

## THE RETROSPECTIVE ANALYSIS OF URINARY RETENTION IN WOMEN

### Hypothesis / aims of study

The incidence of acute urinary retention in women of all age is in general uncommon, with an estimated incidence of seven in 100,000 per year. However, incomplete emptying with elevated post-void residual (chronic urinary retention) is frequent finding in geriatric women and the incidence is increased in frailer patients. We often see female patients with urinary retention in our university hospital. The purpose of our study is to investigate the characteristic of urinary retention including types and its causes.

### Study design, materials and methods

Retrospectively we selected the patients with urinary retention from the medical records of 2013 and 2014 by the diagnosis name of urinary retention. After checking the content of medical record precisely, we selected the patients with urinary retention furthermore. The type of urinary retention was classified as acute (complete or painful) or chronic (partial or non-painful).

### Results

Sixty three female patients were selected for the final investigation. Their mean age was 63.9±19.7 year-old (18 to 93). These patients was classified as acute (52%, N=33) and chronic (48%, N=30). The age and body mass index of acute and chronic retention was not significantly different (58.9 ± 22.1 vs 68.1 ± 15.5 year old, 22.9 ± 4.1 vs 22.0 ± 4.2 Kg/M<sup>2</sup>). Causes of urinary retention in acute and chronic retention were shown in the table. Most frequent causes for retention were operation (24%) and poor performance status (24%) for acute urinary retention and neurogenic bladder (38%) for chronic urinary retention. The operation included surgery, gynaecology and orthopaedic operation. The midurethral sling operation for urinary incontinence was not included in this investigation. The initial management for urinary retention was catheterization including an indwelling balloon catheter or intermittent catheterization. Final catheter free rate was 90% (30/33) in acute and 50% (15/30) in chronic retention using temporal catheterization with administration of cholinergic and alpha-adrenergic agonist.

### Interpretation of results

In male patients, benign prostatic hyperplasia related urinary retention is most frequently noticed. However, the causes for urinary retention in female patients are various and complicated. In acute retention of female patients, almost catheter free was possible.

### Concluding message

Proper strategy for urinary retention in female patients is essential both acute and chronic type of urinary retention.

**Table Causes of urinary retention in female patients**

Acute(N=33)	N	Chronic(N=30)	N
Poor Performance status	8 (24%)	Neurogenic bladder	11 (38%)
Operation	8 (24%)	Poor Performance Status	9 (30%)
Constipation	4 (12%)	Mental illness	6 (20%)
Neurogenic bladder	4 (12%)	Gynecological disorders	2 (6%)
Inflammation & infection	2 (6%)	Others	2 (6%)
Alcohol	2 (6%)		
Mental illness	2 (6%)		
Others	3 (10%)		

### Disclosures

**Funding:** none **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** this study is a retrospective study. **Helsinki:** Yes **Informed Consent:** Yes