

Paediatrics

The updates of liver transplantation for hepatoblastoma

Feng XUE

Hepatoblastomas (HBs) account for almost 80% of primary malignant liver tumors in young children, disease-free survival has been over 80% in favorable risk populations, due to improvements in chemotherapy and surgical treatments, especially liver transplantation (LT). However, there is few data reporting outcomes of LT for HBs in China.

In this single-center study, 176 HBs subjected to surgical treatments were included in the cohort, 44 HBs had got liver transplantation. Among which, 20 HBs primary LT (PLT), 156 HBs primary liver resection (PLR) with/ without salvage LT (SLT). In general, 1-,3-,5-year overall survival (OS) and event free survival (EFS) after LT were 94.5%, 79.4%,79.4% respectively, EFS was 60% at 5-year post-LT. The 5-year OS and EFS in PLT were 83.7% and 56.7%, showed no significant differences to those in SLT group ($p>0.05$). Child over 4 years, portal vein tumor invasion, multifocal liver tumor and distal metastasis were risk factors of recurrence after surgical treatments. Univariable and multivariable Cox regression analysis showed distal metastasis before LT was the only independent risk factor of OS post-LT ($p=0.023$), while the age and AFP>1000 ng/ml were the risk factors of EFS post-LT. Molecular classification based on single-cell omics technology had proven a pro-like1 HBs subtype had the worst prognosis. **Conclusions:** LT achieved favorable outcomes for HB, PLT showed similar OS and EFS compared with SLT. When resectable HBs with recurrent risk, LT being the first surgical treatment is recommended, molecular features may better characterize the subtypes of HB and provide precise treatment in the future.