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DOES ADDITION OF THE ASSESSMENT OF POST-VOID RESIDUAL VOLUME AND STRESS TEST TO THE INITIAL STANDARD EVALUATION IMPROVE THE RELIABILITY OF PURE SYMPTOMS OF STRESS URINARY INCONTINENCE FOR PREDICTING PURE URODYNAMIC STRESS INCONTINENCE?

Hypothesis / aims of study

While urodynamics are routinely recommended in women with a clinical suspicion of detrusor overactivity (DO) or underactivity (DU) before surgery for SUI, its preoperative significance in case of women with a “clinically-defined pure SUI symptom” has been a debated issue in recent years. The NICE guideline (2006) states that preoperative multichannel cystometry is not routinely recommended in women with a clearly defined clinical diagnosis of pure SUI. Moreover, AUA guideline (2010) excludes preoperative urodynamics from standard diagnostic evaluation in otherwise healthy women with SUI who have elected surgical therapy. We evaluated the reliability of pure symptoms of SUI for predicting pure urodynamic SUI (USUI) and estimated the changes of reliability when the assessment of post-void residual (PVR) and stress test, designated as initial standard evaluation in the NICE and AUA guidelines, are involved for clinical diagnosis.

Study design, materials and methods

We retrospectively reviewed the records of 1,019 women aged 30-80 years who had undergone urodynamic study for incontinence without known or suspected neurological or anatomical conditions. In the first analysis, the criteria of a “clinically-defined pure SUI symptom” were defined as absence of clinical suspicion of overactive bladder symptom and voiding difficulties based on history taking, physical examination, AUA symptom score regarding obstructive symptom, and 3-day frequency-volume chart. And then, we added assessment of PVR and stress test to determinants for pure SUI symptom in the second analysis. The sensitivity, specificity, positive and negative predictive value of the pure symptoms of SUI for predicting pure USUI were estimated in both analyses.

Results

Of a total of 1,019 women, 211 (20.7%) could be classified as having “clinically-defined pure SUI symptom” in the first analysis. Of these, only 167 (79.1%) had pure USUI and 33 (15.7%) had DO. Eight (3.8%) had DU/bladder outlet obstruction in conjunction with USUI/DO. The sensitivity and specificity of pure symptoms of SUI for pure USUI were 28.6% and 89.9%. When the assessment of PVR and stress test were involved for clinical diagnosis, predictive accuracy increased only by 3.6%.

Interpretation of results

As many as 20.9% of women with a clinically-defined pure SUI symptom have final diagnoses other than pure USUI. Additional use of the assessment of PVR and stress test for clinical diagnosis increases the accuracy only minimally.

Concluding message

Urodynamic study should be performed in women with a “clinically-defined pure SUI symptom” before anti-incontinence surgery even though the assessment of PVR and stress test are involved for clinical diagnosis.

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Was this study approved by an ethics committee?	**Yes**
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Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**No**