

Long Term Graft and Patient Survivals and Rejection Rates of Kidney Transplantation in Public Hospital in Malaysia, an Eight Years Longitudinal Data

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Introduction

Kidney transplantation (KT) is the best treatment modality for patients with End Stage Kidney Disease (ESKD) as it is most cost-effective and offers better patient survival. This study reports the patients' demographic and outcome data for kidney transplantation performed in public hospitals in Malaysia.

Methods

Data of kidney transplant recipients (KTR) who had KT (living and deceased donor) between 2015 and 2022 was extracted from the kidney transplant registry. Only KT performed in public hospitals (Hospital Kuala Lumpur and Selayang Hospital) were included. Demographics were analysed using descriptive statistics and patient or graft survival were analysed using Kaplan Meier.

Results

Of 579 KT were performed, two-thirds (364) were living donor KT and 13% (48) were ABO incompatible. Median age of recipients were 35 years old (IQR 28-43); 55.4% were female; 68% were Malay.

The biopsy-proven acute rejection (BPAR) in the first-year post-transplant was 11.8% and 2.1% thereafter. The majority were cellular rejection (64%) and 22% were antibody-mediated, and remaining were mixed rejection.

The overall mean graft survival for living and deceased donor was 84.7 months (95% CI 81.07- 88.39) and 78.4 months (95% CI 73.6-83.1) respectively (p value =0.07). Graft survival for living KT was significantly longer than deceased donor with graft survival rate at one year, three years and five years were 97.6%, 94.8%, 87.4 % and 93.6%, 88.1%, 78.1% respectively. (p value <0.05).

The overall mean patient survival time for living and deceased donor was 92 months (95% CI 90.6-94.3) and 83 months (95% CI 78.8-87.3) respectively (p value <0.001). Patient survival for living KT was significantly longer than deceased donor with patient survival rate at one year, three years and five years were 98.4%, 98.4%, 97% and 95%, 92%, 82.8% respectively. (p value <0.05).

Conclusions

Although the rate of KT is low, it had increased in the recent years, especially living donor KT. The outcome of KT such as graft survival, patient survival and BPAR were comparable to other countries.