

상염색체우성다낭신 환자에서 무증상농뇨의 의의

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Asymptomatic Pyuria Predicts Urinary Tract Infection in Autosomal Dominant Polycystic Kidney Disease Patients

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Background: Urinary tract infection (UTI) is estimated to occur in 30–50% of individuals with autosomal dominant polycystic kidney disease (ADPKD). However, the clinical manifestation and significance of asymptomatic pyuria in ADPKD are unknown.

Methods: We reviewed medical records of ADPKD patients who were registered to electronic database in Seoul National University Hospital from Aug. 1999 to Aug. 2010. Asymptomatic pyuria was categorized into 4 groups depending on its duration and frequency: no pyuria, transient, recurrent, and persistent pyuria). According to these groups, the incidence and risk of UTI (cystitis, acute pyelonephritis (APN), renal cyst infection) was examined.

Results: With a mean follow-up of 66.2 months, 181 out of 261 patients (69.3%) showed 703 episodes of asymptomatic pyuria, and 55 episodes of UTI (6.6%). Asymptomatic pyuria occurred in 0.49 episodes/patient/year. There was female predominance (61.3%) in asymptomatic pyuria group compared to no pyuria group (21.3%). Patients in recurrent and persistent pyuria group had more hypertension (92.2% vs. 81.0%, $p=0.012$) and end-stage renal disease (19.4% vs. 4.4%, $p<0.0001$) compared with no pyuria and transient pyuria group. Upper UTI (APN+cyst infection) occurred more frequently in patients with recurrent and persistent pyuria compared to patients with no pyuria and transient pyuria (Hazard ratio 4.1, 95% confidence interval 1.5–11.3; $p=0.006$, when adjusted for gender.)

Conclusion: As the episodes of asymptomatic pyuria were more frequent and longer, the risk of developing UTI significantly increased in ADPKD patients.

Key Words: 상염색체우성다낭신, 무증상농뇨, 요로감염
ADPKD, Asymptomatic pyuria, Urinary tract infection