

CORRELATION BETWEEN SYMPTOMS OF URINARY INCONTINENCE AND URODYNAMIC FINDINGS IN POSTMENOPAUSAL WOMEN.

Hypothesis / aims of study

In women presenting with complaints of urinary incontinence, diagnosis of incontinence type and initial treatment choices are often made based solely on reported symptoms. Urodynamic investigation is often reserved for those women with complex symptomatology or for those who do not respond to initial treatment. However, patient history and validated incontinence symptom scales are inadequate predictors of eventual urodynamic diagnosis. ⁽¹⁻³⁾ Presenting symptoms were predictive of urodynamic diagnosis in 64 to 80% of women with stress urinary incontinence and only 25 to 55% with urge urinary incontinence. ^(2,3) The objective of this study was to determine the correlation of symptom-based diagnosis and urodynamic diagnosis of urinary incontinence in postmenopausal women.

Study design, materials and methods

Women, with signs or symptoms of urinary incontinence were identified from a cohort of postmenopausal sisters, who were recruited for symptom- and clinical assessment as part of a study on urinary incontinence and prolapse in postmenopausal nulliparous women and their parous sisters. The participants completed a survey including questions about the presence of symptoms related to urinary incontinence, a quality of life impact questionnaire and questions inquiring about past medical and surgical history and medications. Study participants then underwent a clinical assessment for pelvic support and urinary incontinence. All subjects included in this study also underwent urodynamic evaluation. In evaluation of the data, descriptive tabulations are presented of relevant demographic and clinical variables. The internal review board has approved this study.

Results

One hundred and three postmenopausal women with symptoms of urinary incontinence were identified. The average age was 61.2 (SD ±9.2). The subjects were predominantly white (95.1%). Symptom diagnosis matched urodynamic diagnosis 50% of the time. Of the subjects who additionally reported urine loss on 48-hours voiding diary, the positive predictive value (PPV) of symptoms for incontinence of any type was 0.77. Report of urine loss with activity had a PPV of 0.73, for the urodynamic diagnosis of stress urinary incontinence. Urgency related symptoms showed a PPV of 0.35 (6/17) for urodynamic detrusor overactivity, and mixed urinary incontinence showed a PPV of 0.2. In subjects reporting symptoms of mixed urinary incontinence, the PPV for the urodynamic diagnosis of any urinary incontinence was 0.77.

Interpretation of results

In this population of postmenopausal women, the overall correlation of symptom-based diagnosis with urodynamic diagnosis is poor. Documentation of incontinence in a voiding diary improves the positive predictive value of clinical diagnosis of incontinence. The highest correlation between symptoms and diagnosis was observed with stress urinary incontinence. Correlation was low for urodynamic diagnosis of both urge urinary incontinence and mixed urinary incontinence. The predictive value of symptoms of incontinence for any urodynamic diagnosis of urinary incontinence was lower than might be expected and suggests a low sensitivity of urodynamic studies. Urodynamic testing conditions may not be adequate to detect incontinence in all symptomatic women.

Concluding message

Overall, the correlation of symptoms and urodynamic findings of urinary incontinence is poor. It is highest with stress and lowest with mixed incontinence.

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References

1. Neurourol Urodyn 2002;21(1):30-5.
2. Int J Gynaecol Obstet 1990;32(93):255-9.
3. J Urol 1987;137(1):68-71.

CLINICAL TRIAL REGISTRATION: This clinical trial has not yet been registered in a public clinical trials registry.

HUMAN SUBJECTS: This study was approved by the Internal Review Board of the University of Rochester and followed the Declaration of Helsinki Informed consent was obtained from the patients.