

## OUTCOME ANALYSIS OF USING ANTIMUSCARINICS IN BPH PATIENTS WITH STORAGE SYMPTOMS PRIOR TO SURGERY – A NATIONWIDE POPULATION-BASED STUDY

### Hypothesis / aims of study

To use antimuscarinics for storage symptoms of BPH has become a common practice. This study investigated the surgical outcome of BPH patients with storage symptoms requiring antimuscarinics before surgery by analyzing a nationwide health insurance database.

### Study design, materials and methods

A urology dataset including 3,431,366 individuals was selected from the National Health Insurance Research Database (NHIRD) of Taiwan for the year 2006 to 2010. The claim data was used for the study. Patients with prostate cancer or bladder cancer, those with co-morbidities which might present with LUTS, and those who had undergone procedures which might cause urinary retention were excluded. We identified 2,102 patients receiving antimuscarinics within 6 months prior to TURP and have been followed for more than one year after surgery. The post-operative outcomes including acute urinary retention (AUR), repeated TURP and or drugging with lower urinary tract symptoms (LUTS)-related medications and were analyzed.

### Results

In 2,102 patients, 493 patients (23.5%) had AUR while using antimuscarinics before TURP. More patients with pre-operative AUR had larger prostate resection weight (>15gm) compared to those without (66.1% vs 52.5%,  $p<0.0001$ ). AUR occurred in 10% (210 of 2,102) patients after TURP. Those who had AUR prior to TURP (12.8% vs 9.1%,  $p<0.05$ ) and those with smaller resection weight (<15gm) (11.8% vs 8.5%,  $p<0.05$ ) were more likely to have AUR after TURP. After the surgery, 41.9% patients received re-treatment with repeated TURP (3.2%) or drugging with LUTS-related medications (38.7%). A lower re-treatment rate was observed in patients with AUR prior to surgery (37.3% vs 43.3%,  $p<0.05$ ) and those with larger (>15gm) resection weight (36.0% vs 4.3%,  $p<0.0001$ ).

### Interpretation of results

For BPH patients using antimuscarinics before operation, those who had AUR prior to operation or with smaller resection weight tend to have post-operative AUR. Those who had AUR prior to operation or with bigger resection weight tend to have lower retreatment rate.

### Concluding message

For using antimuscarinics in treating BPH patients with storage symptoms prior to surgery, the surgical outcomes including AUR and re-treatment with repeated surgery or LUTS medication are significantly associated with pre-operative AUR and the prostate size. Such information is invaluable for clinical practice.

### Disclosures

**Funding:** No **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** IRB committee of Taipei Veterans General Hospital **Helsinki:** Yes **Informed Consent:** No