Lecture Code : KT02-S3
Session Name : Kidney Transplantation 2
Session Topic : Cutting-Edge Immunosuppression and Surveillance Approaches in Kidney Transplantation
Date & Time, Place : June 20 (Fri) / 16:40-18:40 / Room 2 (GBR 102)

New Approaches and Treatments in Surveillance and Management of BK Virus

Yu Ho Lee
CHA Bundang Medical Center, Republic of Korea

Since its first identification in 1971, BK virus-associated nephropathy (BKVAN) has been recognized as an important cause of graft dysfunction in kidney transplant recipients, accounting for approximately 10% of the cause of graft loss after kidney transplantation. Recent advancements in its surveillance, diagnosis, and treatment have significantly improved the clinical outcomes for individuals with BKVAN. However, due to the absence of specific treatments targeting the BK virus, kidney transplant recipients often encounter progressive graft dysfunction linked to BKVAN, alongside the risk of simultaneous acute rejection resulting from the reductions in immunosuppressive drugs. This lecture will focus on recent updates in the surveillance and management of BKVAN. In particular, I will introduce BK virus–associated microRNAs, which show promise as innovative biomarkers for the non-invasive diagnosis of BKVAN. Additionally, cell-based immunotherapy using virus-specific T cells, a recently emerging cutting-edge therapy, will be discussed.

Keywords: kidney transplantation, BK virus, surveillance and management, microRNA, virus-specific T cell