Referral patterns and diagnoses in women attending a urodynamic unit

Declan P Keane, Seumas D Eckford, Angela M Shepherd, Paul Abrams

Urodynamic Unit, Southmead Hospital, Bristol BS10 5NB
Declan P Keane, *research registrar*
Seumas D Eckford, *research registrar*
Angela M Shepherd, *associate specialist*
Paul Abrams, *consultant urologist*

Correspondence to:
Dr Keane.

BMJ 1992;**305**:808

Although it is recognised that the prevalence of urinary incontinence increases with age,[1] it is not known whether this is mirrored by a similar increase in referral for urodynamic studies. The aim of this study was to determine the association with age of referral patterns and urodynamic diagnoses in women with urinary incontinence.

Patients, methods, and results

We reviewed the urodynamic diagnoses of 2845 women seen over 10 years (1981-90). The review included all patients with symptoms of urinary incontinence who were neurologically intact and had no history of surgery for incontinence. All patients were examined by filling and voiding cystometry, and the urodynamic diagnosis assigned to each patient was based on International Continence Society definitions.[2]

The number of patients referred in each age group and their urodynamic diagnoses are shown in the table. Review of the referral pattern indicates that the peak age was in the perimenopausal years, 1548 (54%) of the patients being in the 36-55 year age range. The most striking feature was the small number of patients attending in the older age groups, only 395 (14%) patients being over the age of 66. That age group has a reported prevalence of incontinence of 11·6%.[1]

The trend in urodynamic diagnosis showed that genuine stress incontinence was the most common diagnosis overall, being found in 1774 (62%) of the patients. These included patients with pure genuine stress incontinence and those with mixed incontinence. The percentage with genuine stress incontinence increased steadily into the perimenopausal years and thereafter remained relatively constant. There was a gradual increase in detrusor instability with age, ranging from 16% in the 16-25 age group to 45% in the over 75 group, again combining those with pure instability and those with mixed incontinence.

An interesting feature was the number of normal urodynamic findings in young women. The percentage with normal findings decreased with age from 67% in the 16-25 age group to 9% in the over 76 age group. Overall 611 (21%) patients had normal urodynamic findings.

Age related referrals for urodynamic investigations and urodynamic diagnoses applied. Figures are numbers of referrals (percentage of age group with specific diagnoses in parentheses)

	16-25	26-35	36-45	46-55	56-65	66-75	≥76	Total
Genuine stress incontinence	11 (17)	142 (40)	418 (52)	407 (55)	236 (49)	148 (48)	39 (46)	1401
Detrusor instability	3 (5)	64 (18)	98 (12)	93 (13)	67 (14)	50 (16)	13 (15)	388
Mixed	7 (11)	15 (4)	89 (11)	101 (14)	81 (17)	55 (18)	25 (30)	373
Hypersensitive	0	23 (6)	19 (2)	12 (2)	13 (3)	5 (2)	0	72
Normal	44 (67)	113 (32)	184 (23)	127 (16)	83 (17)	53 (16)	7 (9)	611
Total	65	357	808	740	480	311	84	2845

Comment

The value of urodynamic investigations in women with lower urinary tract dysfunction is now well established,[3] based on their reliability and reproducibility[4] and the low morbidity associated with their performance.[5] Thus the most striking feature of our study was the scarcity of patients attending in the geriatric age group. We feel that urodynamics is more relevant in an elderly population in whom sensory deficits and poor memory combine to produce a substandard history, these being the patients more likely to have a specific urodynamic abnormality explaining their symptoms as our study shows.

The trends in urodynamic diagnoses with age show that there was a gradual increase in detrusor instability with age, but genuine stress incontinence increased only up to the menopause. Although we still believe that genuine stress incontinence increases with age, the apparent peak of this condition in the 36-55 age group represents a time when the condition is more socially or physically restricting on the patient.

Our results showed that 21% of the patients had no urodynamic abnormality on conventional studies. This was partially due to the artificial nature of the test and the confined time available to perform the studies. As a result we now rely on ambulatory urodynamics in patients who have normal conventional studies despite having marked urinary symptoms. These studies are more physiological as they depend on a natural bladder fill technique and allow bladder function to be studied over a longer time.

Our study suggests that the low referral pattern in older women needs to be addressed, and we feel the onus for this rests with primary health care workers. Improved awareness of continence and urodynamic services is also required in order that patients will more readily refer themselves for treatment.

1 Thomas TM, Plymat KR, Blannin J, Meade JW. Prevalence of urinary incontinence. *BMJ* 1980;**281**:1243-5.
2 Abrams P, Blaivas JG, Stanton SL, Anderson JT. The standardization of terminology of lower urinary tract function. *Br J Obstet Gynaecol* 1990; suppl 6:1-16.
3 Versi E, Cardozo L, Anand D, Cooper D. Symptom analysis for the diagnosis of genuine stress incontinence. *Br J Obstet Gynaecol* 1991;**98**:815-9.
4 Sorensen S, Gregersen H, Sorensen SM. Long term reproducibility of urodynamic investigations in healthy fertile females. *Scand J Urol Nephrol* 1988;**114**:35-41.
5 Carter PG, Lewis P, Abrams P. Urodynamic morbidity and dysuria prophylaxis. *Br J Urol* 1991;**67**:40-1.

(Accepted 20 August 1992)

Drugs and the exercise test

K W Muir, J C Rodger, J S DeBono, H McDonald, J B Irving

Correspondence to:
Dr Rodger.

BMJ 1992;**305**:808-9

Cardiac and other drugs are recognised to interfere with the interpretation of exercise tests.[1,2] A 1989 survey (unpublished) suggested that there might be important differences between Scottish hospitals in whether or not drugs are discontinued before exercise testing. This prompted a more detailed reappraisal.

Methods and results

Questionnaires were sent to 30 teaching and district general hospitals in Scotland. Replies were received from all and were followed up by telephone questioning of the consultant responsible for the exercise service. Details were sought of the hospital policy on stopping drugs and, when there was none, on the consultant's personal policy. Specific inquiry was made regarding digoxin, β blockers, calcium antagonists, nitrates, and antihypertensive therapy and consultants were invited to suggest any other drug which they would consider stopping. Duration of stopping, whether the decision was affected by the indication for testing, and indications

BMJ: first published as 10.1136/bmj.305.6857.808 on 3 October 1992. Downloaded from http://www.bmj.com/ on 4 April 2024 by guest. Protected by copyright.