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CLINICAL DIFFERENCES IN MALE PATIENTS WITH PREDOMINANT STORAGE LOWER URINARY TRACT SYMPTOMS (LUTS) ACCORDING TO THE PRESENCE OF DETRUSOR OVERACTIVITY

Hypothesis / aims of study

Due to the different aetiology of Lower urinary tract symptoms (LUTS) in males, assessment is important to adequate treatment approach. The aim of this study was to assess differential characteristics in a population of males with predominant storage LUTS according to the urodynamic observation of detrusor overactivity (DO).

Study design, materials and methods

An epidemiological, cross-sectional, multicentre study was conducted in Spain. Men between 18 and 65 years old with storage LUTS, referred for Urodynamic investigation (UDS) to a Functional Urology and Urodynamic Unit, who do not comply with any exclusion criteria were recruited. Patients completed the BSAQ (Bladder control Self- Assessment Questionnaire), IPSS (International Prostate Symptom Score) and a 3 day Bladder Diary (3dBD). Urinary symptoms according to BSAQ, IPSS and 3dBD and urodynamic parameters (Maximum flow rate (Qmax), Post-void residual (PVR) calculated during uroflowmetry) and Abrams-Griffith index were compared between males with or without DO.

Statistical analysis was performed using Mann-Whitney U-test for continuous variables (Qmax, PVR), Fisher test for categorical binary variables [BSAQ, IPSS (mild, moderate and severe) and 3dBD] and Chi Square test (Pearson) for categorical multinomial variables (Abrams-Griffith index) to assess if there are statistical differences between groups.

Results

223 male patients were evaluable. Mean age was 55.4 years (71% ≥ 50 years). 77.6% of patients reported storage and voiding symptoms. 67.7% had symptoms of overactive bladder (OAB) and 73.5% DO.121 patients presented both OAB and DO.

Table I. Clinical comparison between storage LUTS males with or without DO (3dBD categorical variables)

	DO+ (N=164)	DO - (N=58)	P-value
3dBD variables	n	n	
Frequency >7	140	50	0.325
UUI (Urge urinary incontinence) ≥1	55	9	0.004
Urgency if PPIUS ≥3	121	30	<0.00001
Nocturia ≥1	138	53	0.004
There were clinical differences in urgency, UUI and nocturia			

Clinical comparison between males with/without DO according to the BSAQ (symptom presence if BSAQ item-score ≥2) showed that there were statistical differences for all symptoms (frequency, urgency, IUU and nocturia), p< 0.05 for all of them.

Table II: Comparison between storage LUTS males with or without DO according to IPSS categorization

IPSS categorization	DO+ (N= 164)	DO- (N=58)	P-value
	n	n	
Mild (IPSS score 0-7)	9	3	0.763
Moderate (IPSS score 8-19)	98	39	
Severe (IPSS score 20-35)	54	16	
No association is observed with respect to IPSS group severity			

Table III: Qmax & PVR comparison between males with storage LUTS regarding DO presence

	DO + (N=164)		DO - (N=58)		P-value
	n	Mean (SD)	n	Mean (SD)	
Qmax (ml/s)	160	13.48 (7.64)	56	12.53 (7.34)	0.416
PVR (ml)	158	53.59 (93.6)	56	48.79 (80.83)	0.501
There were no differences in Qmax and PVR					

Table IV. Comparison between men with storage LUTS with or without DO according to Abrams-Griffith index categorization

	DO+ (N=164)		DO- (N=58)		P-value
	n		n		
non-obstructed (< 20)	37		21		0.140
Undetermined (20-40)	51		13		
Obstructed (> 40)	56		20		
There were no differences regarding obstruction					

Interpretation of results

In our study we found some clinical differences in males with predominant storage LUTS with or without DO in 3dBD and BSAQ instruments, however there were no differences regarding IPSS . On the other hand, voiding urodynamic findings (Qmax ,PVR), when patients were categorized according to Abrams-Griffith index, did not correlate with the presence of DO.

Concluding message

Data from this study suggest that storage symptoms and lower urinary tract obstruction do not always associate with DO.

Disclosures

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