase (LDH)=532 U/L (reference value <140 U/L). Liver synthetic function, as defined by international normalized ratio (INR) estimation, was 1.2. After 6 days total bilirubin=37.3 mg/dl; AST/ALT=234/306 U/L and INR=7.79. Serologic study showed that Anti-HEV IgM was not detected and Anti-HEV IgG antibodies was positive in the serum. Serologic studies of HBV, HCV, and HAV showed all negative finding. This patient was diagnosed with fulminant hepatitis due to HEV and Emergency living donor transplantation was performed. 7 days after operation, this patient is recuperating well and liver function is good. Biochemical parameters are total bilirubin=5.3 mg/dl, AST/ALT=19/70 U/L and INR=1.02. When we carry out the serologic tests for diagnosis of acute hepatitis, we must consider HEV hepatitis.

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Successful Treatment of Colonic Mucormycosis after Liver Transplantation

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Purpose: Mucormycosis (MMC) is a frequently lethal invasive fungal infection in high-risk patients such as the immunocompromised and patients with diabetes mellitus. MMC after liver transplantation (LT) is rare but carries a very high mortality, being reported as high as 98% for gastric MMC. The hypae have a special affinity for blood vessels, which may explain the clinical presentation of the colonic infection as an ischemic colitis pattern. The authors experienced a case of colonic MMC in a LT recipient that was managed successfully. We want to discuss about its clinical presentation, diagnosis and treatment.

Methods and Results: A 41-year-old male underwent deceased-donor LT for hepatocellular carcinoma and HBV liver cirrhosis. He suffered from diabetes for 26 months but withheld insulin therapy for the last several months of his own will. The LT procedure was done uneventfully. His initial postoperative recovery was uneventful except poor control of blood sugar level. Even with infusion of high dose of insulin, his blood sugar level rose up to 497 mg/dl and was controllable at around 200 mg/dl since 48 hours after the operation. Triple immunosuppressant of steroid,