

BLADDER OUTLET OBSTRUCTION IN PATIENTS WITH INTERSTITIAL CYSTITIS/PAINFUL BLADDER SYNDROME

Hypothesis / aims of study

Interstitial cystitis/ painful bladder Syndrome (IC/PBS) is a diagnosis based on clinical symptoms including urinary frequency, urgency, and bladder pain, pressure and/or discomfort in the absence of any pathologic findings. Bladder outlet obstruction (BOO) is characterized by a maximum flow rate (Q_{max}) \leq 12 ml/sec and detrusor pressure at maximum flow ($P_{detQ_{max}}$) \geq 25 cm H₂O. The objective of this study is to evaluate the relationship between the severity of IC/PBS and objective data from urodynamic testing (UDT) and cystoscopy.

Study design, materials and methods

A retrospective chart review of IC symptoms, UDT results, and bladder biopsy findings was conducted for forty one patients with IC/PBS that underwent cystoscopy and bladder overdistention. Subjects were stratified into two groups based on urodynamics criteria for bladder outlet obstruction. Nine patients (21%) met the classification of BOO and were compared to the rest of the patients for O'leary-Sant Problem and Symptom Index (ICSI, ICPI), frequency per day, glomerulations on cystoscopy, mastocytes cell count (in mm²) on bladder biopsy, maximum cystometric capacity (MCC) and maximum urethral closure pressure (MUCP) on urodynamics using independent sample *t*-tests and Mann-Whitney tests.

Results

Participant demographics including age, body mass index, and duration of symptoms between the two groups were not significant between the two groups. ICSI (12.22 \pm 2.77 versus 9.44 \pm 4.05, $P = .03$), ICPI (13.00 \pm 2.06 versus 9.34 \pm 4.98; $P = .002$) were significantly higher in those with BOO compared to the unobstructive group. Glomerulations was significantly higher (3.33 \pm 1.00 versus 2.22 \pm 1.00; $P = .01$) while MCC was significantly lower (294.22 \pm 91.51 versus 398.28 \pm 147.72; $P = .02$) in the BOO group. However, frequency per day (15.67 \pm 9.30 versus 12.81 \pm 6.20; $P = .41$), MUCP (118.11 \pm 39.61 versus 119.41 \pm 46.70; $P = .94$) and mastocytes cell count per mm² on bladder biopsy (67.11 \pm 68.69 versus 53.20 \pm 50.48; $P = .51$) were not significantly different between the groups.

Interpretation of results

Patients with high scores on ICPI and ICSI questionnaires have a clinically significant correlation with findings of BOO on urodynamics in patients with IC/PBS.

Concluding message

Urodynamics findings in patients with IC/PBS correlate with symptom severity. Patients with severe IC/PBS appear to have significant functional BOO. Clinical findings on urodynamics might provide additional information to confirm the diagnosis of IC/PBS.

<i>Specify source of funding or grant</i>	None
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Drexel University
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes