Asian Transplantation Week 2023
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Conrad Seoul, Korea
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Session Title : Post-transplant care in kidney transplantation

Non-immunosuppressant Medication

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Postgraduate Course 6: Post-transplant Care in Kidney Transplantation Topic: Non-immunosuppressant Medication Speaker: Shan-Feng Tsai Abstract Renal transplantation (RTX) remains the optimal treatment for patients with end-stage kidney disease (ESKD). RTX offers the best long-term outcomes and quality of life for patients. However, caring for patients undergoing RTX is a complex process, involving the pre-transplant, peri-transplant, and post-transplant periods. As a result, the mortality rate following RTX remains higher than that of hemodialysis within the first three months after the procedure. Medications play a crucial role in RTX and can be categorized into immunosuppressants and non-immunosuppressants. In this presentation, we will focus on non-immunosuppressant medications, dividing them into early and late-phase post-RTX management. The first aspect involves pre-existing medications during the peri-RTX period. In most cases, these medications can continue, but special attention should be given to antiplatelet therapy. Decisions regarding anticoagulation and the transition to heparin should be made based on individual patient factors, and the use of heparin to prevent venous thrombosis remains a subject of debate. The second and more substantial part of post-RTX care concerns prophylactic medications. While the use of surgical antibiotic prophylaxis may be debated, it is commonly prescribed. We highly recommend regular co-trimoxazole and Valganciclovir to prevent Pneumocystis jiroveci pneumonia (PJP) and cytomegalovirus (CMV), respectively. Systemic antifungal prophylaxis is not typically administered in RTX, but oral nystatin is commonly used to prevent oral and esophageal candidiasis. Due to the use of high-dose steroids, many clinicians also prescribe H2 blockers or proton pump inhibitors to protect the gastric mucosa. After RTX, post-operative fluid management depends on meticulous and frequent evaluation of the patient's fluid status. If the patient is already in a euvolemic state, urine output from the previous hour plus 30 mL should be replaced to account for insensible losses. Frequent monitoring of fluid status and adjustment of intravenous fluids are mandatory within 24-48 hours after RTX. In the late phase of RTX, medications for hypertension, pre-existing or newly developed diabetes mellitus (DM), dyslipidemia, and gout are essential for the long-term outcome of recipients. Currently, most treatments for metabolic diseases are based on extrapolative evidence rather than specific recipient populations. Regarding hypertension, there is no conclusive evidence favoring one class of

antihypertensive agents over another, but inhibitors of the renin-angiotensin system may be more effective. Statins are useful for lowering low-density lipoprotein levels, but interactions with calcineurin inhibitors should be considered. For DM, newly developed anti-DM medications (Sodium-glucose Cotransporter 2 Inhibitors and Glucagon-like peptide 1 receptor agonists) with independent renal and cardiovascular benefits could be considered, but only in patients with stable renal conditions. Large-scale studies on these new medications in recipient populations are lacking. Regarding gout treatment, neither allopurinol nor febuxostat should be administered concurrently with azathioprine (even though it is rarely used nowadays as an immunosuppressant). In conclusion, medication management in RTX is complex and often requires individualized treatment. While we can provide general medical care for kidney transplant recipients, it is crucial to refer them to specialists if their condition becomes too complicated to ensure the best outcomes for recipients.