

**EP069****Hepatic artery reconstruction during LDLT using surgical loupe****Changho SEO***General surgery, Seoul St. Mary's Hospital, The Catholic University of Korea, Seoul, Korea*

Introduction : Hepatic artery (HA) reconstruction during living donor liver transplantation (LDLT) is the key step due to the small diameter of the artery and risk of HA thrombosis (HAT). To overcome this risky procedure, it has been preferred to using microscope during HA reconstruction by experienced microsurgeon. However, it takes long time to complete the procedure and has long and steep learning curve. To make this procedure simple, some transplant surgeons recently try the procedure using surgical loupe. We conduct this study to compare the outcomes after HA reconstruction using conventional microscope versus surgical loupe.

Methods : We retrospectively reviewed outcomes of 300 LDLTs at our institution from April 2014 to July 2020. From April 2014 to September 2017 (era 1), HA reconstruction was performed with conventional microscope by an experienced plastic surgeon. From September 2017 to end date (era 2), it was performed using surgical loupe (x 5.0) by an experienced transplantation surgeon.

Results : There was no difference in most perioperative outcomes between two groups including major postoperative complications : HAT (2/150 versus 1/150, p-value=0.562), postoperative bleeding (13/150 versus 6/150, p-value=0.097) and biliary leak (18/150 versus 13/150, p-value=0.343). It was statistically significant between two groups for total operation time (436.66 ± 83.91 versus 415.35 ± 68.55 , p-value=0.035). Multivariable regression modeling to adjust for baseline differences showed that the use of surgical loupe was not associated with HA thrombosis.

Conclusions : HA reconstruction with surgical loupe makes results as good as with microscope for the transplant surgeon and contributes to reducing operating time.

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