

Abstract

Chronic kidney disease (CKD) is recognised as a major public health problem owing to the rapid increase in prevalence and enormous cost burden on health care systems world wide. In Sri Lanka too, it has become an important focus of health care planning during recent times. This is evident by the increased detection rates of CKD and improvement in management facilities and increased number of renal transplantations that has taken place over a short period of time.

Chickenpox can be severe with high mortality in transplant recipients. In tropical countries age of acquiring chickenpox is delayed compared to temperate countries. In Colombo district, seropositivity of Varicella Zoster (VZV) antibodies has been 36% during 1999 to 2000.

Main objective of this study was to assess the seroprevalence of VZV antibodies in potential transplant recipients. Vaccination is effective in renal failure patients. Therefore identifying susceptible patients is important for implementation of preventive measures.

Currently in most nephrology clinics in Sri Lanka, positive history of chickenpox is taken as immunity to the primary infection. Determination of correlation between history and serostatus is important to formulate a policy for screening renal transplant candidates.

Blood samples and relevant data were taken after obtaining informed written consent from 196 participants. These patients were allocated from four hospitals in Colombo District. VZV specific IgG antibodies were detected using a whole VZV infected cell lysate antigen containing commercial ELISA kit.

Estimated seroprevalence of VZV antibodies was 71.94%. Therefore, a considerable number of CRF patients remain susceptible to VZV infection. Out of the patients with a positive history of chickenpox 96.26% were seropositive. Considering the severity of possible infection, use of history alone to assess immunity is not satisfactory. As 85.45% of history negative patients did not show VZV antibodies, vaccination of all history negative potential transplant recipients should be considered when there are no facilities for serological assessment.

VZV Vaccine efficacy in the study population could not be assessed due the limited number of vaccinated participants.