

COMPARISON OF URODYNAMIC PARAMETERS BETWEEN FEMALE PAINFUL BLADDER SYNDROME AND FEMALE SEVERE OVERACTIVE BLADDER

Hypothesis / aims of study

Patients with painful bladder syndrome (PBS) and severe overactive bladder (OAB) have such similar voiding and associated symptoms that clinical difficulties in diagnosis are a common problem. This study aimed to find out any differences in urodynamic parameters in the outpatient clinics between PBS and severe OAB.

Study design, materials and methods

Between June 2010 and June 2012, retrospectively were analyzed the consecutive 24 PBS female patients' and 28 severe OAB female patients' urodynamic parameters. PBS was defined as the International Continence Society terminology. Severe OAB was defined as having urgency, with or without urge incontinence, and maximal voided volume under 200ml by voiding diary.

Results

PBS group showed fewer episodes of urge incontinence than severe OAB group, with fewer patients showing detrusor overactivity (DOA) in the PBS group, as well ($p=0.019$, 0.037 , respectively). Volumes at first sense, normal desire, strong desire and maximal capacity during filling cystometry (MBC) were significantly smaller in PBS patients ($p<0.001$, $p<0.001$, $p=0.009$, $p<0.004$, respectively). Bladder compliance, maximal detrusor pressure, and other parameters of urodynamic, frequency volume chart, uroflowmetry showed no significant differences. Both PBS and severe OAB groups showed significant gap between maximal bladder capacity and maximal voided volume, however the degree of difference was greater in the severe OAB group.

Interpretation of results

PBS and severe OAB groups show different urodynamic parameters in terms of presence of DOA, MBC and the discrepancy between MBC and MVV is greater in severe OAB group.

Concluding message

Combined with other clinical findings, urodynamic studies might provide useful informations to confirm a diagnosis of PBS.

Key Words: Painful bladder syndrome, Overactive bladder, Urodynamic

Table 1. Comparison of clinical characteristics and urodynamic parameters between women with painful bladder syndrome and severe overactive bladder.

Parameter	Painful bladder syndrome (n=24)	Severe overactive bladder (n=28)	p-value
Age (yr)	54.0±12.5	57.1±12.4	0.379
Vaginal delivery	2.1±0.9	2.4±1.6	0.394
Body mass index (%)	22.5±3.3	24.1±3.4	0.131
Voiding diary			
Total number of voids (/day)	13.0±5.4	11.1±3.5	0.131
Maximal voided volume (ml)	155.0±67.6	154.2±40.3	0.965
Minimal voided volume (ml)	46.5±34.1	57.1±29.6	0.240
Urgency (%)	14 (58.3)	20 (71.4)	0.322
Urge incontinence (%)	2 (8.3)	10 (35.7)	0.019*
Uroflowmetry			
Qmax (ml/s)	13.0±6.7	13.1±6.6	0.969
voided volume (ml)	136.6±126.3	126.3±87.4	0.672
PVR (ml)	28.2±36.9	23.7±26.3	0.615
Urodynamic parameters			
Pdetmax in filling cystometry (cmH ₂ O)	13.5±13.6	14.8±8.3	0.668
Detrusor overactivity (%)	3 (13.0)	11 (39.3)	0.037*
Maximal bladder capacity (ml)	198.9±85.7	266.9±74.5	0.004*
compliance	24.1±13.5	27.8±7.2	0.256
First sense (ml)	88.4±41.9	170.0±64.4	0.000*
Normal desire (ml)	123.7±53.9	199.0±68.4	0.000*
Strong desire (ml)	163.2±63.0	223.2±60.1	0.000*
PdetQmax (cmH ₂ O)	18.4±12.4	21.9±9.1	0.252
Pdetmax (cmH ₂ O)	32.6±18.0	32.9±20.9	0.955
VLPP (cmH ₂ O)	40.5±2.1	53.4±32.4	0.181
MUCP (cmH ₂ O)	61.7±29.2	42.8±26.4	0.295

Qmax: maximal urine flow rate; PVR: postvoid residual urine volume; PdetQmax: detrusor pressure at maximal urine flow rate; Pdetmax: maximal detrusor pressure; VLPP: valsalva leak point pressure; MUCP: maximal urethral closure pressure

Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Institutional Review Board of the Korea University Hospital **Helsinki:** Yes **Informed Consent:** No