

COMPLICATIONS OF TENSION-FREE VAGINAL TAPE SURGERY: A MULTI-INSTITUTIONAL REVIEW OF 241 CASES.

Aims of Study

Tension-free vaginal tape (TVT) surgery has recently emerged as a minimally invasive alternative in the treatment of patients with urinary stress incontinence. We analyzed the complications of TVT surgery at 6 institutions. In addition, we reviewed the management of these complications and their impact on patient outcome.

Methods

241 cases of TVT performed by 6 urologists at 6 hospitals (2 university and 4 community) were retrospectively reviewed. Peri and post-operative complications, as well as their management, were analyzed. In addition, a med-line review of the literature was performed.

Results

The cure and improvement rates of this cohort were 76.5% and 18.1%, respectively. These rates are comparable to recent published reports. Intra-operative complications included bladder perforation in 5.8% of patients, and blood loss greater than 500 ml in 2.5% of patients. Immediate post-operative complications included urinary retention in 19.7% of patients, pelvic hematoma in 1.9% of patients, and suprapubic wound infection in 0.4% of patients. Late complications were de novo urgency, persistent suprapubic discomfort, and intra-vaginal tape erosion in 15%, 7.5%, and 0.4% of patients, respectively.

Most of these complications resolved with observation and medical management. Intra-vaginal tape erosion, however, required partial resection of the tape with closure and repair of the vaginal mucosa. Post-operative retention was treated with indwelling catheter in 34% of patients, clean intermittent catheterization (CIC) in 30% of patients, and release of the TVT in 36% of patients.

Conclusions

This study describes higher TVT complication rates than previously published in the literature. Our multi-institutional review, involving both academic and community hospitals, may better reflect the morbidity of TVT insertion in clinical practice. While most complications were easily treated with conservative measures, TVT erosion and urinary retention often required surgical intervention. In fact, we feel that post-operative urinary retention is best treated with immediate TVT release, as prolonged catheterization or CIC often resulted in patient discomfort. TVT is a highly effective, minimally invasive modality for the treatment of urinary stress incontinence. A greater understanding of the complications associated with this procedure may further improve surgical outcome and decrease patient morbidity.