



Submission No.: PG06-9340

Session : Postgraduate Course 6 (Kidney/Pancreas)

Date & Time, Place : November 16 (Thu), 13:00-14:30, Room 5F-1

Session Title : Post-transplant care in kidney transplantation

Monitoring on a regular basis and in special situations

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Renal transplantation necessitates stringent post-operative surveillance to detect graft dysfunction and infection. The KDIGO Clinical Practice Guideline (2009)¹ provides a structured monitoring framework for renal function and rejection, emphasizing the importance of frequent urine volume, protein excretion, and serum creatinine measurements, along with selective indications for kidney allograft biopsy. In recent years, there has been a paradigm shift towards incorporating subclinical rejections² and donor-specific antibodies (DSA) into the monitoring regimen.³ Subclinical rejection may be detected through protocol biopsies, and DSA monitoring is emphasized in modern guidelines, particularly within the first 3-6 months post-transplant. Concurrently, emerging non-invasive biomarkers such as donor-derived cell-free DNA and microRNAs are under investigation for their clinical utility and cost-effectiveness.⁴ Regarding viral infection monitoring in kidney transplant recipients (KTRs), BK polyoma virus (BKV), Epstein-Barr virus (EBV), and cytomegalovirus (CMV) are focal points. Updated guidelines from The Transplantation Society (TTS)⁵ and American Society of Transplantation (AST)⁶ recommend monthly BKV plasma QNAT DNAemia exams until the ninth month post-transplant, followed by tri-monthly exams until two years. Allograft biopsy is generally not indicated solely for BKPyV DNAemia unless it informs management of suspected rejection. For CMV, the monitoring approach varies based on whether the patient is under preemptive or prophylactic therapy.⁷ Viral DNA QNAT calibrated to the WHO standard is recommended for diagnostics and monitoring. EBV surveillance varies with infection risk. High-risk scenarios (donor EBV seropositive/recipient seronegative) warrant more aggressive monitoring as per AST guidelines, including weekly to biweekly surveillance until EBV DNAemia is detected.⁸ Special attention is necessary for febrile episodes in KTRs. A University of Minnesota study indicated that approximately 75% of fever episodes were infection-associated, predominantly viral. Other etiological considerations for fever in this population include allograft rejection, malignancy, and drug-induced fever. Comprehensive evaluation should be symptom and sign driven, considering a range of viral, bacterial, and fungal pathogens, some of which are uncommon in non-transplant patients. Overall, the landscape of post-transplant monitoring is evolving with advancements in both immunological and infectious markers, heralding a more nuanced and individualized approach to long-term graft survival. == == == **References**

Asian Transplantation Week 2023



Nov. 15^(Wed) ~ 18^(Sat), 2023

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