

## URINARY TRACT INFECTION AFTER URODYNAMIC STUDY: WHO IS MORE LIKELY TO GET THIS?

### Hypothesis / aims of study

Urodynamics (UDS) is a valuable investigation in the management of patients with lower urinary tract symptoms. It is a minimally invasive procedure that involves insertion of filling/pressure lines in the bladder. Urinary tract infection (UTI) is a known complication of catheterising the bladder. UTI after UDS is well documented, with the reported incidence of de novo bacteriuria after UDS in the range of 1.5%-36%.

This prospective study was carried out in order to find out the incidence of UTI after UDS in our department. We also wanted to identify those patients who are more likely to develop UTI after UDS. These high risk patients may benefit from prophylactic antibiotics.

### Study design, materials and methods

Two hundred and eighty patients underwent UDS between Sept 2013-March 2014. One hundred and sixty were men and 120 women who had UDS for lower urinary tract symptoms(LUTS) and urinary incontinence. In this prospective study 110 patients who attended the UDS clinic were asked to send midstream urine for culture and sensitivity (MSU) 72 hours after the UDS. MSU result for 100 patients (64 males and 36 females) was available for the study.

Urine dipstick test was carried out before UDS in all the patients. Following patients were excluded from the study: Patients with symptoms of UTI or urine dipstick positive for nitrite and leukocyte on the day of UDS, history of recurrent urinary tract infections and patients with catheters or those using self catheterisation.

The bladder was catheterised with a size 6 French dual channel catheter under sterile conditions. UDS was carried out using standard techniques. Patients were advised to increase fluid intake for a week after the UDS

### Results

Fourteen patients (13 men and 1 woman) were found to have positive MSU after UDS. The median age for the UTI patients was 71 years (range 40-81 years). These 13 men had UDS for LUTS and were noticed to have large residual urine (>100mls) before the UDS was carried out. The female patient had multiple sclerosis with voiding difficulties. Two men were found to have asymptomatic bacteriuria and did not receive any antibiotics. Rest of the men and the woman with positive MSU had symptoms of UTI and needed a course of antibiotics giving a symptomatic UTI rate of 12% after UDS in our department. Four patients with symptomatic UTI after UDS were diabetic. Eight patients had UTI due to E Coli, 3 with Klebsiella, 2 with Pseudomonas and one with Proteus.

### Interpretation of results

In our department the rate of UTI after UDS is 12%. It happened mostly in those men who had LUTS and had large residual urine. Only one woman out of 36 who had UDS developed symptomatic UTI. This woman also had large residual urine noted before UDS.

### Concluding message

Urodynamic study is associated with a considerable rate of morbidity due to UTI, particularly in men with large residual urine. These facts must be considered and discussed with the patients before UDS study is carried out. Prophylactic antibiotics should be considered in men with large residual urine.

### Disclosures

**Funding:** NONE **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** Patient consent taken. Wanted to see the incidence of UTI after UDS in our department. **Helsinki:** Yes **Informed Consent:** Yes