ABSTRACT

Background

Despite the widespread use of Kasai Portoenterostomy (KPE) for biliary atresia, more than two thirds of these patients require liver transplant. Liver transplantation is not widely available in South Africa, and Wits Donald Gordon Medical Centre is one of two centres performing paediatric liver transplantation in the country, and the only centre performing living related donor transplants. The study aims to outline the experience with liver transplant for biliary atresia in terms of the post-operative complications and one-year survival outcomes, with the goal to ascertain the factors which govern those outcomes

Methods

A retrospective review was performed at the centre. Demographic data was collected, and tabulated. Survival analysis was performed using Kaplan Meier curves. Complication rates were categorised into biliary, vascular and enteric complications, and classified as early and late. Mortality was analysed according to cause and timing which was categorised as early and late.

Results

Sixty-seven first time liver transplants were performed for biliary atresia, at WDGMC from 2005 to 2017. Sixty-nine percent were female patients and thirty-one percent were male patients. Forty-eight percent of patients under the age of 5 years, had a z-score of -2 or worse for mid upper arm circumference (MUAC). The rates of biliary complications, enteric complications and vascular complications were 34%, 12% and 12%, respectively. One-year overall survival of the cohort is 84.5%, and overall graft survival is 82.9%. Overall mortality was 22% but cause of death was difficult to corroborate.

Conclusion

Complication rates and survival outcomes are comparable to international single centre studies despite the high rates of malnutrition in our study cohort. Early referral of all patients with biliary atresia to a paediatric liver transplant centre is essential for early detection of indications, and medical and nutritional optimisation of patients.