

THE EFFECTIVENESS OF FOSFOMYCIN TROMETHAMINE AND CIPROFLOXACIN PROPHYLAXIS IN PREVENTING BACTERIURIA CAUSED BY URODYNAMIC STUDY, DO PATIENTS NEED PROPHYLAXIS

Hypothesis / aims of study

To determine the efficacy of prophylactic fosfomycin tromethamine (FT) and ciprofloxacin in preventing bacteriuria caused by urodynamic study (UDS).

Study design, materials and methods

A total of 478 patients presenting for UDS were offered enrollment in the study. Mid stream urine sample was taken 72 hours before and 5 days after the procedure. All patients underwent a standard UDS. The 466 patients who had sterile urine before intervention were included in the study. Patients were randomized into 3 groups. Group 1 received no prophylaxis (n; 133), Group 2 (n; 141) received ciprofloxacin (500 mg oral) one hour before the procedure, Group 3 (n; 192) received a single dose FT approximately 12 hours before the procedure. Bacteriuria were evaluated for each group.

Results

Bacteriuria were detected 2.3%, 4.3% and 1.6% in group 1, group 2 and group 3 respectively. The most common identified microorganism was Escherichia coli (50%). The proportion of extended spectrum beta-lactamase producing E. coli was 21%. Univariate analysis demonstrated that a history of urogenital operation ($p < 0.01$) and to be a gender female ($p < 0.01$) were significant risk factors for bacteriuria. On multiple logistic regression analysis the past urogenital operation history was the only significant independent risk factor for significant bacteriuria after UDS (OR: 14.95% CI: 0.82–238, $p < 0.01$).

Interpretation of results

The prevalence of bacteriuria after UDS was relatively low in current study population. Therefore, for most patients it may be unnecessary to use preventive prophylactic antibiotics. However, our results suggest that in patients with a previous history of urologic surgery the risk for significant bacteriuria is increased and use of prophylaxis should be considered.

Concluding message

The use of prophylactic antibiotics in urodynamic study does not reduce the risk of bacteriuria.

Specify source of funding or grant	No funding
Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No
Is this a Randomised Controlled Trial (RCT)?	Yes
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	we followed the good clinical practice guidelines and the current study was planned as an observational study
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes