

## URODYNAMIC INCONTINENCE CORRELATES WITH SEXUAL DYSFUNCTION IN FEMALE PATIENTS WITH VOIDING DYSFUNCTION

**Hypothesis / aims of study:** Patients with urinary incontinence (UI) often complain of concomitant sexual dysfunction, as indicated by the sexual functions scores of the Female Sexual Function Index (FSFI).<sup>1,2</sup> However, no previous studies have evaluated the relationship between urodynamic (UDS) diagnosis and FSFI. The aim of this study is to evaluate the relationship between the FSFI domains and various UDS parameters.

**Study design, materials and methods:** We retrospectively reviewed a database of 400 patients who presented for an initial evaluation with overactive bladder (OAB) symptoms or stress incontinence (SUI) from the period June 2003 – July 2005. All patients who had completed FSFI and subsequent UDS were included. The validated questionnaire was given to the patient prior the first clinic visit and was answered without the intervention of any health care practitioner. All patients were clinically evaluated by the same clinician. Multichannel UDS was performed on patients according to the ICS criteria. We calculated the FSFI scores for all 6 domains and correlated them with UDS diagnosis sub-groups: Maximum Cystometric Capacity (MCC), Detrusor Overactivity (DO), UI (Leak), Stress UI on UDS (U-SUI), Detrusor Pressure at Maximum Flow (DetQMax), and Max Flow. Kruskal-Wallis test was used for statistical analysis.

**Results:** A total of 291 female patients with a mean age of 53 (28-86) formed our database. Table 1 and 2 illustrates the FSFI domain scores among UDS diagnosis.

**Table 1. FSFI Median Scores**

UDS Parameter	N =	Desire (1.2-6)	Arousal (0-6)	Lubrication (0-6)	Orgasm (0-6)	Satisfaction (0.8-6)	Pain (0-6)	Total (2-36)
DetQMax >20cmH <sub>2</sub> O	109	3	2.7	2.7	2.8	2.8	2.4	18.3
DetQMax <20cmH <sub>2</sub> O	97	3	2.7	3	2.4	3.2	2	17.3
Max Flow >12ml/sec	170	3	3	2.4	<b>2.8*</b>	3.2	2.4	18.2
Max Flow <12ml/sec	81	3.6	1.2	3	<b>2.4*</b>	2.8	2.8	17.8
MCC >200 ml	253	3.6	2.7	3.5	2.8	3.2	2.4	18.3
MCC <200 ml	38	3	2.3	2.3+/-2	2.8	2.6	3	16.5

\* **Significant Difference (pairwise comparison) K-W test; p<0.05 is bolded**

**Table 2. FSFI Median Scores**

UDS Parameters	N =	Desire (1.2-6)	Arousal (0-6)	Lubrication (0-6)	Orgasm (0-6)	Satisfaction (0.8-6)	Pain (0-6)	Total (2-36)
Leak +	106	2.7	2.4	2.7	<b>2.4*</b>	<b>2.4*</b>	1.8	<b>16*</b>
SUI +	89	2.4	2.4	2.7	2.4	2.8	2.8	16.5
DO+	49	3.6	2.4	3	2.8	2.4	1.6	17.7
Leak - / DO -	166	3.6	2.7	3	<b>2.8*</b>	<b>3.6*</b>	2.4	<b>19.5*</b>

\* **Significant Difference (pairwise comparison) K-W test; p<0.05 is bolded**

**Interpretation of results:** The FSFI total score was 16.4 (among all patients). Patients who leaked on UDS had lower FSFI total score (2-36) when compared with those who did not leak. Moreover, the sexual satisfaction and orgasm domains showed lower score in patients who had UI on UDS. Although patients with urodynamic bladder outlet obstruction criteria<sup>3</sup> (Blaiwas et al.) showed a significant difference (2.4) on the orgasm domain median score when compared with those non-obstructed, this was less than 3 (range: 0-6).

**Concluding message:** Urinary leakage (associated with Valsalva or DO) is the single most predictive urodynamic parameter of an adverse sexual dysfunction score in female patients. Patients who do not reveal DO on urodynamics nor had leakage on urodynamics had the best Female Sexual Function Scores. Further studies evaluating the correlations between female sexual function and urodynamic findings in women with voiding dysfunction might provide important clinical and investigative data.

### References:

- Rosen RC, Brown C *et al.*, *J. Sex Marital Ther.* 2000(26):191–208.
- Salonia A, Zanni G *et al.*, *Eur Urol* 2004;45(5):642-8.
- Groutz A, Blaiwas JC. *Neurourol Urodyn.* 2000;19(5):553-64

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**HUMAN SUBJECTS:** This study did not need ethical approval because Is a Clinical Retrospective Review of patient's data. but followed the Declaration of Helsinki Informed consent was not obtained from the patients.