Auxiliary liver transplantation

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Auxiliary LT involves implanting a healthy liver graft placed either heterotopically or orthotopically while leaving all or part of the native liver intact. Auxiliary heterotopic LT , where the graft is implanted below the native liver, was proposed as an alternative to orthotopic LT in the early era of transplantation when recipient hepatectomy was associated with massive blood loss and transfusion requirements. But the technique was marred with failures due to the heterotopic position of the graft resulting in poor venous drainage. More recently there has been a renewed interest in auxiliary LT for ALF and certain metabolic liver diseases. To overcome the previous technical di ffi culties, the procedure is now performed with a ient partial hepatectomy to create space for the graft (Figure 89.6). The procedure is therefore termed auxiliary partial orthotopic liver transplantation (APOLT). It is a technically - /uni25CF /uni25CF /uni25CF /uni25CF - /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF

Figure 89.6 Right lobe auxiliary partial orthotopic liver transplantation (APOLT) for acute liver failure due to yellow phosphorus poisoning. (a) Recipient left lateral section of the liver looking pale and fatty owing to yellow phosphorus poisoning; right lobe graft from the donor /uni00A0 implanted into the orthotopic position. (b) Hepatobiliary iminodiacetic acid (HIDA) scans done over the /f_i rst year after transplant in a left lobe APOLT. The scans show regression of the left lobe auxiliary graft and functioning native liver. TABLE 89.2 Extended criteria donors in liver transplantation. Type of extended criteria donor Primary risk to the recipient Advanced donor age Delayed graft function Macrovesicular steatosis Delayed graft function Donation after circulatory death Biliary complication organs Organ dysfunction at Delayed graft function, procurement: primary non-function ICU stay >7 days Hypernatraemia >165 /uni00A0 mmol/L Bilirubin >51 /uni00A0 µmol/L Elevated liver enzymes (AST, ALT) Vasopressor use Cause of death: anoxia, Delayed graft function, biliary cerebrovascular accident complication Disease transmission: Infectious risk Hepatitis B core antibody- positive donor Hepatitis B surface antigen- positive donor Hepatitis C virus-positive donor HIV-positive donor High-risk history (active drug abuser, etc.) Extrahepatic malignancy Delayed graft function, Cold ischaemia time >12 hours primary non-function (long storage of organ after procurement) ALT, alanine aminotransferase; AST, aspartate aminotransferase; HIV, human immunode /f_i ciency virus; ICU, intensive care unit.

native liver regeneration in ALF . The most important benefit of APOLT is the potential for immunosuppression withdrawal when the native liver fully regenerates, although outcomes have been suboptimal in less experienced hands. In metabolic liver diseases in children, APOLT is performed with the intention of keeping part of the native liver for future gene therapy .

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