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Session Title : Preoperative Evaluation & Optimization

How to Overcome Obstacles of Living Donor Hepatectomy-Volume and Anatomical Barriers

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How to Overcome Obstacles of Living Donor Hepatectomy-Volume and Anatomical Barriers There are several obstacles in expanding donor pool in living donor liver transplantation (LDLT); small-for-size problem, multiple ducts and vessels, ABO blood type incompatible (ABO-I) donor, and preformed donor specific antibody (DSA) positive case. Since the initiation of LDLT for adult patients, the lower limit of the graft volume has been a matter of debate. In our center, left liver is the first choice of graft, and the lower limit of the graft has been set at 35% of standard liver volume, which approximately corresponds to 0.7 in GRWR. When the recipients with left liver graft were divided into those with the graft weight < SLV 35% (n=31), those with the graft weight >=SLV35%, < SLV40% (n=92), and non-small group >= SLV40% (n=90), there was no difference in the outcomes between the groups. We do not perform portal modulation nor routine shunt ligation during LDLT, but have emphasized the importance of wide large outflow orifice with cryopreserved homologous veins to avoid small-for-size syndrome. Another option to overcome the volume problem is to choose a variant graft. We prefer to use the posterior graft and totally 42 cases have been performed with the posterior grafts, however, the high incidence of biliary complications (45%, 19/42) is the concern in this situation. Multiple ducts and vessels are another issue in LDLT. We do not exclude donor candidates due to biliary variation. Cases with two or three duct orifices were 36% (256/703) in our series, and I will present our way of duct-to-duct reconstruction for three duct orifices in right liver graft. Double portal and arterial orifices are often encountered and meticulous reconstructions are necessary. Finally, the introduction of rituximab has dramatically improved the results of ABO-I LDLT, which significantly increased the donor pool. Recently, we advocated the efficacy of rituximab desensitization for DSA positive LDLT based on Japanese nationwide survey.