

CLINICAL AUDIT OF URINARY TRACT INFECTIONS IN RENAL TRANSPLANT PATIENTS

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Aim:

To identify the prevalence, risk factors and outcomes for post-transplant urinary tract infections (UTI). To quantify the use of Bactrim® in the renal transplant population.

Background:

UTIs are the most common infections experienced by renal transplant recipients and are associated with increased morbidity and acute graft dysfunction. ^{1,2} Controversy exists on whether UTIs impair overall graft, patient survival and the benefit of UTI prophylaxis ^{3,4}

Methods:

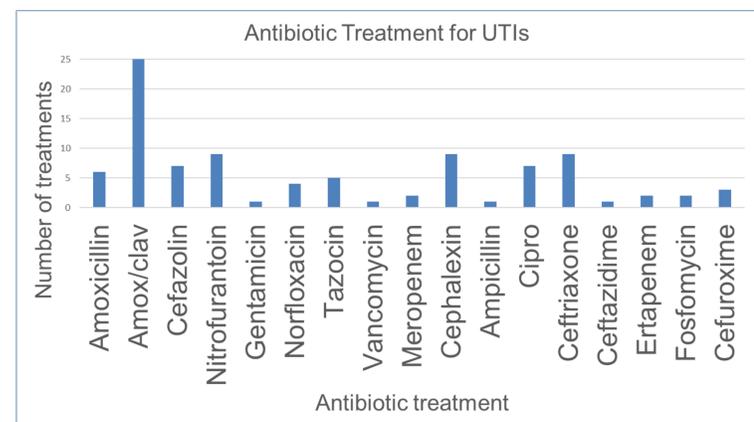
Seventy-two patients who had a renal transplant during a 5-year period charts were audited. Charts were analysed for UTIs presence and number, UTI risk factors (e.g. female, hyperglycaemia), changes in renal function and use of Bactrim®.

Results:

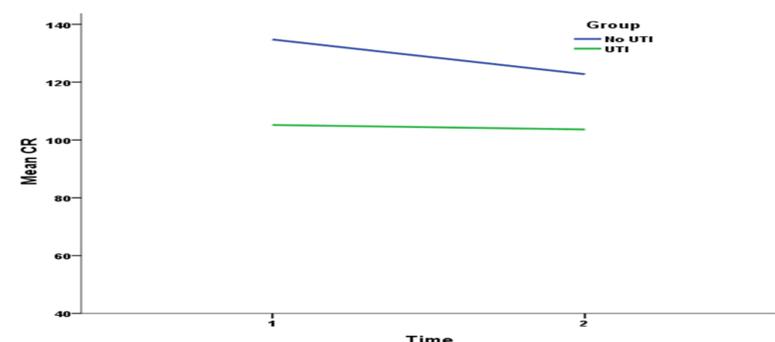
Of 72 renal transplant patients, 20 (28%) had at least one UTI (range 1-16 episodes, mean 3.85) in 5 years. Bactrim® (800/160mg) was used prophylactically by 92% (66/72) patients with 72% taking 0.5 tablet daily (52/72). Older age (p=0.015), female gender (p <0.001) and hyperglycaemia (p=0.037) were risk factors for developing a UTI. Females (OR 8.54), pre-existing urogenital abnormality (OR 12.96) and CMV viraemia at any time-point (OR 10.77) were statistically significant risk factors for a UTI on adjusted analysis. There was no significant change in renal function from baseline to two years post-transplant irrespective of UTI presence or frequency.

Description of UTI episode (UTI = bacteriuria + antibiotic treatment)	
Single	19 (25%)
Recurrent (3 or more UTIs in a 12 month period with different strains of microbes)	20 (26%)
Relapsing (UTI from failure to eradicate original infection)	38 (49%)

Most common organisms	
E.coli	41 (53%)
ESCAPPM	3 (4%)
Enterococcus faecalis	3 (4%)
Klebsiella	22 (29%)
Other	2 (3%)
Pseudomonas	4 (5%)
Culture negative	2 (3%)



Number of antibiotics received	
1	54 (70%)
2	18 (23%)
3	5 (6%)



Conclusions:

A UTI occurred in 28% renal transplant patients. A UTI is more likely to occur if female, elderly, have a pre-existing urogenital abnormality, hyperglycaemia or history of CMV viraemia. UTIs did not impair overall renal function at two years with no significant difference in renal function. Bactrim® prophylaxis did not reduce UTIs.

References

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