

ABSTRACT

Introduction

Epstein-Barr virus (EBV) infection leads to EBV disease/Post Transplant Lymphoproliferative Disorder (PTLD) in post-renal transplant patients. Early detection with pre-emptive measures can prevent/halt disease progression. Guidelines recommend post-transplant screening in high risk recipients {(recipient seronegative(R-)/donor seropositive(D+)} within first post-transplant year. The magnitude of EBV infection/disease in post-renal transplant population in Sri Lanka is unknown. The study aimed to describe EBV viraemia and selected associated factors for PTLD among first year renal transplant recipients presenting to renal clinics at NHSL and NINDT.

Methods

A descriptive cross sectional study was conducted using plasma of 118 adult first year post-transplant patients recruited over four months. EBV viraemia was tested for using a commercially validated quantitative real time PCR assay; socio-demographic and data on selected associated factors were collected using an interviewer administered questionnaire and clinical records.

Results

Median age was 44.97years (IQR-12.48). Most were more than 6 months after transplantation (54.3%); had received a live related kidney (90.8%). EBV viraemia was not detected in any of the participants. Analysis of selected associated factors for PTLD revealed that pre-transplant EBV serology records were available only in 31.36% of recipients, out of which 52.64% were seronegative. Twenty percent were D+/R- and 26.6% were D-/R-. Only 11.86% were more than 60 years of age and all were on triple therapy with Tacrolimus mean dose of 4.74mg (SD-1.34), MMF 1493.64mg (SD-285.8) and prednisolone 13.83mg (SD-8.3). None had received ATG. Out of 81/118 who had available HLA reports 79.01% had at least one B locus mismatch. Recipient high risk HLA types like A1, A11, B35, B5 and DR7 were present.

Conclusion

Active EBV infection was not detected among the participants at the time of testing. All associated factors for PTLD evaluated in the study were present among the recruits. Use of only one sample per patient, selection of plasma as the type of specimen, lesser number of recruits in early transplant period may have had an effect on the results of the study.