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Title (type in
CAPITAL
LETTERS)**LOW COMPLIANCE IN NEUROLOGICALLY INTACT WOMEN; A
TREATABLE ENTITY?****Aims of Study**

Altered bladder compliance has been implicated as one of the factors contributing to disordered upper urinary tract function in patients with neurological disease or detrusor damage (1). The significance of this finding in neurologically intact patients has not been well described. There has been some debate regarding the veracity of this finding on static urodynamics (2) and the nature of compliance itself. This study aimed to examine the relationships between the finding of a low compliant bladder in a group of neurologically intact women and lower urinary tract symptoms, other urodynamic diagnoses and response to treatment.

Methods

All women attending the continence clinic requiring a cystometrogram for investigation of lower urinary tract symptoms were eligible for the study. A full symptom history was taken for each patient. Urodynamic studies were performed as previously described, those with a raised end filling pressure which did not fall after one minute of cessation of filling were defined as having low compliance. Patients with underlying detrusor instability were treated with a combination of bladder retraining and anticholinergic therapy; those with sphincter incompetence were initially treated conservatively. All patients were routinely reviewed at six to eight weeks and their subjective response to treatment observed. Response was dichotomized (worse, no change vs. mildly better moderately, markedly better, cured) to allow a within group comparison of treatment given. Analysis was performed using descriptive and non-parametric testing (Mann-Whitney U), significance was assigned at the $p < 0.05$ level.

Results

181/ 2801 (6.4%) women had low compliant (LC) bladders, LC mean age 51(SD16) vs 52(SD18) years. (P=NS). The prevalence of associated pathology is shown in table 1. There was a statistically significant negative association of stress incontinence with low compliance. Subjective response to initial treatment and change in urinary symptoms for those women with coexistent detrusor instability are shown in Table 2. There was no significant change in urinary tract symptoms for those women reporting an improvement when compared to women with a poor subjective response. 32 women in whom LC only was identified were treated with anticholinergic medication, 20 reported a positive response to treatment, there was no statistically significant difference in change for either symptom

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measure. No subanalysis altering the division according to subjective response was able to differentiate those women who experienced an improvement in either frequency or incontinence episodes.

	Detrusor instability +ve n,(%)	Stable bladder n,(%)
Stress incontinence +ve	17(9.3)	16(9.1)
Stress incontinence -ve	70(38.6)*	78(43)

P<0.001
Table 1

	Response to treatment	
	Worse / No change	Mild/Moderate/Marked improvement/ Cure
Low Compliance+, DI+	38	32
Median change in frequency (range)	4 (-23 - +14)	6 (-18- +19)
Median change in incontinence episodes (range)	0 (-3 - +11)	0 (-1 - +10)
Low Compliance+, DI+, Stress+	6	11
Median change in frequency (range)	5 (-5 - +15)	5 (-1- +13)
Median change in incontinence episodes (range)	1.5 (-1 -2)	1 (0 -+4)
Low Compliance+, stable	48	30
Low Compliance+, Stress+	10	6

Conclusion

Low bladder compliance is an uncommon condition in neurologically intact women but it is a difficult problem to treat. Unlike women with neurological disease, there appears to be no risk to the upper urinary tract. This study shows disappointing early results with many women experiencing no change in their urinary symptoms regardless of treatment. This is in keeping with previous work, which examined a longer term of period of management (4). The presence of a raised end filling pressure on static urodynamics is associated with a poorer early outcome following treatment regardless of co-existent disease entity.

References

1. *J Urol* 1994; **151**: 965-966
2. *B J Urol* 1989; **64**: 150-154
3. *J Urol* 1996; **154**: 1984-88
4. *Br J Obstet Gynaecol* 1997; **104**: 988-93