

## 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 H<sub>2</sub>O. 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 mm<sup>2</sup>) 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 mm<sup>2</sup> 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.

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<b><i>What were the subjects in the study?</i></b>	<b>HUMAN</b>
<b><i>Was this study approved by an ethics committee?</i></b>	<b>Yes</b>
<b><i>Specify Name of Ethics Committee</i></b>	<b>Drexel University</b>
<b><i>Was the Declaration of Helsinki followed?</i></b>	<b>Yes</b>
<b><i>Was informed consent obtained from the patients?</i></b>	<b>Yes</b>