

URINARY TRACT INFECTIONS AFTER URODYNAMIC STUDIES: INCIDENCE AND PREDICTORS

Hypothesis / aims of study

Antibiotic treatment and prophylaxis before and after urodynamic studies (UDS) are controversial. We review the incidence of urinary tract infections (UTI) after UDS and analyze UTI predictors.

Study design, materials and methods

Retrospective analysis on a prospectively collected database on UDS was performed. Between March 2014 and November 2015, 290 patients underwent UDS. Patients who had at least 1 month follow-up were included for analysis (203). All patients had urine cultures taken before UDS. UTI risk factors were assessed. Positive urine culture was defined as > 1000 CFU/ml. Asymptomatic bacteriuria was defined as a positive urine culture without UTI symptoms. UTI was defined as a positive urine culture plus UTI symptoms. Patients with negative urine culture did not receive antibiotic prophylaxis. Patients with asymptomatic bacteriuria received antibiotic prophylaxis the day of the study. We did not perform UDS on patients with UTI. UTI was registered up to 30 days after the UDS. Fisher's exact test was used for analyzing predictors of UTI after UDS.

Results

Analysis included 203 patients. Male to female ratio was 0.53. Mean patient age was 59 years (range 21-92). Forty-seven patients (23%) had positive UC and received antibiotic prophylaxis. Patients with risk factors for UTI included indwelling catheter 10.84% (22), diabetes 9.85% (20), intermittent self-catheterization 13.8% (28), recurrent-UTI 18.7% (38), pelvic radiotherapy 8.8% (18), and pelvic-organ prolapse 6% (13). UTI incidence after UDS was 5,9% (12 patients): UTI incidence per group was 3,8% (6) in patients with negative UC, and 12,7% (6) in patients with positive UC. All infected patients received oral antibiotics and none required hospitalization. After univariable analysis, positive UC and AB were significant predictors of UTI. Multivariable analysis showed no significant predictors of UTI.

Interpretation of results

UTI incidence after UDS was low (5,9%), and infections were indolent. Patients with asymptomatic bacteriuria had more UTI after the study, but the difference was non-significant. There were no significant predictors of UTI after UDS in multivariable analysis, including asymptomatic bacteriuria.

Concluding message

Prospective, randomized controlled trials are necessary to determine whether antibiotic prophylaxis is necessary in patients with asymptomatic bacteriuria.

References

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Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** it is a retrospective analysis on a prospectively collected database **Helsinki:** Yes **Informed Consent:** Yes