

CLINICAL REPORT ON TENSION-FREE VAGINAL TAPE-SECUR FOR FEMALE STRESS URINARY INCONTINENCE

Hypothesis / aims of study

The aim of this study was to evaluate the effectiveness of a new minimally invasive surgical procedure, the tension-free vaginal tape-SECUR (TVT-S), in the treatment of female stress urinary incontinence (SUI) and to discuss the indications for this procedure. In addition, this paper analyzed bladder and urethral function and quality of life in the patients with SUI after the TVT-S operation.

Study design, materials and methods

Twenty-seven consecutive women with SUI who underwent the procedure were enrolled retrospectively in this study from November 2008 to November 2009. The mean age was 51 years (range 25–69). The mean duration of disease was 7 years (range 1-20 years). Of the SUI patients, 1 case had plication of anterior vaginal wall before. According to pelvic organ prolapse quantification system (POP-Q), point Aa in the SUI patients was from -2 to -1cm. The Q-tip straining angle was greater than 60 degrees. The preoperative bladder compliance was normal, the mean maximum urethral closure pressure (MUCP) was 40 cmH₂O (range 25-60 cmH₂O), and the Valsalva leak point pressure (VLPP) was greater than 60 cmH₂O (Valsalva manoeuvre could not induce leakage of urine in 10 cases). All the patients had pure stress urinary incontinence except 1 had mixed urinary incontinence. Mean follow-up time was 8.7 months (range 3-15 months). The other outcome measures included operation time, postoperative complications, therapeutic effectiveness and quality of life.

Results

All patients underwent the procedure under local anesthesia. Of these patients, 4 cases (MUCP<30 cmH₂O) underwent TVT-S with "U" position while the other 23 underwent TVT-S with "Hammock" position. The mean operation time was 8 minutes (range 6-15 min) and blood loss during operation was about 10 ml. There was no urethral and bladder injuries during the procedure. Postoperative indwelling catheterization was kept for 0-1 day. The first 10 patients were not catheterized after the operation and 4 had transient urinary retention postoperatively, requiring urinary catheterization; hence, the following 17 patients were given prophylactic indwelling catheterization, no urinary retention occurred after removal of urinary catheter in the next day. After follow-up, 26 patients were cured without pad usage and 1 with mixed UI had prominent improvement in urgency incontinence symptom. The quality of life was also improved significantly.

Interpretation of results

TVT-S is intended for use in women as a suburethral sling for the treatment of SUI resulting from urethral hypermobility and/or intrinsic sphincter defect. It restores normal pelvic anatomy and function.

Concluding message

TVT-S is a safe, effective and minimally invasive procedure for SUI with less complication. The patients with normal bladder compliance and MUCP, urethral hypermobility are indicating to this surgery, some elderly patients or patients with low urethral pressure were proposed to undergo "U" position TVT-S or TVT. The safety and effectiveness still needs to be further investigated and studied.

<i>Specify source of funding or grant</i>	no
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	No
<i>This study did not require ethics committee approval because</i>	It is a retrospective study.
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes