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SIGNIFICANCE OF PAD TEST LOSS FOR THE EVALUATION OF WOMEN WITH URINARY INCONTINENCE

Hypothesis / aims of study

The aim of this study was to determine whether objective incontinence severity measured by pad test correlated with urethral parameters, was differentiated by incontinence types, and influenced the clinical outcome.

Study design, materials and methods

Two hundred seventy-four female patients who had undergone tension-free vaginal tape procedure between March 1999 and May 2003 were retrospectively reviewed. The one-hour pad test was carried out as recommended by the International Continence Society, with some modification. Mean patient age was 55.1 years (range 28 to 80). Of all 201 women (73.3%) complained of stress urinary incontinence and 73 (26.7%) additional symptoms of urge incontinence. Cure of incontinence after the procedure was defined as the absence of a subjective complaint of leakage and the absence of objective leakage on stress testing, and all other cases were considered failures.

Results

In linear regression analysis, Valsalva leak point pressure (VLPP) was the only explanatory variable influencing objective incontinence severity. The urine leakage was significant higher in mixed urinary incontinence group than in stress urinary incontinence group (39.7 ± 7.5g versus 30.3 ±2.8g, P <0.05). In total patients, the failure group had more severe preoperative objective severity than the cure group (53.2 ±16.6 versus 32.0 ± 3.0, P <0.05). In subgroup analysis, a similar result was found in the stress urinary incontinence group (87.1 ± 8.2 versus 29.8 ± 2.8, P <0.05) but not in the mixed urinary incontinence group.

Interpretation of results

The perception of continence status and reporting of leakage episodes are modulated by differences in personality characteristics. To standardize the assessment, the one-hour pad test was proposed and the method has become widespread for assessing the degree of incontinence in women, which is not easy to obtain either from patient interview or from clinical examination [1]. Test-retest correlations of the one-hour pad test are high, suggesting that the method can be applied as an index of severity of urinary incontinence in women [2].
In the present study, instead of retrograde filling of the bladder, we performed serial bladder scans until bladder volume reached the functional bladder capacity according to the frequency-volume chart. Our preliminary study revealed that the amount of urine leakage obtained with the above method had a good test-retest reliability. Furthermore, although the validity of the long-term test (12 to 48 hours) as a measure of the symptom of urinary incontinence is obvious [3], we have learned from our patients that clinically patients who are expected to have more episodes of incontinence compensate by voiding more frequently or drinking less, which may undermine the validity of the pad test. Thus, we measured the amount of urine leak by one-hour pad test.

Concluding message

Our findings suggest that the amount of urine leakage measured during pad test may be associated with the clinical outcome after the anti-incontinence surgery.

References

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