ATW 2022 Nov. 17(Thu)~19(Sat), 2022
CONRAD SEOUL, Seoul, Korea

Submission No.: PG01-5334
Session : Postgraduate Course 1 (Liver)
Date & Time, Place : November 17 (Thu), 08:30-10:00, Room 3F-1
Session Title : Living donor Hepatectomy (Video session)

Left Lobe Graft (Open)

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A procedure of tape-guided living donor left hepatectomy with middle hepatic vein (MHV) is delivered, i.e. extended left liver lobe graft. After the laparotpmy, the falciform ligament is divided up to the trunk of the MHV and left hepatic vein (LHV). The lesser omentum is divided and until the Arantius' ligament and expose a cranial part of the Spiegel lobe and IVC to dissed between LHV and IVC. After the dissection between MHV and RHV and IVC, using a right angle dissector, a tape is placed along the anterior wall of the IVC. For the extended left liver graft with caudate lobe, cranial side of the Spiegel lobe should be dissected from IVC. After cholecystectomy, left side of the hepatic hilum is dissected to encircle the left/middle hepatic artery and the left portal vein, and they are clamped to make sure the demarcation line on the Rex-Cantlie's line and intrahepatic flows using ultrasound. The parenchymal transection is done using CUSA and V5 is divided from MHV. After the parenchymal transection up until left hepatic plate including the left bile duct, we perform cholangiogram to secure the transection line of the left bile duct. Thereafter, repositioning of the tape is performed over left/middle hepatic artery, left portal vein and left hepatic hilum including hepatic duct and only remaining hepatic parenchyma could be in the tape. The final step of liver transection was applied by dividing the liver parenchyma under tape guidance. Without caudate lobe, after the parenchymal transection to the MHV, parenchymal transection goes toward Arantius' ligament with dividing V5 and V8. It could be almost horizontal. With caudate lobe, hanging tape is hooked at the parenchymal division of the caudate lobe at almost 12 o'clock of the IVC vertically. This tape repositioning procedure contributed to safe and accurate anatomic procurement of left liver grafts in living donor hepatectomy. Finally, after V8 division, liver parenchyma is divided up or down side of the Arantius' ligament in case with out caudate lobe and on the IVC incase without caudate lobe. As a point of "No-Return", the left hepatic duct is divided and closed at the donor side with 6-0 PDS-II with second cholangiogram to secure no harm on the donor side. After removal of the cholangigram tube of the cystic duct, we are finishing out the parenchymal transection on the tape with dividing V8. Finally after heparin systemic administration, the left hepatic artery is ligated and cut followed by transecting the left poral vein between baby Pott's clamp and Bulldog clamp. After placing Satinski clamp on the IVC, the trunk of the MHV/LHV is transected with Pott's clamp on the graft side. After the removal of the graft

liver, all stumps are closed and the drain placed through the foramen of Wisnlow at transection plane. Antiadhesive material is placed at stomach and the duodenum, surgery is completed. We usually perform this procedure through 12cm upper midline after laparoscopic mobilization of the right liver.

1. Eguchi S, Hidaka M, Soyama A. Liver Transpl. 2018;24(3):363-368. Standardized hybrid living donor hemihepatectomy in adult-to-adult living donor liver transplantation
2. Takatsuki M, Eguchi S, Kanematsu T. Am J Surg. 2007;194(1):107-9. Tape-guided living donor left hepatectomy.