

THE URODYNAMICS OF FEMALE MIXED URINARY INCONTINENCE: COMPARISON WITH PATIENT SELF-REPORTING AND CLINICAL EVALUATION

Hypothesis / aims of study

Mixed urinary incontinence (MUI) is a common referring diagnosis for urodynamics (UDS), and some authors recommend routine UDS for women with MUI. Our objective is to determine the utility of UDS in evaluating female MUI by correlating UDS findings with patient self-reporting of symptoms.

Study design, materials and methods

80 women with a clinical diagnosis of MUI underwent history and physical, videourodynamics, and self assessment of bother due to urge incontinence (UUI) and stress incontinence (SUI) via the UDI-6 questionnaire. Valsalva leak point pressure (VLPP) and bladder neck mobility (BNM) were assessed by objective SEAPI scoring. Continuous data were compared using student's t-test and categorical data via the Pearson Chi Square.

Results

The mean age was 63 years. 29% of the cohort had evidence of detrusor overactivity (DO) and 22% leaked due to DO. This represented 78% of all patients with demonstrable DO. Patients with DO had a lower mean bladder capacity than those without it (209cc vs. 332cc, $p<0.0001$) and patients who leaked due to DO had a lower mean bladder capacity than those who did not (189cc vs. 282cc, $p<0.001$). Among patients who leaked due to DO, the detrusor pressure during leakage was lower in patients who had a UDS demonstrable VLPP (13.6 vs. 32.9 cm water, $p=0.0019$). There was no association between BNM and the finding of DO or leak due to DO. 32% of the cohort had a demonstrable VLPP with a mean VLPP of 57.4 cm water. There was no association between VLPP and bladder capacity or BNM.

65% of patients who completed the UDI-6 were moderately to severely bothered by both SUI and UUI. UDS most commonly showed an absence of both leakage with valsalva and DO in 44% of patients. Only 4% of patients had UDS evidence of MUI. 70% of patients reported moderate-severe bother due to UI, but 73% of these patients had no evidence of DO. Additionally, 92% of this subset of patients with moderate-severe bother due to UI also complained of moderate-severe bother due to SUI, but only 28% had a demonstrable VLPP. Overall, 81% of patients reported moderate-severe bother due to SUI, but only 34% of these had a demonstrable VLPP. 80% of patients with moderate-severe SUI also reported moderate-severe bother due to UI, but only 27% had evidence of DO.

Interpretation of results

The majority of women undergoing UDS for MUI will fail to have UDS evidence of MUI. Patient self-reporting via the UDI-6 agreed with clinical assessment and the majority of patients were moderately to severely bothered by both components of MUI. In women with MUI, BNM is not associated with VLPP or DO.

Concluding message

The clinical assessment of women with MUI is important since the majority of women with MUI will report symptoms of MUI but will fail to demonstrate both components of MUI on urodynamic assessment.

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HUMAN SUBJECTS: This study was approved by the UCLA Institutional Review Board and followed the Declaration of Helsinki Informed consent was not obtained from the patients.