LV EV 2

Ex Vivo Liver Resection And Auto-transplantation

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Lecture : When Tumor invades all three main HVs or Retrohepatic IVC Also, Even though we use Hypothermic perfusion and Extracorporeal bypass, Because Complex reconstruction of HV outflow and IVC replacement requires more than 2 hours Anhepatic phase. Another surgical approaches having oncological rationale is Ex situ resection including In vivo or Ex vivo hepatectomy.

In vivo hepatectomy, So-called Ante situm hepatectomy is useful approach, but Major drawbacks are Suboptimal exposure and Less tolerable ischemic time than Ex vivo approach. Ex vivo hepatectomy, requiring Autotransplantation, can be indicated for Otherwise unresectable hepatic tumor To increase resectability and curability also By the Competent surgeon familiar with HR and LT.

19 years ago, we performed 1st Auto-transplantation. The patient had Sclerosing HCC invading Roots of Middle & LHVs and Vena cava also.

As a 2nd experience, patient had Extensive IVC leiomyosarcoma involving the whole length of IVC, and additionally had suspicious MHV invasion. We replaced IVC by using two types of Artificial graft to match the diameter and length of IVC.

At the time of third case, for the first time, we performed In vivo resection of tumor-free Extended RL graft utilizing Living donor hepatectomy techniques.

As a take-home messages, Complicated invasion of hilar structures also might be indicated for Hepatic autotransplantation, Particularly in the presence of both 1st and 2nd order PV invasion. In vivo resection using living donor hepatectomy techniques is invaluable surgical strategy to reduce hepatic ischemia-time. Even after discharge, PostOP surveillance for vascular complication is essential. Thank you for your kind attention.