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# TRANSOBTURATOR TENSION-FREE VAGINAL TAPE (TOT) FOR THE SURGICAL TREATMENT OF FEMALE STRESS URINARY INCONTINENCE (SUI)

Hypothesis / aims of study

To evaluate the efficacy and complications of TOT technique for the treatment of SUI and describe the differences between the types of tape used in our service. Secondly, to compare TVT and TOT procedures in our experience.

Study design, materials and methods

In this retrospective study, 300 women underwent TOT between January 2003 and December 2005. All of them had SUI preoperatively, showing or not vaginal prolapse. The mean patient age was 63 years (range 29-85) with a parity of 2,6 (0-13). The median body mass index (BMI) was 28,1 kg/m$^2$ (17,9-47,9). 29,4% of the patients had a BMI ≥30 kg/m$^2$. 2,6% of the cases had an isolated urinary incontinence and 97,4% had concomitant pelvic floor defects. 24,2% reported mixed incontinence but only in 18,2% an urodynamic examination was carried out. 4,5% had a previous incontinence surgery. The distribution by grades of SUI was: 30% grade I, 56% grade II, 14% grade III. In relation to the kind of sling, we used a thermal-linked (nonwoven), micropore, monofilament polypropylene mesh (Obtape) in 36,4% and a macropore, monofilament one in 63,6% (Monarc 31,6%, TVT-O 24,2%, Aris 7,8%). The TOT procedure was performed after repairing pelvic floor defects if needed and always following manufacturer instructions.

Results

Operative complications were: 1% bladder perforations. No other lesions were observed. The immediate post-operative period was marked by 5,2% urinary infections and 1,5% transient retentions (≥7 days with catheter). Late post-operative complications were: 2,6% repeated urinary infections with a case of obstruction (transvaginal tape section needed), 12,7% de novo urge incontinence, 0,7% dysuria, 1,1% obturator abscess (all with Obtape), 2,2% vaginal mesh erosion (4/6 with Obtape).

The mean of days of hospitalisation was 5 days (2-26) and the mean of urinary catheterisation 2 days (1-13).

With regard to efficacy, the cure rates were 93,2% at 1 month, 94,6% at 6 months, 93,9% at 1 year and 90,6% at 2 years. It seems that Obtape is less effective than the other tapes in all the evaluations (Obtape: 89,7%, 91,5%, 89,6%, 80% versus TVT-O: 95,4%, 98,1%, 97,6%, 100% and Monarc: 96,4%, 95,7%, 96,9%, 100%).

Interpretation of results

If we compare these cure rates and our data of efficacy with 647 TVT (93,5% at 1 month, 92,9% at 6 months, 92,9% at 1 year and 91,7% at 2 years), no significative differences were found. In terms of complications, the rate of bladder perforation was 9,4% in the TVT group vs. 1% in the TOT group; bowel perforation 0,1% with TVT vs. 0% with TOT; urinary retention 10,5% vs. 1,5%; Retzius hematoma 0,7% vs. 0%; tape section 1,1% vs. 0,4%. Our data are similar to other publications.

Concluding message

TOT appears to be equally efficient and safer than TVT. It's a procedure valid for any grade of SUI and it can be associated to pelvic floor repairing surgery. The Obtape sling has cure rates lower and risk of infection and erosion higher than the other tapes, probably due to the small size of the pore.

**FUNDING: NONE**
**DISCLOSURES: NONE**
**HUMAN SUBJECTS: This study was approved by the University Hospital, Madrid, Spain and followed the Declaration of Helsinki Informed consent was obtained from the patients.**