

## **Association Between History of Acute Urinary Retention and Post-Transurethral Resection of Prostate Complications: A Population-Based Study**

**Introduction and Objective:** To assess the association between the history of acute urinary retention (AUR) and post-transurethral resection of prostate (TURP) complications.

**Materials and Methods:** We did a retrospective, national, population-based study using the Taiwan National Health Insurance Research Database. Men over 50 years old diagnosed with benign prostatic hyperplasia (BPH) who had AUR and underwent TURP between January 1, 2002, and December 31, 2004, were included in the AUR group. Those without AUR were included in the non-AUR group. Patients with prostate cancer, Parkinsonism, or multiple sclerosis were excluded. Postoperative complications of 2 groups, including re-Foley catheterization, hematuria, urinary tract infection (UTI), etc., were compared using crude odds ratios (ORs), 95% confidence intervals (CI), and Student's *t* test results. A  $\chi^2$  test was used for potential confounding factors, including preoperative urinary tract infection and anticoagulant use. Univariate and multivariable analyses of medical expenses were done.

**Results:** The AUR group contained 3305 men; the non-AUR group contained 1062. Re-Foley catheterization (13.8%), septicemia (1.1%), and shock (0.3%) were found only in the AUR group. More prevalent UTI (18.9% vs. 15.6%, OR: 1.26, 95% CI: 1.05-1.52), lower urinary tract symptoms (22.8% vs. 16.9%, OR: 1.45, 95% CI: 1.21-1.73), and blood transfusion (3.2% vs. 1.5%, OR: 2.19, 95% CI: 1.29-3.72) in the AUR group. The AUR group was also correlated with higher medical expenses. There were no significant differences in hematuria, lower urinary tract stricture, or re-surgical intervention of the prostate and second-line antibiotic use.

**Conclusions:** BPH patients in Taiwan with AUR and given TURP were associated with a higher risk of complications and higher medical expenses than those without. A preoperative warning is warranted for these patients before TURP. Early treatment of BPH meant delaying AUR development and a better prognosis.