

THE "INSIDE-OUT" TRANS-OBTURATOR TENSION-FREE VAGINAL TAPE (TVT-O) FOR THE MANAGEMENT OF OCCULT STRESS URINARY INCONTINENCE IN WOMEN UNDERGOING PELVIC ORGAN PROLAPSE REPAIR

Hypothesis / aims of study

Clinically continent women with high grade pelvic organ prolapse (POP) are considered to be at high risk of developing postoperative stress urinary incontinence (SUI) once the prolapse is repaired. The present study was conducted to assess the safety and effectiveness of the "inside-out" trans-obturator tension-free vaginal tape (TVT-O) procedure for the management of occult urodynamic SUI in clinically-continent women undergoing prolapse repair.

Study design, materials and methods

A total of 117 consecutive clinically-continent women who underwent concomitant TVT-O procedure and prolapse repair for urodynamically-proven occult SUI and severe POP were enrolled. Main outcome measures were procedure-related complications, early and late postoperative morbidity, postoperative urodynamic SUI, persistent, or *de novo* overactive bladder (OAB), and bladder outlet obstruction (BOO).

Results

Of the 117 patients, 112 had stage 3 or 4 prolapse and 5 had stage 2 prolapse. Preoperatively, none complained of SUI, all were found to have urodynamic occult SUI, and 44 (37.6%) also had concomitant OAB. The mean age and parity of the patients were 66.8 ± 9.9 years and 3.2 ± 1.5 , respectively. Main surgical intervention comprised of vaginal hysterectomy combined with anterior/posterior colporrhaphy in 89 (76%) patients, and anterior/posterior colporrhaphy in the remaining patients. A prophylactic TVT-O procedure was performed on all patients. The mean hospital stay was 5.4 ± 2.2 days. 6 (5.1%) patients had immediate postoperative voiding difficulties necessitating catheterization for more than 2 days. All but one resumed spontaneous voiding within two weeks postoperatively. 7 (6.4%) patients had protracted postoperative thigh pain with spontaneous resolution within 1-3 months. 7 (6.4%) other patients developed recurrent UTIs. None of the patients developed vaginal erosion of the tape.

Of 117 eligible patients, 7 were lost for further follow-up after the first postoperative visit. All other 110 patients were available for a complete postoperative clinical and urodynamic analysis. Mean follow-up of the patients was 27.2 ± 17.7 months (range 4 to 65 months). 14 (12.7%) patients were found to have urodynamic SUI, however only 2 (1.8%) were symptomatic (subjective and objective cure rates of 98.2% and 87.3%, respectively). Of the 44 patients who had preoperative OAB, 29 (65.9%) still had persisting symptoms after operation. 4 other patients (6% of patients who did not have preoperative OAB) developed *de-novo* OAB symptoms. Several patients complained on voiding difficulties, however only one patient was found to have BOO by pressure-flow studies.

Interpretation of results

Our reported subjective cure rate (98.2%) is comparable to the 98%, 96% and 95% subjective cure rates reported for prophylactic retro-pubic TVT [1], Burch [2], and pubovaginal sling [3], respectively. *De-novo* OAB developed postoperatively in 4 (6%) of our patients. This rate is similar to the previously reported rates of 7%-9.5% of *de novo* urge incontinence after prophylactic retro-pubic TVT, or pubovaginal sling surgery, and superior to the 30% rate of *de novo* detrusor overactivity reported for prophylactic Burch colposuspension. Early and late postoperative morbidity associated with the prophylactic TVT-O procedure was uncommon: There were no cases of significant blood loss, hematoma formation, bladder injury, or tape erosion.

Concluding message

Results of our study suggest that prophylactic TVT-O procedure is both effective and safe in patients with occult SUI undergoing prolapse repair.

References

1. Neurourol urodyn 2004; 23:632-635.
2. Am J Obstet Gynecol 2000; 182:1378-81.
3. Urology 2002; 59:856-860.

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Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Hospital Ethics Committee
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes