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±10.4 yrs, 21.3±6.9, 43.1±25.3cc, 17.5±16.3cc, 2.2±2.2ng/mL, respectively. The average age, I-PSS, PV, TZV and PSA of 20 PFS failure patients were 70.6±10.6yrs (P=0.2), 15.9±10.7 (P=0.07), 32.9±24.6cc (P=0.2), 13.3±14.2cc (P=0.4), 2.9±4.4ng/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±110.4ml, 257.8±124.9ml, 349.3±151.6ml, 87.3±91.3, 375.0±170.2ml, respectively. The average first desire, normal desire, strong desire, compliance and maximal capacity of 20 PFS failure patients were 198.0±85.2ml (P=0.6), 325.4±116.3ml (P=0.05), 433.3±141.3ml (P=0.1), 99.1±125.6 (P=0.8), 500.2±167.5ml (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.