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ASSESSMENT OF IDIOPATHIC DETRUSOR UNDERACTIVITY IN WOMEN IN THE ABSENCE OF NEUROPATHY AND OBSTRUCTION

Hypothesis / aims of study

To explore the urodynamic features of idiopathic detrusor underactivity in women with nonneurological conditions and no obstruction who had mainly voiding lower urinary tract symptoms and to identify which parameters can better suggest a greater risk of having idiopathic detrusor underactivity.

Study design, materials and methods

We retrospectively analyzed the urodynamic findings in three patient groups. Group A included 66 women with nonneurological conditions and no obstruction who had mainly voiding lower urinary tract symptoms. Group B included 56 women suffering from neurogenic bladders. The control group C was formed by age matched women with unexplained recurrent urinary tract infections who, when seen by us, showed normal clinical and urodynamic findings. Nonparametric statistics were checked for significant differences among groups A, B and C. In groups A and C, we analyzed some urodynamic findings by logistic regression.

Results

The differences of urodynamic findings (Q_{max} , Q_{ave} , voided volume, post void residual, $P_{detat}Q_{max}$, Peak Pressure and Mean Pressure) were significant between groups A and C, and not significant between A and B. Group A showed a lower bladder volume at first sensation of bladder filling, first desire to void and strong desire to void compared with B, and no difference with C. The prevalence of low compliance bladder and detrusor overactivity in group A were lower than in group B, but higher than in group C. The combination of Q_{max} , time to maximum flow and mean pressure can better discriminate idiopathic detrusor underactivity.

Interpretation of results

The International Continence Society defines DUA as "a contraction of reduced strength and/or duration, resulting in prolonged bladder emptying and/or a failure to achieve complete bladder emptying within a normal time span." However, ICS don't identify the exact value of the strength and duration of contraction. What's more, the neuropathy in some patients may not be obvious. Therefore, sometimes it is difficult to discriminate idiopathic detrusor underactivity from neurogenic bladder. Our findings showed that bladder sensation during filling cystometry in patients suffering from idiopathic detrusor underactivity were always normal, which suggested that this disease only dose harm to detrusor contraction, rather than bladder sensation. By logistic regression, Q_{max} , time to maximum flow and mean pressure are at greater risks of having idiopathic detrusor underactivity and can better discriminate this disease.

Concluding message

Idiopathic detrusor underactivity only dose harm to detrusor contraction, rather than bladder sensation. The combination of Q_{max} , time to maximum flow and mean pressure can better differentiate idiopathic detrusor underactivity.

Disclosures

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