Indication and outcome of adult liver transplantation for post-Kasai biliary atresia

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Background: Some young adults who underwent Kasai portoenterostomy (KPE) for biliary atresia (BA) can live for long period with native liver, but a considerable proportion of patients require liver transplantation (LT). This study was intended to analyze the indications and outcomes of LT in young adult LT recipients who had survived long period with native liver after KPE.

Methods: We selected seven patients who were 18 years or older at the time of LT operation out of 116 BA patients who underwent primary LT from 2008 to 2019.

Results: The mean ages at KPE and LT were 2.1 ± 0.9 months and 22.0 ± 5.1 years, respectively. Mean serum total bilirubin level and model for end-stage liver disease score at LT was 7.91 ± 7.22 mg/dL and 15.3 ± 6.0 , respectively. The main reasons for LT were liver cirrhosis and/or portal hypertension-associated complications in five and intractable cholangitis in two. Types of LT were living donor LT in five and deceased donor LT in two. All seven patients are currently alive during the mean follow-up period of 74.7 ± 40.9 months. One patient suffered from outflow graft vein obstruction requiring endovascular stenting. One patient showed core antibody-positivity-induced *de novo* hepatitis B virus infection, which was well managed with antiviral therapy.

Conclusions: Young adult patients with BA are a unique group of patients requiring specialist care regarding transition from pediatric to adult services. The outcome of LT in young adult BA patients were excellent, thus LT should be considered in patients showing serious BA-associated complications.

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