

## IS IT POSSIBLE TO PREDICT URODYNAMIC STRESS URINARY INCONTINENCE IN WOMEN WITH MINIMAL DIAGNOSTIC EVALUATION?

### Hypothesis / aims of study

To determine whether it is possible to predict urodynamic stress urinary incontinence (uSUI) in women with minimal diagnostic evaluation.

### Study design, materials and methods

Medical records of 2643 female incontinent patients were reviewed and 301 women were eligible for this study. The positive predictive values (PPV's), sensitivity, specificity, and negative predictive values (NPV's) for uSUI and uSUI with or without detrusor overactivity (DO), and DO patients of pure SUI symptom (Group 1), combination of pure SUI symptom and positive provocative stress test (+PST) (Group 2) and combination of pure SUI symptom, +PST and absence of overactive bladder (OAB) symptoms (Group 3) were calculated for each group.

### Results

Mean age was 51.03 years (22-88). PPV's, sensitivity, and specificity values for uSUI with or without detrusor overactivity of Group 3 were 100, 7.4, and 100%, while these values for pure uSUI were 93.3, 9.3, and 99.3% respectively. Interestingly, none of the patients in group 2 and 3 had DO.

### Interpretation of results

It seems that it is possible to predict urodynamic stress urinary incontinence in women with minimal diagnostic evaluation.

### Concluding message

Our results showed that it was possible to predict uSUI with high accuracy rates by using minimal diagnostic evaluation in a group of female patients with pure stress incontinence symptoms and +PST while it was also possible to eliminate DO accurately in this group of patients.

Table 1: Patient distribution of the groups created according to the use of different diagnostic criteria

		n (%)
Group 1	Pure SUI Sx	<b>60 (19.9)</b>
Group 2	Pure SUI Sx and +PST	<b>42 (13.9)</b>
Group 3	Pure SUI Sx, +PST, absence of OAB Sx	<b>15 (4.9)</b>

Table 2: Patient characteristics in the whole population of the study

<b>Patient characteristics</b>	
No. of patients	<b>301</b>
Age Mean (range)	<b>51.03 (22-88)</b>
Type of incontinence	
Stress	<b>60 (19.9%)</b>
Urge	<b>42 (13.9%)</b>
Stress+Urge	<b>193 (64.1%)</b>
Continuous	<b>2 (0.7%)</b>
Other (Any combination)	<b>4 (1.4%)</b>
OAB symptoms	
None	<b>29 (9.6%)</b>
Urgency	<b>29 (9.6%)</b>
Frequency	<b>14 (4.7%)</b>
Nocturia	<b>12 (3.9%)</b>
Mixed	<b>217 (72.2%)</b>
Pelvic organ prolapse (POP)	
None-Mild	<b>153 (50.8%)</b>
Moderate- Severe	<b>148 (49.2%)</b>
• Anterior	<b>66 (21.9%)</b>
• Posterior	<b>28 (9.3%)</b>
• Apical	<b>2 (0.7%)</b>
• Mixed	<b>52 (17.3%)</b>
Positive stress test	
No	<b>113 (37.5%)</b>
Yes	<b>188 (62.5%)</b>
Urodynamic diagnosis	
Normal	<b>49 (16.3%)</b>
uSUI	<b>150(49.8%)</b>
DO	<b>50 (16.6%)</b>
Mixed (SUI + DO)	<b>52(17.3%)</b>
Qmax Mean (range)	<b>26.74 (3-51)</b>
Post voiding residual Mean (range)	<b>4.3 (0-90)</b>

Disclosures

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** It was a retrospective data based study. **Helsinki:** Yes  
**Informed Consent:** No