HBP SURGERY WEEK 2023

MARCH 23 THU - 25 SAT, 2023 | BEXCO, BUSAN, KOREA www.khbps.org

& The 58th Annual Congress of the Korean Association of HBP Surgery



ABST-0326

Impact Of Baseline Anti-ABO Antibody Titer On Biliary Complications Following ABO-incompatible Living Donor Liver Transplantation

Hye-Sung JO¹, Young-Dong YU¹, Pyoung-Jae PARK², Hyung Joon HAN³, Wan-Joon KIM², Sang Jin KIM³, Dong-Sik KIM*¹

¹Surgery, Korea University Anam Hospital, Korea University College Of Medicine, REPUBLIC OF KOREA ²Surgery, Korea University Guro Hospital, Korea University College Of Medicine, REPUBLIC OF KOREA ³Surgery, Korea University Ansan Hospital, Korea University College Of Medicine, REPUBLIC OF KOREA

Background : ABO-incompatible living donor liver transplantation (LDLT) has been increasingly performed in the shortage of deceased and ABO-compatible live donors. Although vigorous efforts to overcome immunologic hurdles, a higher biliary complication rate remains a critical issue to be solved. This study evaluated the impact of baseline anti-ABO antibody titer on biliary complications following ABOincompatible LDLT.

Methods : Consecutive patients who underwent adult-to-adult LDLT were enrolled in this study. The study cohort comprised 126 patients in the ABO-compatible group, 16 in the low anti-ABO antibody titer (<1:64) group, and 23 in the high anti-ABO antibody titer (≥1:64) group. Rituximab (300mg/m²) was administered 2 weeks before surgery, and total plasma exchange was performed according to the anti-ABO antibody titer from 1 week before surgery. The target anti-ABO antibody titer was 1:8 or less.

Results : The higher baseline anti-ABO antibody titer, the more biliary complications occurred (19 [15.1%] in the ABOc group, 3 [18.8%] in the ABOi-low titer group, and 9 [39.1%] in the ABOi-high titer group, P=0.026). The number and size of graft bile ducts were not different between the three groups. High anti-ABO antibody titer (\geq 1:64), male sex, and hepatic artery complication were independent risk factors for biliary complication (Odds ratio 3.91 [1.32–11.59], P=0.014, 5.93 [1.57–22.40], P=0.009, and 12.75 [0.89–183.28], P=0.061 respectively). Interestingly, the number and size of bile ducts did not significantly affect the occurrence of biliary complications. In the long-term outcome, the overall survival rates were not different between the groups (P=0.307).

Conclusions : Although anti-ABO antibody titer just before the LDLT is lowered, the higher baseline titer is the critical factor for developing postoperative biliary complications, which could potentially affect graft survival. We should pay particular attention to patients with higher baseline anti-ABO antibody titer for timely biliary intervention.

Corresponding Author : Dong-Sik KIM (kimds1@korea.ac.kr)