

## EVALUATION OF TWO TENSION FREE VAGINAL TAPES WITH URODYNAMICS AND ICIQ-UI-SF QUESTIONNAIRE

### Hypothesis / aims of study

The objective of the present study was to compare the results, using conventional urodynamic study as an objective outcome measure and the ICIQ-UI SF questionnaire as a patient's perspective outcome measure, of two surgical procedures for stress urinary incontinence using repropubic ( RP) or transobturator ( TO) "tension-free vaginal tape".

### Study design, materials and methods

A prospective study of 120 women with a urodynamic diagnosis of Stress Urinary Incontinence (SUI) who received treatment in one urogynaecological unit for their incontinence with tension free vaginal tape: by retro pubic tract (RP) or by transobturator tract (TO), patients with previous surgery for SUI or prolapse were excluded. All the patients underwent urogynaecological history, a physical examination, the ICIQ-UI SF questionnaire and urodynamic study. In 65% of the patients a prolapse surgery was added, in all cases the treatment being carried out by the same medical team. The treatment outcome was evaluated 6-12 months later with urodynamic study and with the ICIQ-UI SF. Patients were divided into 3 groups, "cured SUI", "improved SUI" or "failed treatment of SUI", according to the observed stress leakage during postoperative filling cystometry (cured = "no observed leakage on stress test during filling cystometry at maximum capacity", improved= less leakage, failed = no changes) the evaluation of the leakage during cystometry was carried out by an external professional without any links to the project. According to the ICIQ-UI SF post-treatment score patients were also divided into 3 groups: "cured" when it was 0; "improved" when it was lower than pre-treatment and "failed treatment" when it was equal or higher than pre-treatment score.

### Results

Tension free vaginal tape (RP) was applied to 77 women (64.2%) and (TO) to 43 (35.8%). No statistical differences on demographic and basal data (age, parity, BMI, previous surgery, menopausal status, ICIQ-UI-SF score, percentage of urodynamic mixed UI, maximum urethral closure pressure and associated surgical procedures) were found between the two groups. According to the post-treatment urodynamic evaluation, 74 patients (96%) were "cured or improved the SUI" in the RP group and 39 (91%) in the TO group ( $p=0.208$ ). According to the ICIQ-UI SF total score, 71 patients (92.2%) were "cured or improved of their UI symptoms" in the RP group and 37 patients (86%) in the TO group ( $p=0.221$ ). Considering *independently cured and improved patients*, in the RP group 66 patients showed no leakage during postcystometry stress test (86%) and 26 patients were cured (61%) in the TO group ( $p.003$ ). According to the ICIQ-UI SF total score, only 55 (71.4%) patients "*felled cured of their symptoms*" in the RP group vs 22 (51.2%) in the TO group. The mean of the ICIQ-UI SF post-treatment score of RP group was lower than that of TO group: 2.5 (4.8) vs 4.7 (6.2). The agreement between the "cured" classification according to the ICIQ-UI SF score and the conventional urodynamic study was 70.1% ( $\kappa=0.36$ ) in the RP group and 55.8% ( $\kappa=0.13$ ) in the TO group. There were no statistically significant differences between the two treatment groups with respect to the complications, duration of surgery, total hospital stay and post-surgery stay, but the days with bladder catheterization were longer in the RP group.

### Interpretation of results

When cure and improvement are considered together, the treatment outcome of the two surgical procedures were similar. But the proportion of women objectively and subjectively cured of the SUI was higher in the RP group. The agreement between the "cured" classification according to the ICIQ-UI SF score and the conventional urodynamic study was moderate in the RP group but low in the TO group.

Concluding message

There are important differences when evaluating the treatment outcome in urinary incontinence (UI) depending on what is considered a good outcome (cure+improvement vs cure alone) and on what method is used to assess the outcome (urodynamic study vs self-reported questionnaire).

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