



Liver transplantation in pediatric patients with biliary complications after partial liver resection

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The aim of surgical management of liver tumors is complete resection with negative microscopic margin. Hepatic resection in patients with tumor involving three sectors or the hilum of the liver poses an increased risk of leaving a positive margin, could lead to failure of the liver remnant or cause biliary complications.

Methods: We retrospectively analyzed data of five patients with biliary complications after partial liver resection due to hepatic tumor, who developed biliary cirrhosis and needed liver transplantation (LT).

Main Results: Indication for partial liver resection were hepatoblastoma in three patients (PRETEXT III in two, PRETEXT II in one), mesenchymal hamartoma in one and the liver metastases of Wilms tumor. Three patients underwent right trisegmentectomy, two right hemihepatectomy. Three patients developed biliary leak, and underwent relaparotomy with bilo-Roux-en-Y loop anastomosis. Two of them needed percutaneous management of biliary complications. In two patients cholestasis due to biliary stenosis was observed, one underwent surgical revision. All patients developed biliary cirrhosis and underwent LT (the median time between hepatic resection and LT was 48 months). One needed urgent liver retransplantation due to hyperacute rejection. All patients are alive without recurrence in patients with malignant liver tumor (the median follow-up time: 84 months).

Conclusion: Patients who develop biliary cirrhosis due to biliary complications after hepatic resection may need LT. The key decision in surgical management of patients with liver tumor involving three sectors or localized near the liver hilum is the choice between surgical resection and primary LT.