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**Title:** FEMALE URINARY RETENTION: A CLINICAL AND URODYNAMIC EVALUATION OF THE ETIOLOGY

### **Aims of Study:**

The problems of urinary retention in women have probably been understated. Women who develop sudden inability to micturate do not always have painful retention, and the retention often becomes recurrent or permanent. Many apparently have an underlying etiology or chronic problem.

This is a prospective study to analyse the etiological factors and the urodynamic features of urinary retention in female patients of various age groups.

### **Methods:**

Between May 1999 and April 2000, 83 consecutive female patients admitted with urinary retention into a tertiary urological centre were analysed. Detailed history was obtained to identify the possible etiological cause(s). Apart from thorough examination, blood and urine tests, and ultrasonography, all patients were subjected to urodynamic (cystometric) assessment.

### **Results:**

There were 83 patients: 33, 32, 13 and 5 in the  $\geq 80$ , 60-79, 40-59 and 20-39 year age groups respectively. Fifty-four patients had definable etiological factors: 9 anorectal conditions, 16 neurogenic (including myelopathy, recent CVA, brain abscess), 4 post-irradiation for cancer of cervix, 2 urethral stricture, 9 postoperative (anti-incontinence, abdominal, pituitary) and 14 orthopaedic problem (hip surgery, below-knee amputation, fracture pelvis & hip). Cystometric assessment revealed the following findings regarding detrusor contractility:

n	Acontractile	Hypocontractile (Max Pdet <20 cmH <sub>2</sub> O)		
	$\geq 80$	33	26	7
	60-79	32	19	5
	40-59	13	11	1
	20-39	5	2	0

Only 12 / 83 (14 %) patients had 'normal' detrusor contractility, with none seen in age  $\geq 80$  years.

Among those patients with recordable detrusor contraction for analysis, 18 patients had obstructed voiding - being defined as  $R (Pdet \text{ at } Q_{max} / Q_{max}^2) > 0.2$ . The incidence was highest in the 20-39 year age group (40 %), and (15 %), (28 %), (15 %) in the age groups of 40-59, 60-79,  $\geq 80$  years respectively.

28 patients had low bladder compliance - being defined as  $< 30 \text{ ml/cmH}_2\text{O}$ . Among the non-neurogenic and non-irradiated bladders, all except one were of age  $\geq 60$  years, with an incidence of 15 / 51 (29 %), and 8 of these were acontractile as well.

**Conclusions:**

Underactive detrusor function was apparently, in most women, the underlying cause of urinary retention, which was often precipitated or brought to attention by an acute provocative event. Cystometric evidences of low bladder compliance and obstructed voiding in significant proportions of patients further suggested the importance of bladder and probably urethral dysfunction respectively as underlying etiological factors contributory to urinary retention in women.

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