

**PL 1****Laparoscopic living donor right hepatectomy regarding the anatomical variation of portal vein: A propensity Score Matched Analysis**

Jinsoo RHU, Gyu-Seong CHOI*, Jong Man KIM, Jae-Won JOH

Department of surgery, Samsung Medical Center, Korea

Introduction : This study is designed to analyze the feasibility of laparoscopic living donor right hemihepatectomy in living donors with portal vein variation.

Methods : Living donor liver transplantation cases with right liver graft during the period of January 2014 to September 2019 were included. Computed tomographic angiographies of the donor were three-dimensionally reconstructed, and the anatomical variation of the portal vein was classified. To reduce, selection bias, 1:1 ratio propensity score match analysis between the laparoscopy group and the open group was performed. Surgical and recovery-related outcome as well as portal vein complication-free survival, graft survival and overall survival were analyzed

Results : After matching, 171 cases in each group from 444 original cases were compared. The laparoscopy group had shorter operation time ($P<0.001$), smaller number of additional opioids required by the donor ($P<0.001$), shorter hospital stay. ($P<0.001$) There were no difference in the portal vein complication-free survival ($P=0.16$), graft survival ($P=0.26$), and overall survival. ($P=0.53$) While portal vein complication-free survival was inferior in portal vein other than type I ($P=0.01$), the laparoscopy showed similar portal vein complication-free survival whether the portal vein was type I ($P=0.35$) or other types. ($P=0.30$)

Conclusions : Laparoscopic living donor right hemihepatectomy can be performed as safely as open surgery regardless of the anatomical variation of portal vein.

Corresponding Author. : **Gyu-Seong CHOI** (med9370@gmail.com)

Presenter : **Jinsoo RHU** (jsrules@gmail.com)