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P190 -Frequency of Urinary Tract Infection by Multidrug Resistance Organisms and its Effect on Graft Function in Renal Transplant Recipients

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Background and Objectives: Urinary tract infection is a recurrent complication post renal transplant. It is frequently associated with poor graft outcomes and greater health related expenditures. The objective of this study is to determine the frequency of urinary tract infection by multidrug resistance organisms and its effects on allograft function in renal transplant recipients.

Methods: In this prospective, cross-sectional study, we screened post renal transplant patients visiting outpatient department with clinical signs and symptoms of urinary tract infection (UTI), defined as fever, frequent micturition, dysuria and urine discoloration. Multidrug resistance (MDR) or extensively drug-resistant (XDR) infections were determined by culture and sensitivity (C/S) and are defined as the organisms resistant to three or more types of antimicrobial drugs.

Results: We enrolled 97 renal transplant recipients of which 72 (74.2%) were diagnosed with clinical UTI. The mean age was 50±8 years. Out of 72 UTI patients, 28 (38.9%) were positive for MDR gram-negative UTI infection. *Escherichia coli* was found to be the most frequent (n=13, 46.4%) pathogen of MDR UTI in post renal transplant recipients and was significantly associated with antimicrobial MDR which included amikacin, amoxicillin, ampicillin, cefixime, cefuroxime, trimethoprim/sulfamethoxazole, fosfomycin, levofloxacin, nitrofurantoin, tazobactam and vancomycin. Other gram-negative organisms were *Klebsiella pneumoniae* and *Pseudomonas aeruginosa*. Recurrent UTI occurred in 7 (9.7%) patients. Graft pyelonephritis was found to be among 3 (10.7%) patients who had creatinine above 1.5 mg/dL during the early months of post-transplant.

Conclusion: Gram-negative organisms were the most frequent pathogens associated with MDR UTI and were responsible to affect graft function in renal transplant recipients. Therefore, adequate and vigilant antimicrobial prophylaxis should be considered to minimize the risk of infectious burden and graft rejection in post renal transplant patients.