

Complications and Re-operations after Tension-free Vaginal Tape operation in women with Stress Urinary Incontinence

Aim: Mid Urethral Sling (MUS) operations including retropubic Tension-free Vaginal Tape (TVT) operations for stress urinary incontinence (SUI) has proven to have a high objective and subjective cure rate. However, a fraction of patients will experience intra- and/or postoperative complications or persisting incontinence symptoms, thus needing subsequent treatment or re-operation. The aim of this study was therefore to evaluate intraoperative and short-term postoperative complications (< 3 months) and long-term re-operations (up to 6 years) after TVT operation. A secondary aim was to examine the postoperative patient-assessed improvement in urinary incontinence symptoms and the association between complications and baseline patient demographics.

Methods: Data from 446 women undergoing TVT operation during a five-year period from January 2012 to December 2016 at a tertiary referral center was collected. Data included patient baseline demographics, scores from a patient questionnaire (the International Consultation of Incontinence Questionnaire-Urinary Incontinence Short Form (ICIQ-UI SF)), and information about the TVT operation and the following postoperative period. Collected data was investigated for incidence of complications and re-operations, postoperative improvement in ICIQ-UI SF, and association between complications and baseline patient demographics.

Results: The only intraoperative complication was bladder perforation (2.0%). Postoperative complications included: infection (0.7%), hematoma (0.9%), bleeding (0.2%), pain (0.9%), erosion of the vaginal mucosa (1.1 %), persistent SUI (0.7%), and voiding dysfunction > 24 hours (10.3%) (Table 1). No major complications occurred. Re-operations included; operation due to infection (0.4%), revision for tape erosion (1.1%), incontinence surgery for persistent SUI (0.4%), tape mobilization (3.6%), and tape division (0.2%). A Significant reduction in urinary incontinence symptoms was observed in the ICIQ-UI SF (from mean 15.6 to mean 1.7 after 3 months), which did not vary statistically significantly between patients with and without complications. No association between patient baseline demographics and complications was found.

Discussion: This study demonstrated a high safety and efficacy of the TVT operation with only minor complications and few re-operations. ICIQ-UI SF improved significantly after three months and was not affected by the occurrence of complications.

Table 1: Intraoperative and postoperative complications and the number of patients re-operated after primary TVT operation

	No. (%) of patients with complications	No. (%) of patients re-operated for complication
Intraoperative complications		
Bladder perforation	9 (2.0%)	-
Postoperative complications		
Infection	3 (0.7%)	2 (0.4%)
Hematoma	4 (0.9%)	-
Bleeding	1 (0.2%)	-
Pain	4 (0.9%)	1 (0.2%)
Erosion of vaginal muco:	5 (1.1%)	5 (1.1%)
Persisting SUI	3 (0.7%)	2 (0.4%)
VD > 24 hours	46 (10.3%)	17 (3.8%)