Abstract No. : **O-0179**

Topic : **Liver**

THE IMPACT OF PHARMACOLOGIC GRAFT INFLOW MODULATION ON UTILIZING LEFT LOBE LIVING DONOR GRAFTS FOR ADULT LIVER TRANSPLANTATION

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Background : Right lobe grafts are favoured in LDLT due to size, despite higher donor risks. This study assesses whether pharmacologic graft inflow modulation (GIM) can increase the use of smaller left lobe grafts in adults

Methods : This was a single-cohort retrospective study, with data obtained from a prospectively maintained local registry, spanning Jan-2012 to Aug-2023.

Results : 202 left LDLT pairs were performed with a mean Graft-to-Recipient Weight Ration (GRWR) of 0.72 (SD 0.16). Octreotide was used perioperatively in 56% of cases and splenic artery ligation in 31%. Portal flow dynamics pre- and post-GIM are detailed in Table 1. The incidence of complications (Grade ≥1) was 48%, with major morbidity (Grade ≥3a) at 29% and Small-for-Size Syndrome (SFSS) occurring in 10% of cases. The median ICU and hospital stays were 5 and 28 days, respectively, with an in-hospital mortality rate of 8%. Following the 2019 introduction of pharmacologic GIM, the use of smaller left lobe grafts rose significantly, representing a third of all adult LDLT cases. However, GRWR showed no correlation with SFSS (ILTS 2023 Consensus) or with short- or long-term outcomes, even when GRWR was below 0.60%.

Conclusions : With adequate graft inflow modulation and surgical expertise, adult left graft LDLT, down to a GRWR of 0.50%, can be a viable and safe option, with increased utilization of left lobe grafts in the adult liver transplant setting, while minimizing the risk of the donor.

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