

EVALUATING THE RESULTS OF STRESS URINARY INCONTINENCE SURGERY WITH OBJECTIVE AND SUBJECTIVE OUTCOME MEASURES.

Hypothesis / aims of study

Reporting the results of stress urinary incontinence (SUI) surgery is somewhat controversial. The cure or improvement rate can be defined following different objective or subjective outcome measures (OM). There are also some postoperative complications such as voiding dysfunction or “de novo” urge urinary incontinence (UII) that can modify surgery results. Moreover, when UII coexists before surgery, the persistence of this symptom after surgery can mask results. Patient’s expectations and goals with surgery may play also a role. The aim of this study was to assess the results of SUI surgery using different objective and subjective outcome measures in women with pure stress urinary incontinence and mixed urinary incontinence (MUI). We also evaluated the degree of agreement between the different outcome measures in both groups.

Study design, materials and methods

This was a multicentric prospective cohort study including women operated on for SUI with or without UII. Two groups were established for assessing the results of SUI surgery, the first including women with pure SUI, and the other including women with MUI with a predominating stress component. Six months after surgery, the results were reported using objective and subjective outcome measures. We used a standardized cough stress test as an objective OM, and different self-administered questionnaires as subjective OM. Symptoms of stress incontinence and urge incontinence were evaluated separately with the corresponding questions of the validated Spanish version of the “Epidemiology of Prolapse and Incontinence Questionnaire” (EPIQ) (1). Following this questionnaire, SUI was considered cured when the women answered “no” to the specific question of SUI. This questionnaire also allowed us to evaluate the resolution of the urge component in patients with mixed urinary incontinence, and the appearance of “de novo” UII in patients with pure stress symptoms before surgery. UII was considered cured when the women who previously reported this symptom answered “no” to the specific question of UII in the EPIQ questionnaire. We used the validated Spanish version of the “International Consultation on Incontinence Questionnaire-Urinary Incontinence Short Form” (ICIQ-UI SF) (2) for global incontinence assessment. Finally, the “Patient Global Impression of Improvement” (PGI-I) questionnaire (3) allowed us to assess patient perceptions of surgery results. Statistical analyses (Kappa test) were used to measure the degree of agreement between the different outcome measures.

Results

We recruited 308 women operated on for SUI in 37 pelvic floor specialized units in our country. From the total, 277 (89.9%) attended the follow up visit and completed the self-administered questionnaires forming the study group. Mean age was 56.1 (Standard deviation: 11.2; range: 32-80) and mean BMI was 27.8 (Standard deviation:4.7; range:18.4-59.1). Two groups were established, the first with 116 women who had pure SUI and the other with 161 women with MUI before surgery. Incontinence surgery was associated with pelvic organ prolapse surgery in 95 women (42 in the pure SUI group, and 53 in the MUI group). A transobturator suburethral sling procedure was used in the majority of women in both the pure SUI group (73.2%) and the MUI group (82.1%). The second incontinence procedure in frequency was a single-incision sling (23.4% in pure SUI group, and 14.9% in the MUI group). The complication rate was low, urinary infection being the most frequent (7.9%) followed by urinary retention (3.9%). No patient required urethral catheterization for more than one month after surgery. The assessment of surgery results with objective and subjective outcome measures is shown in table 1. The cure rate of the stress urinary component following objective and subjective OM was high in both groups. In the MUI group, 60.8 % of women had a resolution of the urge component after surgery. In the group of pure SUI, 13 (11.2%) women referred “de novo” UII. Global assessment with ICIQ-UI SF and PGI-I indicated lower cure rates in both groups.

The degree of agreement between the different outcome measures was evaluated for global results (ICIQ-UI SF vs. stress and urge incontinence symptoms referred in EPIQ) and for the stress component (cough stress test vs. stress incontinence symptom referred in EPIQ). The kappa degree of agreement for subjective outcomes measuring global results was good for patients with pure SUI ($k=0.73$) and very good for women with mixed symptoms ($K=0.80$). Agreement was moderate ($k=0.54$) when we compared objective and subjective outcomes measures for women with pure SUI and fair ($k=0.37$) in women with MUI.

Table 1 Evaluation of surgery results with objective and subjective outcome measures in women with pure SUI and women with MUI.

Subjective and objective outcome measures		Pure (n=116)	SUI MUI (n=161)
SUI objective cure rate	n,%	108 (93.1)	146 (90.7)
SUI subjective cure rate (EPIQ)	n,%	100 (86.2)	140 (87.0)
Resolution of urge component (EPIQ)	n,%	-	98 (60.8)
Appearance of “de novo” IUU (EPIQ)	n,%	13 (11.2)	-
Global UI subjective cure rate (ICIQ-UI SF)			
ICIQ = 0	n,%	81 (69.8)	78 (48.4)
ICIQ < 5	n,%	97 (83.6)	105 (65.2)

Patient Global Impression of Improvement "Very much better" or "much better"	n,%	102 (87.9)	139 (86.3)
Global UI subjective cure rate (EPIQ)	n,%	91 (78.4)	90 (55.9)

Interpretation of results

Both objective and subjective cure rates are high for women with pure SUI and MUI after stress urinary incontinence surgery in our country. A considerable percentage of women with mixed symptoms reported resolution of the urge incontinence component after surgery. The degree of agreement between different outcome measures varies widely from a very good agreement between subjective measures in women with pure SUI to a fair agreement between objective and subjective OM in women with MUI.

Concluding message

There are different outcome measures to assess the results of SUI surgery but none of them alone is sufficient. Objective measures allow us to verify stress continence, whereas symptom questionnaires help us to evaluate not only the resolution of the stress component and the urge component but also the development of complications after surgery. Global assessment with the ICIQ-UI SF questionnaire is also important. This instrument allows us to know the severity and the cure and improvement rate of UI after surgery.

References

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Disclosures

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