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Alarab M[1], Minassian V [1], Lovatsis D[1], Drutz H [1]
1. Mount Sinai Hospital

TVT IN PRIMARY AND RECURRENT URINARY INCONTINENCE: DO THE RESULTS DIFFER?

Hypothesis / aims of study

Tension free vaginal tape (TVT) is an established procedure for the treatment of primary stress urinary incontinence. However previous reports have suggested a lower success rate with TVT as repeat procedure. (1-4)The objectives of this study are to evaluate and assess the outcome and the complications rate of TVT procedure in the treatment of primary and recurrent urinary stress incontinence.

Study design, materials and methods

A prospective study of all Patients who underwent TVT procedure for primary and recurrent urinary stress incontinence over fifty-four months (June 1999-December 2003) was undertaken. All patients had preoperative urodynamic studies, which included: uroflowmetry, multichannel cystometry, and urethral pressure profilometry both at stress and resting phase. The TVT procedure was done under general, regional, or local anaesthesia. All patients had urinary catheter inserted postoperatively and removed the next day. Patients who had TVT as a day case procedure had the catheter removed three hours postoperatively, if post void residual (PVR) was > 150 cc then the patient will be taught clean intermittent self catheterisation. The postoperative follow up schedule was at six weeks, 3 months, six months, 12 months, and yearly. At one-year visit, a multi-channel urodynamic study was performed. Furthermore, at each visit a subjective lower urinary tract symptoms and objective outcome data (cough test at supine and erect position with a comfortably full bladder) was recorded, with uroflow study to document the maximum flow rate, the voiding time, the voided volume and the post void residual. Data were analysed using Student-t test, $P < 0.05$ was considered significant.

Results

During the study period, 165 patients underwent TVT procedure, of whom 31 had recurrent urinary stress incontinence and 134 had TVT as a primary procedure. The mean age for recurrent and primary groups was 64 years (range 50-85) and 56 years (range 29-79) respectively. Seventy-six patients (46%) had general anesthesia, 80 (49%) had spinal anaesthesia, 6 (4%) had epidural anaesthesia, and 3 (2%) had local anaesthesia.
The mean follow up period was 25 months (range 3-48 months).

The total cure rate was 88% [primary 88% and 88.6% in recurrent urinary stress incontinence (*P*=1.00)]. Of 31 patients who had recurrent stress incontinence, the primary procedure was anterior colporrhaphy in 25 (81%), Marshall-Marchetti-Krantz procedure (MMK) in 4 (13%), Burch colposuspension in 1 (3%), and laparoscopic Burch colposuspension in 1 (3%).
Twenty (65%) patients with recurrent urinary stress incontinence had concomitant pelvic floor surgery including vaginal hysterectomy, anterior and posterior colporrhaphy, open or laparoscopic abdominal colposacropexy, and sacrospinous vault suspension.
There were two cases of tape erosion into the vagina, both in primary cases. There were 6 (4%) bladder perforations in the primary cases versus 2 (6%) in the recurrent group (P=0.64). Early Voiding dysfunction among patients with recurrent and primary stress incontinence occurred in 20 (64%) versus 67 (50%) respectively (*P*=0.165). All cases of voiding dysfunction were managed conservatively with no long-term consequences. Ninety-five percent of the patients who had TVT alone were discharged on day one postoperatively.

Interpretation of results

The mean age of patients with primary stress urinary incontinence (SUI) is lower than the recurrent SUI, 56 years versus 64 years respectively. However there were no significant differences in the success rate of the two groups 88% (primary) versus 88.6% (recurrent). The differences in the complication rate among the two groups with regards to: Bladder perforations and voiding dysfunction were not significant.

Concluding message

Tension free vaginal tape is highly effective among patients with recurrent stress incontinence, with outcomes comparable to patients with primary incontinence.

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