

TRANSOBTURATOR SUBURETHRAL TAPE VERSUS SINGLE INCISION SLING SYSTEM: COMPARISON OF EFFICACY FOR STRESS URINARY INCONTINENCE WITH URGENCY

Hypothesis / aims of study

The purpose of this study was to compare transobturator suburethral tape (TOT) with single incision sling system (TVT-Secur system, TVT-S) for their effect on patients of urodynamic stress urinary incontinence (SUI) with urgency.

Study design, materials and methods

Between January 2006 and March 2008, Retrospective data was collected from 306 women with urodynamic SUI who underwent TOT (n=172) or TVT-S (n=134) operation with at least 6 month follow up. SUI with urgency was present in 85 patients of TOT group and 75 of TVT-S group. Before operation, following measures were recorded; detailed history, physical examination, voiding diary, Indevus urgency severity Scale (IUSS) and preoperative urodynamic study with valsalva leak point pressure. And we analyzed the surgical outcome and improvement of urgency especially focusing on changes in IUSS after surgery.

Results

Baseline characteristics of patients were shown at table 1. There was no statistical difference of preoperative parameters in two groups. Overall success rate for SUI symptom was 97.6% (cured 92.9%, improved 4.7%) in TOT group and 96% (cured 89.3%, improved 6.7%) in TVT-S group. Mean operation time was 34.4±9.8min in TOT group and 25.6±10.9 in TVT-S group (P<0.05). In TOT group, 23 patients (27%) had mild urgency with SUI, 33 (38.8%) had moderate urgency, and 29 (34.1%) had severe urgency. In TVT-S group, 10.7% (n=8) had mild urgency with SUI, 21.3% (n=16) moderate urgency with SUI and 68% (n=51) severe urgency with SUI. In aspect of success rate of urgency, no statistical significant difference was observed in both group (TOT:TVT-S, 76.5%:73.3%). But, TOT group showed higher cure rate about urgency (TOT:TVT-S, 57.6%: 40.0% p= 0.02). In SUI with severe urgency, The cure rate about urgency was 31% in TOT group and 27.5% in TVT-S group. There was no statistical difference.

Interpretation of results

In both TOT and TVT-S group, Urge urinary symptom was improved after anti-incontinence surgery and higher cure rate was shown in TOT group compared to TVT-S group.

Concluding message

Our results suggest that both TOT and TVT-S are effective treatment for women with SUI and also improved on urgency symptoms. However longer follow up data are necessary before establishing the definitive success of surgery.

Table 1. Baseline characteristics of patients undergoing the TOT and the TVT-S procedure

Characteristics	TOT (n=85)	TVT-S (n=75)	p-value
Mean age (years)	49.4±8.1	48.8±7.7	0.64
Mean BMI (kg/m ²)	23.9±2.9	23.7±2.5	0.63
Mean symptom period (years)	7.2±7.5	8.3±5.7	0.55
Mean normal vaginal delivery	2.7±1.3	2.4±1.3	0.35
Valsalva leak point pressure (cmH ₂ O)	78.0±18.8	80.9±16.8	0.07
Pre operative Qmax (ml/sec)	23.7±8.5	25.0±10.9	0.38
Preoperative post-void residual urine volume (ml)	10.7±15.9	13.3±13.6	0.26

References

1. J Urol. 2005 174(2):604-7

Specify source of funding or grant	NONE
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	Not necessary
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	No