

P048

Prolonged occlusion of the hepatoduodenal ligament to reduce risk of bleeding and tumor spread during recipient hepatectomy for living donor liver transplantation

Shin HWANG, Jin-Uk CHOI, Chul-Soo AHN, , Deok-Bog MOON, Tae-Yong HA, Ki-Hun KIM, Gi-Won SONG, Dong-Hwan JUNG, Gil-Chun PARK, Sung-Gyu LEE

Department of Surgery, Asan Medical Center, University of Ulsan College of Medicine, Korea

Introduction : Prevention of excessive bleeding during liver transplantation (LT) operations presents a major challenge. Compared to deceased donor LT, living donor LT (LDLT) is more vulnerable to bleeding because of additional dissection procedures. We herein introduce our technique for prolonged occlusion of the hepatoduodenal ligament applied to recipient hepatectomy for LDLT.

Methods : Simulated assessment of splanchnic hemodynamics on prolonged occlusion of the hepatoduodenal ligament showed that patients with cirrhotic liver appeared to tolerate the procedure as like in the patients with normal liver. We accumulated experience on the prolonged Pringle maneuver with curved intestinal clamps.

Results : This technique was applied to more than 60 cases of adult LDLT operations from early 2014 until the end of 2018. Initially, application of this technique was limited to patients showing heavy bleeding during perihilar mobilization. Thereafter, this technique was applied at the start of liver mobilization and stopped after complete mobilization of the retro-hepatic vena cava. Recently, this technique was also applied during dissection of the hepatoduodenal ligament. The mean total occlusion duration was 67 ± 13 minutes. No patient suffered from major serosal peritoneal tearing-associated bleeding or hepatic artery problems. Intentional prolonged occlusion over two hours was applied to five patients who had advanced hepatocellular carcinoma.

Conclusions : We believe that prolonged occlusion of the hepatoduodenal ligament is a simple effective method to reduce intraoperative bleeding, and that it has potential benefit to reduce the risk of intraoperative tumor spread during LDLT operations.

Corresponding Author. : **Shin HWANG** (shwang@amc.seoul.kr)