

HIGH PREVALENCE OF DOCUMENTED ANTIBIOTIC ALLERGIES AND BACTERIAL RESISTANCE CAN IMPACT CARE OF WOMEN WITH RECURRENT URINARY TRACT INFECTIONS

Hypothesis / aims of study

Recurrent urinary tract infections (RUTI) are a common source of urology referrals costing the U.S. healthcare system \$2.4 billion per year (1). Many women with RUTI experience adverse reactions to common antibiotics while others develop bacterial resistance to first-line therapy (2). The prevalence of documented allergies to common urinary tract antibiotics and bacterial resistance patterns in a series of women with RUTI was investigated as these factors may complicate urological care.

Study design, materials and methods

Following IRB approval, electronic medical records of patients with RUTI, resistant or not responding to antibiotic treatment, and with findings of severe cystoscopic inflammation of the trigone treated with endoscopic fulguration, were reviewed. Data collected included age, ethnicity, number of documented allergies to oral urinary antimicrobials, the type of allergic reaction, and the last documented positive urine culture with bacterial type and susceptibility.

Results

Between 2004-2008, 70 patients (mostly Caucasian; mean age: 60 ± 15.8 years) were treated. A total of 83 allergies to commonly used antibiotics for urinary infection were noted in 44 patients, including 30 (36%) with documented reactions: 17 (57%) rash, 5 (17%) nausea or vomiting, 2 (7%) respiratory distress, 1 (3%) anaphylaxis, and 5 (17%) other reactions. Of the 83 allergies, 27 (33%) were to penicillins or cephalosporins, 21 (25%) to sulfa, 13 (16%) to fluoroquinolones, 9 (11%) to nitrofurantoin, and the remaining 12 (14%) to other antibiotics. The mean number of allergies was 1.19 ± 1.38, range 0-7. Twenty-six patients (37%) had no allergy, 35 (50%) 1-2, and 9 (13%) ≥ 3. Of the 70 patients, 35 (50%) had a positive urine culture with antibiotic susceptibilities available. Thirteen (34%) of the cultured pathogens were resistant to 0 antibiotics, 9 (24%) to one, 8 (21%) to two, and 9 (24%) to 3 or more. Pathogens were E.Coli (20), Enterococcus (5), Proteus (3), Klebsiella (3), Staphylococcus (2) and 2 organisms (2)

Interpretation of results

Over half of the women with recurrent urinary tract infections in the population studied had documented allergies to one or more common antibiotics. Most women with RUTI in this study had urine cultures showing resistance to at least one common antibiotic. These findings highlight the complexity of care posed by RUTI.

Concluding message

In this series of challenging women with longstanding history of RUTI, we found a high rate of documented allergies to common urinary antibiotics as well as urine cultures showing resistance to one or more organisms—making this a challenging population of patients to treat.

References

1. Urological disease in America 2007
2. Florian et al. Current opinion in Urology 19:369, 2009

<i>Specify source of funding or grant</i>	The Cain Foundation
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Institution Review Board at UT Southwestern Medical Center
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes