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# THE IMPACTS OF PELVIC FLOOR DYSFUNCTION WITH STRESS URINARY INCONTINENCE ON BLADDER FUNCTION

### Hypothesis / aims of study

Pelvic organ prolapse (POP) and stress urinary incontinence (SUI) are induced by pelvic floor dysfunction (PFD) and often recognized in common. The difference of bladder dysfunction between PFD inducing only POP and POP with SUI is unclear. In the present study, we investigated impact of PFD inducing POP with SUI on bladder function using urodynamics study (UDS).

### Study design, materials and methods

One hundred forty four patients with POP, more than POP grade 2, were enrolled in this study. The International Prostate Symptom Score (IPSS) was used for evaluation of lower urinary tract symptoms. All patients underwent UDS and cough stress test from January 2007 to December 2016. UDS included pressure flow study (PFS), uroflowmetry for a maximum flow rate (Qmax) and mean flow rate, and post-void residuals (PVR). Projected isovolumetric pressure (PIP1) for evaluation of bladder contractility was calculated using the following formula: Pdet at Qmax + Qmax. All procedures were performed with prolapse reduction using vaginal gauze packing or a ring pessary. Statistical analyses were performed using Mann-Whitney U test and chi-squared test. P<0.05 was considered statistically significant.

### Results

After considering results of cough stress test, all patients were divided into two groups; 71 patients in SUI+ group (positive stress test), 73 patients in SUI- group (negative stress test). There were no significant differences of backgrounds and IPSS score. Differences of urodynamics parameters except existence of DO weren't recognized between two groups. (Table)

### Interpretation of results

The present study demonstrated that PFD inducing POP with SUI or not couldn't affect detrusor contractility and LUTs. Based on UDS, DO in patients with POP was mostly occurred by stimulation to the urethra

### Concluding message

PFD including POP with SUI occasionally induced DO on UDS, however there were no differences about other urodynamics parameters with POP without SUI. The mechanism of urgency in POP is unclear yet.

	SUI+ (n=71)	SUI- (n=73)	P-value
	Mean(SD)	Mean(SD)	
Volume at first sensation	154.1(72.3)	170.9(66.9)	NS
Maximal capacity bladder	334.3(93.5)	343.1(84.3)	NS
Detrusor Overactivity	28	0	P<0.05
Maximal flow rate	43.1(99.5)	23.6(10.4)	NS
Mean flow rate	12.2(7.1)	11.4(6.2)	NS
Post-void residuals	33.7(62.6)	32.3(42.2)	NS
Pdet at Qmax (or Maximal Pdet)	20.2(14.2)	16.8(13.2)	NS
PIP1	35.8(18.3)	35.3(17.3)	NS

### Disclosures

**Funding:** nothing **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Institutional Ethical Board for Epidemiological Studies at University of Yamanashi **Helsinki:** Yes **Informed Consent:** Yes