

**P052**

## **Pediatric living donor liver transplantation with homograft replacement of retrohepatic inferior vena cava for advanced hepatoblastoma**

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**Introduction** : Replacement of retrohepatic inferior vena cava (IVC) after concurrent resection of IVC and hepatocellular carcinoma-containing liver is settled as a living donor liver transplantation (LDLT) technique to cope with tumors around the IVC. This technique makes LDLT comparable to deceased-donor liver transplantation (DDLT). In current Korean setting, the common substitute for IVC is Dacron graft for adult recipients. In contrast, such a synthetic graft cannot be used for pediatric patients because of ongoing growth.

**Methods** : We present one pediatric LDLT case with IVC homograft replacement for advanced hepatoblastoma.

**Results** : The patient was a 9 year-old boy who suffered from large multiple hepatoblastomas. The tumors encroached the retrohepatic IVC, thus there was a high risk of residual tumor cells at the IVC if it was preserved. Thus we decided to replace IVC at the time of LDLT. After waiting for 1 month, we finally obtained cold-stored IVC homograft and LDLT was performed with mother's left liver. A 4 cm-long IVC allograft was anastomosed at the back table. The left liver graft with IVC interposition was implanted along the standard procedure similar to DDLT. The patient recovered uneventfully and is scheduled for adjuvant chemotherapy.

**Conclusions** : We have performed >30 cases of IVC replacement in adult recipients with hepatocellular carcinoma, but all vessel substitutes were synthetic because of sizable IVC homograft is not available. In pediatric recipients, various vein homografts such as iliac vein, IVC and other large-sized veins should be used depending on the body size of recipient and availability of vessel graft.

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