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# 투석을 받는 말기 신부전 환자에서 무증상적 세균뇨 진단을 위한 기준

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# Diagnostic Relevance of Pyuria in Dialysis Patients with Urinary Volume for Detecting Urinary Tract Infection

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Urinary tract infections (UTIs) are common in dialysis patients, are associated with an increased rate of complications. Diagnostic accuracy of pyuria in the dialysis patients whose urinary volume were decreased, to identify UTIs, has not been adequately defined. So diagnostic performance of pyuria to dialysis patients by urinary volume per day is the object of this study.

We assembled a historical cohort of dialysis patients who did not have symptoms of the UTIs with urinalysis and urine culture data. We valuated the diagnostic performance and plotted receiver operating characteristic curves for different cutoff values of pyuria (>5, >10, >30, white blood cells per high-power field (WBC/HPF).

The study included 78 (34F, 44M) clinically stable hemodyalsis, peritoneal dialysis patients with diuresis ranged from <100, 100-400, >400 mL per 24 h. Rate of bacteriuria was 49%. E. coli is the most common bacterial strain in infected patients. Urinary WBC significantly increased with decrease in the urinary volume.

At each urinary volume per days, presence of pyuria (5-10 WBC/HPF, 10-30 WBC/H PF, >30 WBC/HPF) has 83%, 79%, 74% sensitivity and 46%, 49%, 55% specificity. But the presence of >30 WBC/HPF has low specificity (55%) and positive predictive values (67%), poor diagnostic performance in the identification of a positive urine culture.

So urine culture should be needed to determine further treatment

**Key Words:** 농뇨, 투석, 요로감염
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