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HYPOTHESIS / AIMS OF STUDY

To evaluate the correlation between the self-reported urinary symptoms using validated Pelvic floor distress inventory (PFDI) and urodynamic findings in women presented to a tertiary urogynaecology unit.

STUDY DESIGN, MATERIALS AND METHODS:

A prospective study was conducted in a tertiary urogynecology center which included all women with urinary symptoms who referred to us from April 2015 to March 2017. All women underwent a medical consultation using a standard consultation form and completed a validated Pelvic floor distress inventory (PFDI) questionnaires in Chinese [1] and urodynamic study (UDS) were arranged for them.

Item 19 of PFDI reports urge incontinence symptoms while item 20-23 report stress incontinence symptoms. Women with pelvic organ prolapse were excluded. Urodynamic study were performed using Laborie Urodynamics, Aquarius system, (Laborie, Canada) in a standard protocol. At the end of filling, women were seated for a pressure flow study and post-void residual measurement. A urodynamic diagnosis of urodynamic stress incontinence (USI), detrusor overactivity (DO) and mixed urinary incontinence was made according to the International Continence Society definition.

A correlation analysis was carried out between individual items on the PFDI questionnaire and UDS findings. Statistical analysis using the Kappa Measure of Agreement and chi-square test were performed with SPSS 22.0 software (SPSS, Inc, Chicago, IL). Ethics approval was obtained.

RESULTS:

Total of 280 women were approached, 37 refused or being unable to answer the questionnaires, 102 were excluded due to co-existing pelvic organ prolapse, and subsequently 18 women did not turn up for urodynamic study, leaving 123 women who were included for analysis. The mean age of the women was 58.2 years old (SD 7.9) with median

women was 58.2 years old (SD 7.9) with median parity of 4 (2-4), and mean BMI of 24.9 kg/m² (SD:4.1). One hundred and eight women (87.8%) were post-menopausal and 106/123 (86.2%) were sexually inactive.

All of them reported with urinary symptoms with 40/123 (32.5%) of them reported stress incontinence, 15/123 (12.2%) with urge incontinence and 31/123 (25.2%) had mixed urinary incontinence and 37/123 (30.1%) were having other voiding problems.

From urodynamic study, 51/123 (41.5%) were diagnosed with USI and 5/123 (4.0%) were with DO. 4/123 (3.3%) of them had both stress incontinence and detrusor overactivity and 63/123 (51.2%) had no abnormality detected.

The Kappa Measure of Agreement value was 0.45 (p<0.01) between reported symptoms of stress incontinence and USI, while it was 0.20 (p=0.1) between symptoms of urge incontinence and DO.

INTERPRETATION OF RESULTS:

Majority of women presented with urinary symptoms reported symptoms of stress incontinence. The SI symptoms had high sensitivity (92.6%) and positive predictive value (69.4%) to the diagnosis of USI. However, symptom of urge incontinence does not correlate significantly with urodynamic diagnosis of DO.

CONCLUDING MESSAGE:

The validated PFDI correlates significantly with urodynamic finding of stress incontinence. However, urodynamic study is still necessary to exclude detrusor overactivity for women who consider surgery.

DISCLOSURE: None.

1. [Chinese validation of Pelvic Floor Distress Inventory and Pelvic Floor Impact Questionnaire.](#) Chan SS, Cheung RY, Yiu AK, Li JC, Lai BP, Choy KW, Chung TK. Int Urogynecol J. 2011;22(10):1305-12.

Table 1. Sensitivity and specificity of PFDI for predicting urodynamic finding

Symptoms from PFDI	Urodynamic finding	Sensitivity %	Specificity %	Positive predictive value %	Kappa Measure of agreement	P value
Stress incontinence	Urodynamic stress incontinence	92.6	49	69.4	0.45	<0.01
Urge incontinence	Detrusor overactivity	75	54.5	13.0	0.20	0.1

Statistical analysis using chi-square test and Kappa Measure of Agreement.