

PATIENTS' CHARACTERISTICS AND URODYNAMIC PARAMETERS OF PRESSURE-FLOW STUDY FAILURE PATIENTS IN OUR INSTITUTION

Hypothesis / aims of study

Using pressure-flow study (PFS), we are able to gain information on many aspects of the bladder function. And PFS is the only way to know the difference between patients with low flow because of obstruction and those with poor bladder contractility. However, if patient failed to void during PFS, we could not estimate the exact reason of lower urinary tract symptoms. Therefore, we tried to clarify the patients' characteristics of PFS failure patients.

Study design, materials and methods

We reviewed medical records and urodynamic reports of 560 patients referred for evaluating lower urinary tract function. We analyzed patient's age, sex and type of urological disease from medical records and analyzed first desire, strong desire and maximal capacity from PFS. Some patients were tested to void into uroflowmeter and the maximum flow rate (Q_{max}), voided volume and post void residual urine volume (PVR) were measured. We defined PFS failure as voiding volume is below 50ml and bladder voiding efficacy is below 10%.

Results

Of 560 patients, 47 patients could not void during PFS. The male to female ratio was 1.76:1. The mean patient age was 70 (18–92) years. (Fig. 1) Fourteen patients (30.0%) were benign prostate hyperplasia, 13 patients (27.7%) were pelvic organ prolapse (pre and post operative evaluation), 12 (25.5%) were neurogenic bladder, 5 (10.6%) were prostate cancer (pre operative evaluation) and 3 (6.4%) were others.

No significant differences were observed in the average first desire, strong desire and maximal capacity between failure and successful patients. In addition, there were no significant differences in the occurrence of detrusor overactivity between failure and successful patients (9.8% vs 12.8%). Forty-two patients were tested uroflowmeter, 34 patients (80.9%) were able to voiding. The average Q_{max} , voided volume and PVR were 12.1 ± 1.6 ml/sec, 149.8 ± 25.7 , 107.5 ± 24.2 ml, respectively. There is no patients with PFS successful patients who could not voiding. Patients who could not void both PFS and uroflowmeter, maximum detrusor pressure during try to void were 31.3 ± 8.8 cmH₂O.

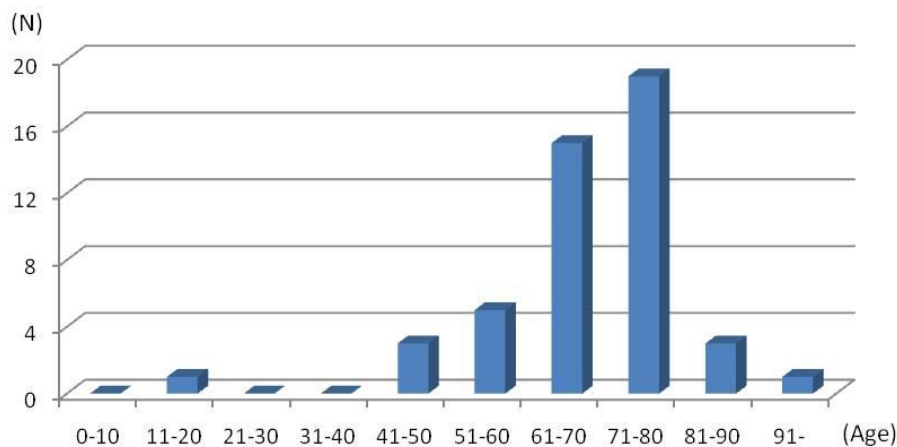


Fig.1 Age distribution of pressure-flow study failure patients

Interpretation of results

The failure rate of PFS in our institute is 8.4%. Although we still do not know the exact reason, PFS failure patients showed lower Q_{max} and higher PVR than PFS successful patients.

Concluding message

Patient who could not void in uroflowmeter might be a risk factor to be PFS failure. The other major parameters were similar between two groups. These findings might be important in explaining and understanding the cause of PFS failure.

Specify source of funding or grant

none

Is this a clinical trial?

No

What were the subjects in the study?

NONE