

## URODYNAMIC PARAMETERS OF PRESSURE-FLOW STUDY FAILURE MALE WITH LOWER URINARY TRACT SYMPTOMS

### Hypothesis / aims of study

Pressure-flow study (PFS) is an optional test for male with lower urinary tract symptoms (LUTS). But if patient failed to void during pressure flow study, we could not estimate the exact reason of bladder outlet obstruction of male with LUTS. We tried to define the urodynamic characteristics of PFS failure patients.

### Study design, materials and methods

We reviewed medical records and urodynamic graph and results of 75 male patients referred for evaluating lower urinary tract function due to their LUTS. We analyzed patient's age, I-PSS, prostate volume (PV), transition zone volume (TZV) and PSA from medical records and analyzed first desire, normal desire, strong desire, compliance, maximal capacity from urodynamic study. We defined PFS failure as voiding volume is below 50ml and bladder voiding efficacy (BVE) is below 10%.

### Results

Of 75 patients, 55 patients void successfully (55/75, 73.3%) and 20 patients could not void during PFS (20/75, 26.7%). The average age, I-PSS, PV, TZV and PSA of 55 PFS success patients were  $67.1 \pm 10.4$  yrs,  $21.3 \pm 6.9$ ,  $43.1 \pm 25.3$ cc,  $17.5 \pm 16.3$ cc,  $2.2 \pm 2.2$ ng/mL, respectively. The average age, I-PSS, PV, TZV and PSA of 20 PFS failure patients were  $70.6 \pm 10.6$  yrs ( $P=0.2$ ),  $15.9 \pm 10.7$  ( $P=0.07$ ),  $32.9 \pm 24.6$ cc ( $P=0.2$ ),  $13.3 \pm 14.2$ cc ( $P=0.4$ ),  $2.9 \pm 4.4$ ng/mL ( $P=0.4$ ), respectively. The average first desire, normal desire, strong desire, compliance and maximal capacity of 55 PFS success patients were  $183.2 \pm 110.4$ ml,  $257.8 \pm 124.9$ ml,  $349.3 \pm 151.6$ ml,  $87.3 \pm 91.3$ ,  $375.04 \pm 170.2$ ml, respectively. The average first desire, normal desire, strong desire, compliance and maximal capacity of 20 PFS failure patients were  $198.0 \pm 85.2$ ml ( $P=0.6$ ),  $325.4 \pm 116.3$ ml ( $P=0.05$ ),  $433.3 \pm 141.3$ ml ( $P=0.1$ ),  $99.1 \pm 125.6$  ( $P=0.8$ ),  $500.2 \pm 167.5$ ml ( $P=0.02$ ), respectively.

### Interpretation of results

PFS failure patients showed more delayed normal desire and enlarged maximal capacity than PFS success patient.

### Concluding message

The failure rate of pressure-flow study for male with LUTS is 26.7%. Although we still do not know the exact reason, PFS failure patients showed more delayed normal desire and enlarged maximal capacity than PFS success patients. The other major parameters were similar between two groups.

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| <b>Specify source of funding or grant</b>                             | <b>None</b>   |
| <b>Is this a clinical trial?</b>                                      | <b>Yes</b>  |
| <b>Is this study registered in a public clinical trials registry?</b> | <b>No</b>   |
| <b>What were the subjects in the study?</b>                           | <b>HUMAN</b>  |
| <b>Was this study approved by an ethics committee?</b>                | <b>Yes</b>  |
| <b>Specify Name of Ethics Committee</b>                               | <b>Ethical Committee of Soonchunhyang University Cheonan Hospital</b> |
| <b>Was the Declaration of Helsinki followed?</b>                      | <b>Yes</b>  |
| <b>Was informed consent obtained from the patients?</b>               | <b>Yes</b>  |