

ARE URINARY TRACT INFECTIONS AND URINARY INCONTINENCE IN WOMEN ASSOCIATED WITH EACH OTHER?

Hypothesis / aims of study

To determine if an incidental urinary tract infection (UTI) in women with urinary incontinence (UI) impacts the final diagnosis on urodynamics.

Study design, materials and methods

This is a retrospective chart review study of all new female patients presenting to the Urogynecology Service at our tertiary care center with the chief complaint of UI from August 2004 to November 2005. Demographic data collected include patient's age, body mass index (BMI), race, and parity. A structured history and physical examination were performed on all patients, including voiding diary, urine analysis and culture. Patients were subsequently scheduled for a urodynamic evaluation and as clinically indicated. Patients diagnosed with a UTI were treated with antibiotics before undergoing the urodynamic studies (UDS). Women with or without UTI were compared to determine whether there existed a difference in the prevalence of final urodynamic diagnosis of UI and its three subtypes (stress, urge and mixed) between the two groups. Patient demographic and outcome measures were compared using the Two-sample t-test, Wilcoxon Rank sum test, and Fisher's Exact test.

Results

Of the total 328 new patients with UI, 55 (17%) patients had an incidental UTI based on a catheterized urine culture specimen. The mean age (62 versus 55 years), BMI (32 versus 31 kg/m²), and median parity (3 versus 2) were similar between those with and those without UTI, $P > 0.05$. The overwhelming majority (>98%) of patients in both groups were white. The prevalence of urodynamic proven diagnosis of UI in the two groups was similar (54/55 (98%) in the UTI versus 268/273 (98%) in the no UTI group, respectively. The prevalence of stress (55%), urge (18%), and mixed UI (25%) in the UTI group was not significantly different from the group without UTI with a distribution of 61% for stress, 16% for urge, and 22% for mixed UI, $P = 0.78$.

Interpretation of results

Although 17% of women with UI in our study had an incidental UTI, its presence had no impact on the prevalence and distribution of the final urodynamic diagnosis of UI and its subtypes. These findings contradict the commonly held belief that UTI's are associated with UI in women.

Concluding message

Based on the results of our study, Urinary Tract Infections and Urinary Incontinence are not associated with each other.

<i>Specify source of funding or grant</i>	NONE
<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>	Geisinger Institutional Review Board
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	No