

THE DURABILITY OF EFFICACY OF THE TVT-SECUR PROCEDURE FOR TREATMENT OF FEMALE STRESS URINARY INCONTINENCE: TWO-YEAR FOLLOW-UP

Hypothesis / aims of study

Recently the TVT-SECUR (TVT-S) was reported as having a 78-84% 1-yr cure rate^{1,2}. The aim of our study was to evaluate the durability of efficacy of the TVT-S procedure for treatment of female stress urinary incontinence (SUI) throughout the 2 year follow-up period.

Study design, materials and methods

We evaluated the results of 94 female patients with urodynamic SUI who underwent TVT-S (H type: 41 and U type: 53) between March 2007 and July 2008. Preoperative measures included urodynamic study, 3-day voiding diary, Incontinence Quality of Life (I-QOL) questionnaire, and Bristol Female Lower Urinary Tract Symptom-Short Form (BFLUTS-SF) questionnaire. Surgical cure was defined as 'urinary incontinence was completely resolved as determined by a cough test' and improvement as 'significant reduction of urine leakage and no need for pads or specific treatment despite occasional incidences of urinary incontinence'. The median follow-up was 12.8 (6-34.8) months.

Results

The majority of the patients were in either Stamey grade 1 or grade 2—grade 1 (56.4%), grade 2 (42.6%) and grade 3 (1.0%). Of all the patients, 94 patients were followed up for 6 months; 77 patients for 12 months; 23 patients for 24 months postoperatively. The overall success rates at postoperative 6, 12 and 24 month were 89.4%, 88.3% and 82.6%, respectively ($p=0.346$). Among 23 patients who were followed-up for 24 months, success rates at postoperative 6, 12 and 24 month were 91.3%, 82.6% and 82.6%, respectively ($p=0.604$). There was no significant difference in the success rates between the 'H' and 'U' approaches. There was no significant difference in the success rates according to VLPP (VLPP<60 vs VLPP≥60), MUCP (MUCP< 40 vs MUCP≥40), BMI, and the SUI grade. We re-evaluated our surgical technique after the initial 3 month period because of the lower cure rate. With the proper tensioning and exact insertion of the needle the cure rate improved (initial 30 patients: 80.0% vs next 56 patients: 89.3%, $p=0.045$). Urgency and urgency incontinence improved in 24.1% and 50%, however, 1.8% and 1.5% developed *de novo* urgency and urgency incontinence. All domains of I-QOL and BFLUTS-SF, except the voiding factor, were significantly improved after surgery. During operation, 1 patient had bladder injury, and 3 patients had perforation of the anterior vaginal wall; both complications were successfully managed with primary repair. Mesh erosion to vaginal wall occurred in one patient with 'H' approach at postoperative 21 months and one with 'U' approach at postoperative 3 month. Eight women (5 with 'H' and 3 with 'U') retreated for persistent SUI. Of those, 4 were managed with tape tightening, 2 with another TVT-S approach, and 2 with TOT. All these patients were successfully managed.

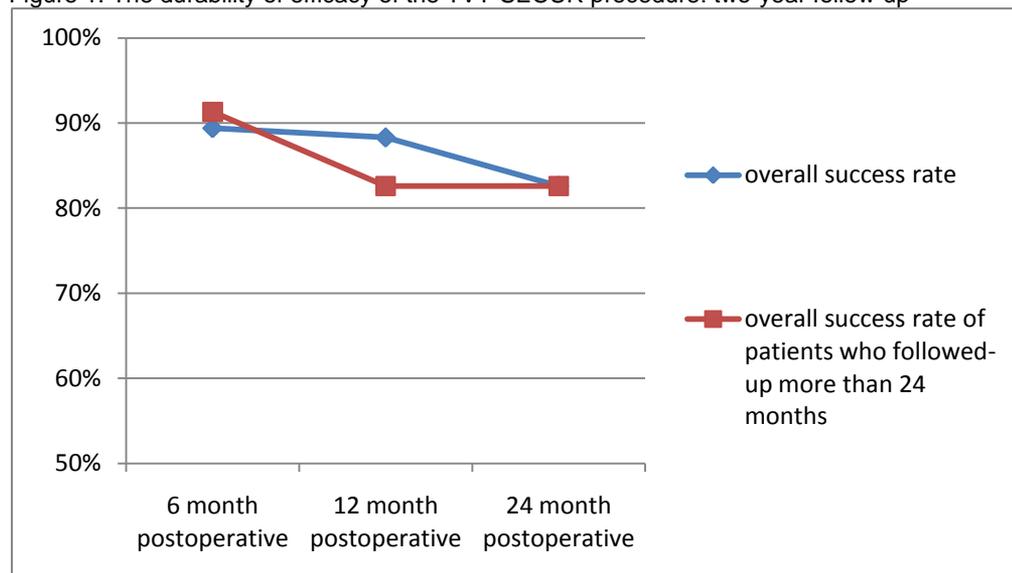
Interpretation of results

There was a trend that the success rate of TVT-S decreased until postoperative 12 month but maintained up to postoperative 24 month. But there was no significant difference of success rate with follow-up time (6,12, 24 month postoperatively).

Concluding message

TVT-S is an efficacious and durable surgical procedure for female SUI with low complication rates.

Figure 1. The durability of efficacy of the TVT-SECUR procedure: two-year follow-up



1. Meschia M, Barbacini P, Ambrogi V, Pifarotti P, Ricci L, Spreafico L. TVT-Secur: a minimally invasive procedure for the treatment of primary stress urinary incontinence. One year data from a multi-centre prospective trial. *Int Urogynecol J Pelvic Floor Dysfunct* 2009;20:313-317
2. Lee KS, Lee YS, Seo JT, Na YG, Choo MS, Kim JC et al. A prospective multicenter randomized comparative study between the U- and H-type methods of the TVT SECUR procedure for the treatment of female stress urinary incontinence: 1-year follow-up. *Eur Urol* 2010;2 [Epub ahead of print]

References

1. Meschia M, Barbacini P, Ambrogi V, Pifarotti P, Ricci L, Spreafico L. TVT-Secur: a minimally invasive procedure for the treatment of primary stress urinary incontinence. One year data from a multi-centre prospective trial. *Int Urogynecol J Pelvic Floor Dysfunct* 2009;20:313-317
2. Lee KS, Lee YS, Seo JT, Na YG, Choo MS, Kim JC et al. A prospective multicenter randomized comparative study between the U- and H-type methods of the TVT SECUR procedure for the treatment of female stress urinary incontinence: 1-year follow-up. *Eur Urol* 2010;2 Epub ahead of print

<i>Specify source of funding or grant</i>	None
<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>	This study is retrospective study and we evaluated only medical record.
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	No