

IS ASYMPTOMATIC PYURIA A RISK FACTOR OF INFECTIOUS COMPLICATIONS AFTER SURVEILLANCE RENAL TRANSPLANT BIOPSY?

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Renal transplant patients undergo regular surveillance biopsies in order to diagnose subclinical rejection. Surveillance biopsy is a same day procedure and patients do not get admitted to the hospital, unless complication develops. Usual laboratory work-up before each biopsy includes urinalysis and subsequent urine culture, if urinalysis is positive. Urine culture results do not become available until the next day after the biopsy. The goal of our study was to see if pyuria in asymptomatic patient is a risk factor for developing symptomatic urinary tract infection or sepsis after transplant kidney biopsy. We defined pyuria as >10 WBC/hpf.

We reviewed urinalysis and urine culture results of 90 kidney transplant patients who had their surveillance biopsies performed since June 2006 until september 2007. All patients were asymptomatic. 22 out of 90 patients had pyuria (24%). 5 out of 22 patients who had pyuria had positive urine culture (22%). 1 out of 22 (4.5%) patients who had asymptomatic pyuria and positive urine culture developed symptomatic UTI (urinary tract infection) after the biopsy. None of the patients that had negative urinalysis developed UTI. The patient that developed symptomatic UTI was hospitalized and treated with antibiotics but never developed sepsis. UTI in this patient was caused by *Pseudomonas aeruginosa*.

Conclusion: 4.5% (1 out of 22) of patients that had asymptomatic pyuria on the day of renal transplant surveillance biopsy developed symptomatic UTI after the procedure. Larger study is needed to evaluate if asymptomatic pyuria is a risk factor for developing infectious complications after renal transplant surveillance biopsy.