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PURE STRESS URINARY INCONTINENCE: IS A STRESS TEST NEEDED BEFORE SURGERY?

Hypothesis / aims of study

Urodynamic evaluation represents a useful diagnostic tool for the assessment and management of incontinent women, especially before undergoing a surgical procedure. However, the International Consultation of Incontinence has recently reported that urodynamic investigations might be unnecessary if "stress urinary incontinence" (SUI) is the only symptom complained by women. The aim of our study was to assess the value of performing a stress test in women with pure SUI before undergoing a continence procedure.

Study design, materials and methods

Women with lower urinary tract symptoms referred to our urodynamic clinic were retrospectively studied. The women's symptoms were determined from the symptom section of the King's Health Questionnaire that each woman completed prior the urodynamic testing. The urodynamic reports were reviewed by a second blinded observer. Women who had symptoms of increased daytime frequency, nocturia, urgency, urge urinary incontinence were excluded, thus only women who had pure SUI were included in the study. All terms and definitions are in accordance with the International Continence Society (ICS)[1]. Urodynamic stress incontinence was classified as mild, moderate and severe if leakage of urine occurred following one, three or five coughs respectively[2]. The frequency of the different urodynamic diagnoses was calculated.

Results

A total of 3428 women aged 24 to 81 years were studied. The frequency of urinary symptoms is showed in figure 1.

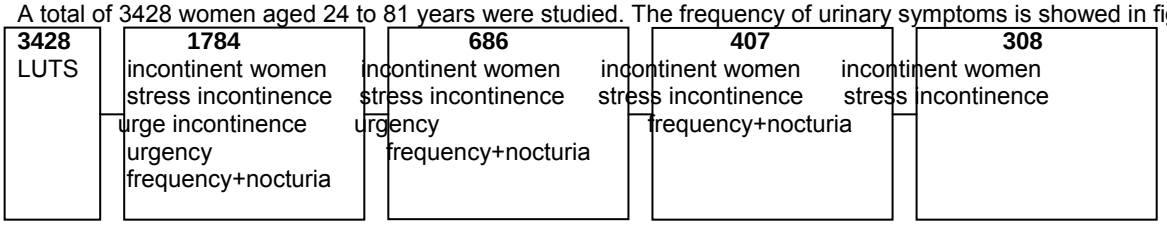

Figure 1. Frequency of urinary symptoms in the study population.

Only 308 women (8.9%) could be classified as having pure SUI. Of these, 241 women (78.2%) had urodynamic stress incontinence, 23 women (7.5%) had detrusor overactivity, 9 women (2.9%) had urodynamic stress incontinence and detrusor overactivity while 35 women (11.4%) had a inconclusive urodynamics. 47.1% of women (145/308) had mild urodynamic stress incontinence, 19.8% of women (61/308) had moderate urodynamic stress incontinence whereas 12.3% of women (38/308) suffer from severe urodynamic stress incontinence. 24 (7.8%) of the women had post void residual (PVR) greater than 100 ml. The uroflowmetry parameters of women with high PVR are showed in table 1.

	Mean	**range**
Voided volume (ml)	204	130 - 642
Maximum flow rate (ml/sec)	14.8	3 - 30
Post void residual (ml)	224	100 - 611

Table 1. Free flow rate parameters of women with post void residual ≥ 100 ml.

Interpretation of results

Urodynamic investigations might be considered unnecessary prior continence surgery only for those women who complain pure SUI. A simple and accurate evaluation of symptoms using self-completed, standardized and validated questionnaire represents an adequate diagnostic and screening tool in the assessment and management of incontinent women. The evaluation of free flow rate and measurement of post void residual is mandatory since up to 8% of women with pure SUI will have voiding difficulties preoperatively. On the light of our study a stress test seems unnecessary since more than 80% of women with pure SUI will have a diagnosis of urodynamic stress incontinence. KHQ seems to be a reliable and useful diagnostic tool for the symptom assessment of incontinent women.

Concluding message

The use of a symptom questionnaire alone seems to screen only a small number of women suitable for surgery. Almost 50% of women complaining of SUI would have a mild urodynamic stress incontinence and might benefit from physiotherapy. Excluding voiding problems is still mandatory.

References

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2. Versi, E., Cardozo, L.D. Perineal pad weighing versus videographic analysis in genuine stress incontinence. Br J Obstet Gynaecol, **93**(4):364, 1986

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