BK virus infection and risk factors in Vietnamese renal transplant recipients

Vu Thi My Hanh¹, Nguyen Vu Trung¹, Nguyen The Cuong¹ and Tran Minh Chau¹
¹Hanoi Medical University, Vietnam
²Viet Duc Hospital, Vietnam

BK virus-associated nephropathy is one of the most common viral diseases because of graft loss after kidney transplantation. Precise identification of risk factors should reduce the risk of BKV infection and screening for viral replication may allow for earlier intervention with reduced allograft loss. There are many studies about risk factors of BKV reactivation in kidney transplant recipients in the world but none in Vietnamese patients. For this purpose, the data were retrospectively collected in all kidney transplanted recipients who were admitted at Department of Kidney Diseases and Dialysis at Viet Duc Hospital in 2014. The BKV in urine and blood were quantified by real-time PCR. In total 393 patients, 222 patients have BKV in urine or plasma (56.5%). Mean age of patients’ 46±8.9 years. Males were 68.2% and females were 31.8%. Grafts were 76.4% from living donors, 11.7% from cadaveric donors and 15.5% unknown. 97.3% were recipients of first allograft and in other cases the cause of first allograft failure was chronic allograft nephropathy. 76.6% patients received prednisolone/tacrolimus/mycophenolate mofetil regimen, while 23.4% received prednisolone/cyclosporine/mycophenolate mofetil regimen. Negative statistical correlation was observed between BKV infection with age, sex, BMI, re-transplantation, deceased donor and HLA mismatch number. Positive statistical correlation was observed between the immunosuppression drug treatments and BKV infection. In this study, many well-known risk factors associated with BKV replication were not confirmed. There is an association between high dose of immunosuppression and BKV infection. These findings need to be confirmed in further studies.

vuthimyhanh7691@gmail.com

Notes: