

CAN WE CLARIFY THE CLINICAL AND URODYNAMIC PROFILE OF THE WOMAN WITH DETRUSOR OVERACTIVITY?

Hypothesis / aims of study

This aim of this study is to compare the clinical and urodynamic associations of women with and without detrusor overactivity (DO, no-DO) in order to establish a profile for the woman more likely to have DO.

Study design, materials and methods

592 women attending for an initial urogynaecological / urodynamic assessment took part in this prospective study. In addition to a full clinical assessment, all women underwent free uroflowmetry, residual urine volume (RUV) measurement (by vaginal ultrasound [1]) and multichannel filling and voiding cystometry. Data were separated into those having (i) DO ; (ii) no-DO. Comparative associations were sought for (iii) age; (iv) parity; (v) presenting symptoms; (vi) presence of at least 1 documented urinary tract infection (UTI) in the previous 12 months; (vii) 2 or more (recurrent) documented UTI in the previous 12 months; (viii) prior hysterectomy; (ix) prior continence surgery; (x) menopause; (xi) menopause and HRT use; (xii) sign of clinical stress leakage; (xiii) retroverted uterus; (xiv) anterior vaginal prolapse; (xv) uterine prolapse; (xvi) posterior vaginal prolapse; (xvii) apical vaginal prolapse; (xviii, xix) maximum, average urine flow rate (MUFR, AUFR) centiles, Liverpool Nomograms; (xx) mean RUV mls; (xxi, xxii) voiding difficulty: VD1, VD2 (MUFR, AUFR under 10th centile Liverpool Nomogram [2] and/or RUV >30mls); (xxiii) diagnosis of urodynamic stress incontinence (USI); (xxiv) diagnosis of uterine and/or vaginal prolapse (grade >0).

Results:

The table shows the comparison, with p-value, of the clinical and urodynamic parameters of women with no-DO and those with DO.

Interpretation of results

The clinical and urodynamic profile of the woman with DO has clear and significant differences from that of the woman with no-DO. Women with DO are seen to have significantly lower parity. They have significantly more of the classic overactive bladder (OAB) symptoms of frequency, nocturia, urgency and urge incontinence. They are less likely to have the symptoms, signs or diagnoses of stress incontinence (USI) and/or prolapse than women with no-DO.

Concluding message

Women with DO are seen to have a clearer clinical and urodynamic profile with significantly more OAB-type symptoms, lower parity and significantly less symptoms, signs and diagnoses of stress incontinence and prolapse than women with no-DO.

1: Brit J Urol , 1989,64:347-349

2: Brit J Urol, 1989, 64:21-30

	No DO	DO	p-value
Number of patients	518	74	
Median age (range)	58 (16-98)	56 (23-91)	0.394
Median parity (range)	2 (0-9)	1.5 (0-6)	<0.001*
Presenting symptoms			
Stress incontinence	310 (60%)	33 (45%)	0.013*
Urge incontinence	231 (45%)	51 (69%)	<0.001*
Voiding difficulty	52 (10%)	11 (15%)	0.208
Frequency	162 (31%)	34 (46%)	0.012*
Nocturia	101 (20%)	25 (34%)	0.005*
Urgency	138 (27%)	29 (39%)	0.025*
Prolapse	168 (32%)	13 (18%)	0.009*
UTI			
1 or more	172 (33%)	24 (32%)	0.895

2 or more	114 (22%)	12 (16%)	0.255
Prior hysterectomy	175 (35%)	18 (24%)	0.081
Prior continence surgery	87 (17%)	7 (9%)	0.106
Menopause	363 (70%)	47 (64%)	0.252
Menopause and HRT	255 (49%)	36 (49%)	0.926
Clinical stress leakage (sign)	373 (72%)	50 (54%)	0.002*
Retroverted uterus (uterus present)	111 (35%)	14 (25%)	0.180
Prolapse			
Anterior vaginal (Grade>0)	301 (58%)	28 (38%)	0.001*
Uterine (Grade>0)	344 (66%)	31 (42%)	<0.001*
Posterior vaginal (Grade>0)	287 (55%)	20 (27%)	<0.001*
Apical vaginal (Grade>0)	129 (25%)	6 (8%)	0.001*
MUFR (Median)	15.3	12.35	0.280
AUFR (Median)	6.9	6.75	0.558
RUV (mean – mls)	26.8	9.22	0.121
VD1	207 (40%)	23 (31%)	0.143
VD2	212 (41%)	20 (27%)	0.022*
USI	385 (74%)	43 (58%)	0.004*
Prolapse (Grade>0)	334 (64%)	27 (36%)	<0.001*

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DISCLOSURES: NONE

HUMAN SUBJECTS: This study did not need ethical approval because Ethics committee approval not required but followed the Declaration of Helsinki Informed consent was obtained from the patients.