

## 신장 이식 환자에서 EBV 바이러스 혈증의 위험인자와 유병률

가톨릭대학교 의과대학 서울성모병원 내과학교실 신장내과, 가톨릭대학교 의과대학 서울성모병원 장기이식센터

양근석, 정병하, 최범순, 박철휘, 김용수, 양철우

### Prevalence and Risk Factor of Epstein-Barr Virus Viremia in Kidney Transplant Patients

Keun Suk Yang, Byung Ha Chung, Bum Soon Choi, Cheol Whee Park, Yong-Soo Kim, Chul Woo Yang

Division of Nephrology Department of Internal Medicine  
Seoul St. Mary's Hospital College of Medicine The Catholic University of Korea Seoul Korea  
Transplant Research center Seoul St. Mary's Hospital College of Medicine  
The Catholic University of Korea Seoul Korea

**Introduction:** Epstein-Barr Virus (EBV) infection is an important risk factor for post-transplant lymphoproliferative disease and increase in viral load of EBV also associated with the development of chronic allograft injury. In this study, we evaluated the prevalence and risk factors for the development of EBV viremia in renal transplant recipients.

**Methods:** One hundred ninety three patients were included in this study. The follow-up period from KT was  $82.26 \pm 68.09$  months and the mean age was  $46.88 \pm 11.19$  years. Plasma EBV loads were measured by real-time quantitative polymerase chain reaction and EBV Viremia was defined as having at least 500 copies EBV/ml.

**Results:** EBV viremia developed in 35.23% (68/193) of study population. Donors for the majority of patients in this study were living (74.1%). The patients with proteinuria showed significant difference in both groups ( $p < 0.01$ ). EBV viremia were more frequent in the patients treated with cyclosporine than with tacrolimus ( $p < 0.01$ ). Glomerular filtration rate was lower in EV group ( $53.74 \pm 21.39$  ml/min/BSA) than NV group ( $60.54 \pm 17.58$  ml/min/BSA) ( $p < 0.05$ ) and immunosuppression period was longer in EV group ( $124.92 \pm 83.63$  months) than NV group ( $78.33 \pm 73.45$  months) ( $p < 0.01$ ). No significant difference was shown between EV group and NV group on age at transplant, pre-transplant dialysis type, donor type, rejection history, ABO incompatible transplantation proportion.

**Conclusion:** The prevalence of EBV viremia was 35.23% in stable renal transplant recipients. The duration of immunosuppression and the type of immunosuppressant may be associated with the development of viremia.

**Key Words:** 신장이식, EBV, EBV 바이러스 혈증  
Kidney transplantaion, EBV, EBV viremia