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DOES TENSION CHANGES THE OUTCOME OF TVT? A PROSPECTIVE MULTICENTRE STUDY OF 809 PATIENTS.

Hypothesis / aims of study

In the original article of Ulmsten and Petros (1) the authors stress on the fact that "no elevation whatsoever was done" during the procedures described. This to prevent "passive kinking of the urethra".
The aims of this study were to investigate whether the tension put on the TVT by the surgeon changes the final outcome on urinary stress incontinence (USI), urge incontinence and obstructive micturition.

Study design

A multi center prospective cohort study of 809 patients undergoing a TVT procedure. The current follow-up is two years.

Materials and methods

Between March 2000 and September 2001, patients with an indication for the TVT procedure were asked to participate in this study. The procedures took place in 41 different hospitals in which 54 gynecologists and urologists performed the TVT procedure. Among the 41 hospitals there were 3 university hospitals, 25 teaching hospitals and 13 local hospitals. All participating gynecologists and urologists were qualified to perform vaginal surgery and had a short training in performing TVT's by an experienced surgeon.
Inclusion criteria were stress urinary incontinence (SUI) with an indication for surgery. Exclusion criteria were: recurrent and difficult to treat urinary tract infections, significant symptoms of urge urinary incontinence, a history of or detrusor over activity at cystometry, post voiding bladder retention (>150 ml), bladder capacity less than 200 ml or a physical/mental impairment.
The operation was carried out under local anesthesia using 0.25% prilocaine with adrenalin and sedation, spinal analgesia or general anesthesia. Directly post operative the surgeon was asked to fill out a form in which he or she stated the amount of tension he or she put on the TVT (lose, moderate or tight). The outcome of the TVT's was measured with a disease specific HRQOL questionnaire the Urogenital Distress Inventory (UDI). Uebersax et al. (2) validated a short form for this questionnaire (UDI-6). These questionnaires were translated and validated in the Dutch language by van der Vaart (3). Patients received the postal questionnaires: preoperative, 12 and 24 months after surgery. As outcome variables the subscales stress incontinence, irritative and obstruction of the UDI were taken. The subscale stress comprises two questions: Do you experience, and if so, how much are you bothered by: 1 leakage related to activity, coughing, or sneezing and 2 small amounts of leakage (drops). The subscale for irritative comprises the questions: Do you experience, and if so, how much are you bothered by: 1 frequent urination, 2 leakage related to feeling of urgency. The subscale for obstructive/discomfort comprises the questions: Do you experience, and if so, how much are you bothered by: 1 difficulty emptying bladder, 2 pain or discomfort in lower abdominal or genital area. The answers give points on a 0-100 scale where 100 means the most bothersome and 0 no symptoms at all.

Results

Of the initial 809 patient we received results from 688 patients on the tightness of the tape (85%), group 1 (tape lose) 257 patients (37.4%), group 2 (tape moderate) 393 patients (57.1%) and group 3 (tape tight) 38 patients (5.5%). The follow-up after 2 years was for all 3 groups 76%. Patient characteristics as well as preoperative scores for the UDI were comparable between the three groups. Table 1 shows the scores on the UDI for the three different groups. No significant difference was found between the 3 groups.

Table 1: UDI SCORES

	tape lose	tape moderate	tape tight	sign
preoperative				
subscale irritative	64.8	68.1	67.1	0.306
subscale stress	75.0	77.0	77.6	0.485
subscale obstruction	32.2	32.8	30.1	0.801
1 year postoperative				
subscale irritative	28.6	28.7	36.5	0.298
subscale stress	12.6	12.7	18.5	0.314
subscale obstruction	22.7	22.8	20.8	0.902
2 years postoperative				
subscale irritative	31.1	29.5	34.8	0.578
subscale stress	15.0	16.5	17.4	0.717
subscale obstruction	25.0	23.3	25.0	0.740

One-way ANOVA, Post Hoc Bonferroni test
* Significant P-value < 0.05
The values presented are the mean scores on the UDI subscales. A high score means more bother.

Interpretation of results

The values in Table 1 are the scores on the different subscales. The points are on a 0-100 scale where hundred means the most bothersome and zero no symptoms at all. There are no significant differences in UDI scores between the lose, moderate and tight tape groups. The subscale scores are comparable between the three groups before surgery as well as 1 year and two years post operative.

Concluding message

A tight, moderate or lose placement of the TVT underneath the urethra, as reported by the surgeon, has no effect on the final result for stress incontinence, postoperative urge incontinence or obstructive micturition.

References

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