

CLINICAL AND URODYNAMIC DIFFERENCES AMONG WOMEN WITH OVERACTIVE BLADDER ACCORDING TO THE PRESENCE OF DETRUSOR OVERACTIVITY

Hypothesis / aims of study

A few researchers have studied whether clinical and urodynamic characteristics are different between overactive bladder (OAB) women with and without detrusor overactivity (DO) (sensory urgency) [1-3, however, only considered small populations of around 100 women with OAB. We tried to determine whether clinical and urodynamic differences exist between women with and without DO using large database of OAB patients.

Study design, materials and methods

We reviewed the medical records of 513 women who underwent urodynamic studies for OAB symptoms without neurogenic or anatomical conditions that affect micturition function. Clinical symptoms were evaluated using a 3-day frequency volume chart (FVC) including Urinary Sensation Scale and AUA-SI. All clinical and urodynamic findings were compared between women with and without DO.

Results

The patients' mean age was 58.9 years. DO was identified urodynamically in 167 (32.6%) women. Those with DO were older (62.9 vs 57.0 years, $p < 0.001$); however, no differences in AUA-SI, episodes of daytime voiding, and episodes of nocturia were observed between the groups. Functional bladder capacity was smaller in women with DO; however, this difference did not reach statistical significance. Women with DO had significantly more urgency incontinence symptoms than those without DO (55.1 vs 29.5%, $p < 0.001$). In urodynamic parameters, the volumes at first desire to void and strong desire to void and maximum cystometric capacity were significantly smaller, and detrusor pressure at the opening was significantly higher in women with DO compared to subjects without DO (26.2 vs 21.2 cmH₂O, $p = 0.004$) (Figure).

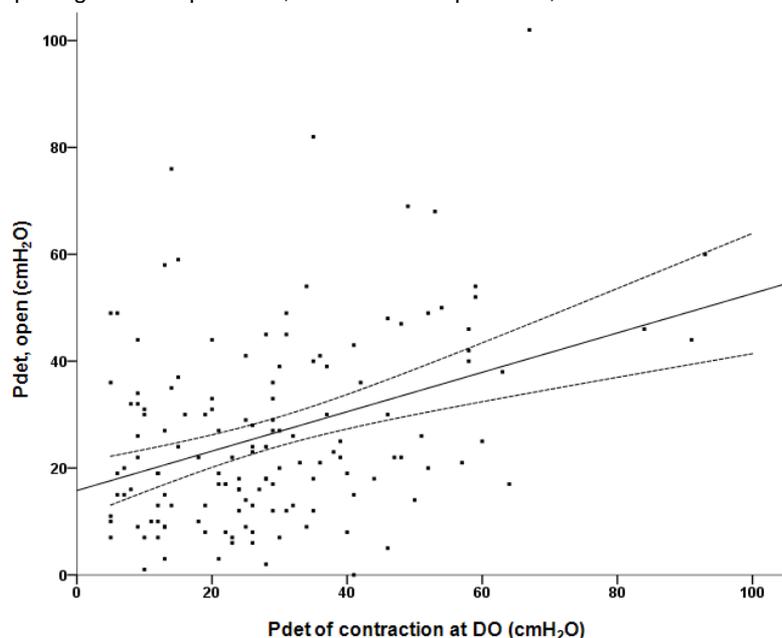
Interpretation of results

Our study adds more data to the body of scientific evidence that suggests some clinical and urodynamic findings are different between female OAB patients with and without DO.

Concluding message

Our findings suggest a more severe annoyance in bladder function when DO exists, although no differences were observed in symptom scores and 3-day FVC parameters among women with OAB symptoms according to the presence of DO.

Figure. Correlation between opening detrusor pressure and detrusor contraction strength when detrusor overactivity occurs in women with detrusor overactivity. A positive linear relationship is observed (Pearson coefficient $\gamma = 0.37$, $p < 0.001$). Pdet, open: opening detrusor pressure, Pdet: detrusor pressure, DO: detrusor overactivity.



References

1. Guralnick ML, Grimsby G, Liss M, et al. Int Urogynecol J 2010;21:325-9.
2. Haylen BT, Chetty N, Logan V, et al. Int Urogynecol J Pelvic Floor Dysfunct 2007;18:123-8.
3. Naoemova I, De Wachter S, Wuyts FL, et al. Int Urogynecol J Pelvic Floor Dysfunct 2008;19:213-6.

Disclosures

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