

Seo Y J¹, Park S H¹, Kim D G¹, Kwon T G², Jung H C³, Park C H⁴, Chang H S⁴, Lee J H⁵, Seo J H⁶, Kim D Y⁷

1. Department of urology, Dongguk university college of medicine, 2. Department of urology, Kyungpook National University college of medicine, , 3. Department of urology, Yeungnam University college of medicine, , 4. Department of urology, Keimyung University college of medicine, 5. Department of urology, Daegu Fatima hospital, 6. Department of urology, Gumi Cha hospital, 7. Department of urology, Daegu Catholic University college of medicine

THE FACTORS THAT INFLUENCE THE CLINICAL OUTCOMES AFTER TRIAL WITHOUT CATHETER IN ACUTE URINARY RETENTION DUE TO BENIGN PROSTATIC HYPERPLASIA

Hypothesis / aims of study

Benign prostatic hyperplasia is a common problem experienced by aging men that can lead to serious outcomes, including acute urinary retention. Acute urinary retention can be either treated surgically or by placing Foley catheter to naturally void. We therefore studied the factors that influence the clinical outcomes after trial without catheter in acute urinary retention due to benign prostatic hyperplasia.

Study design, materials and methods

A total of 238 BPH patients who visited the emergency room first time with acute urinary retention was selected from March 2001 through March 2004, and reviewed retrospectively at 7 centers in South Korea. Patient's age, duration of symptom, time relapsed from last self voiding to the acute urinary retention, retention volume, prostate volume, serum PSA, duration of Foley catheterization, serum BUN/Cr values, existence of UTI, IPSS and QoL score, presence of trigger factors for acute urinary retention and whether α -blockers were used or not before acute urinary retention were investigated. The duration of symptom was set as the time passed from the first sign of symptom to the time of urinary retention, and the prostate volume was evaluated by the transrectal ultrasonography. Patients were divided into two groups, success (group 1) or fail (group 2) group with trial without catheter. Influencing factors and the characters between the two groups were compared using logistic regression analysis and the Ki-square test.

Results

From the 156 cases of group 1 and 82 cases of group 2, average age of each group was 70 ± 8.3 , 71.6 ± 7.5 ($p=0.56$), duration of symptom 3.6 ± 2.9 , 3.4 ± 2.6 years ($p=0.72$), time relapsed from last self-voiding to the acute urinary retention 9.6 ± 6.5 , 10.7 ± 6.7 hours ($p=0.29$), retention volume 719.9 ± 265.2 , 855.8 ± 365.5 ml ($p<0.01$), prostate volume 33.5 ± 9.9 , 42.9 ± 16.6 ml ($p<0.01$), serum PSA 5.7 ± 6.7 , 7.0 ± 6.2 ng/ml ($p=0.22$), duration of Foley catheterization 7.68 ± 6.80 , 10.26 ± 8.20 days ($p=0.02$). Serum BUN/Cr values, existence of UTI and presence of trigger factors for acute urinary retention showed no statistical differences between two groups, but however, patient who had α -blocker administrated before urinary retention showed significantly higher rate of self-voiding after the trial without catheter statistically ($p<0.01$). Univariate analysis revealed significant differences in retention volume, prostate volume, duration of Foley cauterization and usage of α -blockers before acute urinary retention between two groups. Multivariate analysis revealed statistically significant differences in retention volume ($p=0.01$), prostate volume ($p<0.01$) and usage of α -blockers before acute urinary retention ($p<0.01$) between two groups.

Interpretation of results

Prostate volume, retention volume and usage of α -blockers before acute urinary retention are thought to influence the clinical outcomes after trial without catheter in acute urinary retention due to BPH.

Concluding message

Prostate volume, retention volume and usage of α -blockers before acute urinary retention should be considered in the future treatment plans in patients of acute urinary retention due to BPH.

