884

Muñoz M[1], Usandizaga R[1], Puch M[2], Santisteban J[1]
1. *Hospital La Paz. Madrid. Spain,* ***2.*** *Hospital Infanta Sofia. Madrid. Spain*

EXPERIENCE OF TRANSVAGINAL ADJUSTABLE TAPE IN FEMALE URINARY INCONTINENCE

Hypothesis / aims of study
At present, tension-free vaginal tape is the standard surgical technique for correcting female stress urinary incontinence (SUI). Since its inception, results have been published on the effectiveness in resolving SUI, with cure rates of >85%. But one problem when applying a sling mesh to patients with SUI is the judgment of appropriate sling tension because difference between incontinence, continence and obstruction after tension-free tape implant is very small.
When the tape is too tight, urinary obstruction is produced but if the tape is too loose incontinence persists and in both cases satisfaction of the patient worsen as urinary symptoms persist after surgery. The possibility to adjust postoperatively the tension applied to the tape can be an useful alternative to resolve this problem.

Study design, materials and methods
Forty-one patients who underwent mid-urethral sling with adjustable vaginal tape (TVA/TOA, Presurgy S.L) between January 2007 and December 2012 and were followed for > 6 months after surgery were included. Tape used is a macroporous polypropylene monofilament tape with polypropylene threads permitting postoperative adjustment of tension. These threads are removed when continence is achieved with a cough test with a full bladder with 300 ml saline without obstruction (less than 100 ml after spontaneous micturition).
Treatment success was defined as absence of subjective leakage (cure), rare subjective leakage but satisfactory to the treatment (improvement) or increase subjective leakage (failure). We analyzed the results according to the adjustment (Group I: no adjustment; Group II: adjustment). Mean follow-up duration was 15.29 months (6-30).

Results
Mean age was 59.27 years (40-74). Twenty-nine (70.7%) were menopausal women and 95.1% had one or more vaginal deliveries. Fourteen (34.1%) patients had any grade of proplapse associated. Mean body mass index (BMI) was 28.48 (20.20-42.15). Sixteen patients (39%) were overweight (BMI 25-29.99 kg/m^2) and fifteen (36.6%) obesity (BMI over 30 kg/m^2). Fifteen (36.6%) patients had previous prolapse surgery and eight (10.5%) patients failed incontinence surgery. Thirty (73.2%) patients had pure SUI and 11 patients had stress predominant mixed incontinence. We used this kind of vaginal tape in thirty-three patients because of the severity of symptoms (great leakage during cough test or leakage with low bladder capacity) and in eight patients because of failure previous incontinence surgery. Tape was placed retropubic (TVA) in twelve patients (29.3%) and transobturator in twenty-nine patients (70.7%). Mean surgery length was 42.32 minutes (10-115). We associated other surgical technique different mid-urethral sling in 22% cases. Mean hospital stance was 2.61 days (1-8).
Sling tension was adjusted postoperatively in 20 patients (48.8%) (tension strengthening 18 cases and tension releasing 2 cases). Global treatment cure rate was 82.9%, improvement rate 9.8% and failure rate 7.3%. There were not significantly differences between groups. Also there were not differences when we analyzed our results according to type of surgery, indication of adjustable tape or body mass index.
There were no cases of bowel or major vessel injury. One case of bladder perforation (2.4%) was identified and other case of small vaginal erosion (2.4%).

Interpretation of results
The present study demonstrates that the adjustable vaginal tape was effective for the treatment of female stress and mixed urinary incontinence. 48.8% patients needed adjustment in the postoperative period and this possibility improves subjective cure rate, specially in patients with severe stress incontinence or with risk factors of recurrence like obesity.

Concluding message
Adjustable tape allows postoperative adjustment of the tension applied during surgery obtaining improved results than with the traditional non-adjustable tape without increasing surgical complications.

Disclosures
Funding: None **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Local Research Ethics Committee **Helsinki:** Yes **Informed Consent:** Yes