

Author(s) SC Radley, HD Bradshaw, DJ Rosario, CR Chapple

Institution, city, country Department of Urology Research, Royal Hallamshire Hospital, Sheffield, England

Title (type in CAPITAL LETTERS, leave one blank line before the text)

HAND WASHING DETRUSOR INSTABILITY : AN IMPORTANT ENTITY?

Aims of study

To assess the clinical significance of involuntary detrusor activity provoked by hand washing during ambulatory urodynamics (AUM) in women with symptoms of urgency and/or urge incontinence.

Subjects and methods

97 women with symptoms of urgency and/or urge incontinence underwent AUM according to a standard protocol which included two episodes of provocative testing. Patients performed hand washing in cold running water in the washroom for one minute. During this period they were asked to continue to withhold voiding and to record symptoms of urgency or leakage and their severity in event diaries. Following completion, studies were analysed independently of the patient, employing the diary and event markers to assess associated symptoms. Detrusor instability was diagnosed if phasic detrusor activity occurred concurrently with symptoms.

All women also underwent conventional static cystometry, during which patients in whom DI had not already been demonstrated, performed handwashing in a bowl of cold water whilst listening to running water.

Prior to either investigation, symptoms were assessed using the Bristol female lower urinary tract symptoms questionnaire (BFLUTS).

Results

Hand washing provoked bladder overactivity in 56 of the 70 AUM studies where DI was demonstrated (80%). Symptoms were reported by all 56 women with provoked contractions and urge incontinence occurred in 34 (60.7%). 7 patients had DI provoked by hand washing in 34 studies (20.6%) which were at all other times 'stable'. Only 2 of these 7 were found to have DI during conventional static cystometry. When comparing symptoms recorded on the BFLUTS questionnaire, 5 of these 7 patients had reported urinary urgency 'most' or 'all of the time' and all 7 had reported urge incontinence as occurring at least 'sometimes'.

A total of 12 patients experienced urge incontinence only during instability provoked by hand washing. When comparing provoked detrusor activity with spontaneous, contractions were found to be of similar amplitude and duration to the maximum amplitude of spontaneously occurring DI and associated with a similar incidence of incontinence (Table 1).

DI was detected during CMG in 28 women. However, hand washing provoked DI in only 5 women in whom DI had not already been detected.

Characteristics of spontaneous and provoked detrusor activity	spontaneous DI (n=62)	provoked DI (n=56)	p
Number with leakage during DI	28 (62.2%)	34 (60.7%)	
Maximum amplitude DI (cmH ₂ O)	34.2	32.7	0.247*
Maximum duration DI (seconds)	110	98	0.365*

* Student's T Test

Author(s) SC Radley, HD Bradshaw, DJ Rosario, CR Chapple

Conclusion

Handwashing during ambulatory urodynamics is a potent stimulus to involuntary detrusor activity, whether provoked by the sound, sight and sensation of running water, or the environment of the washroom itself. In a significant proportion of women complaining of urge incontinence, the symptom was only reproduced and explained by this manoeuvre. By comparison, hand washing during static cystometry was found to be relatively ineffective as a provocative test. These observations strengthen the view that natural fill cystometry permits more accurate reproduction of patients' usual detrusor function than conventional static cystometry. Hand washing should be included as an integral element of AUM assessment of detrusor function and provoked DI interpreted in the context of the patients symptoms.