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BASED ON URODYNAMIC RESULTS, WHAT IS THE ROLE OF OBSTRUCTION OR OVERACTIVE DETRUSOR ON OBSTRUCTION AND OVERACTIVE DETRUSOR'S COMBINATION IN MALE PATIENTS.

Hypothesis / aims of study

The aim of this study was to establish the role of infravesical obstruction or overactive detrusor on infravesical obstruction and overactive detrusor's combination in male patients.

Study design, materials and methods

One hundred forty three men (median age 50, range 23-85 years) with lower urinary tract symptoms were divided into groups according to urodynamic results: group1 (n=35): infravesical obstruction, group2 (n=61): overactive detrusor and group3 (n=47), infravesical obstruction and overactive detrusor. To determine the effect of urge incontinence, group 3 was divided subgroups such as patients with urge incontinence (group 3a) or without incontinence (group 3b). IPSS, QOL, bladder diary and urodynamic study were completed in patients. Urinary infection, urological cancers or neurological disease were excluded. For statistical analysis, we used the Mann Whitney and chi-square tests. We regarded $P < 0.05$ as statistically significant

Results

IPSS and QOL were not statistically different between group 3 and group 1, 2.

Between group 3 and group 2 (The effect of obstruction)**:** Voided volume in bladder diary and pdetr@Qmx increased while Qmx during pressure flow study and Qmx of free flow decreased in group 3 compared to group 2, $P < 0.05$. There were no statistically difference among other parameters.

Between group 3 and group 1 (the effect of overactive detrusor): Pdetr@Qmx increased and strong desire to void decreased in group 3 compared to group 1, $P < 0.05$. There were no statistically difference among other parameters.

Between group 3a and group 3b (the effect of urge incontinence): Mean pressure of overactive detrusor (OADPr) increased in group 3a compared to group 3b (64±34 vs 41±28), $P < 0.05$.

Bladder diary (SD±)

	Voided volume	Max.voidu rine	Mean void nb
Group1	275±105	346±148	10.8±4.3
Group2	230±173	361±202	10.5±6.3
Group3	275±134	353±149	9.6±4.6

Urodynamic parameters(SD±)

	First Sens.	Strong desire	Pdetr@Qmx	Qmx	Qmx*	OADPr
Group1	114±65	361±117	56±22	6.7±5	14±6	-
Group2	116±90	255±152	64±73	11±6	21±9	54±42
Group3	111±76	276±154	74±35	7±2.7	13±5	48±32

*Qmx during free flow

Interpretation of results

1) IPSS and the parameters of bladder diary were not statistically different between group 3 and group 1, 2.
2) The effect of obstruction on group 3 to increase Pdetr@Qmx , decreased Qmx and free flow (Qmx)
3) The effect of overactive detrusor on group 3 to increase Pdetr@Qmx and decrease strong desire to void.
4) The effect of urge incontinence on group 3 to increase the pressure of overactive detrusor.

Concluding message

Overactive detrusor do not change the criteria of urodynamic obstruction but increase voding pressure during flow and decrease strong desire to void in obstruction and overactive detrusor. In group 3, although symptomps and parameters of bladder diary do not statistically changed by overactive detrusor, high voiding pressure may destroy detrusor muscle more than group 1 related to ischemic effect of high pressure.

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HUMAN SUBJECTS: This study did not need ethical approval because it is retrospective study but followed the Declaration of Helsinki Informed consent was obtained from the patients.