

SURGICAL AND NONSURGICAL MANagements FOR COMPLICATIONS OF THE TENSION-FREE VAGINAL TAPE (TVT) PROCEDURE: A MULTICENTER REVIEW OF 476 CASES

Aims of Study

Although TVT procedure has known as a safe and simple surgery for female stress incontinence, a few complications need surgical interventions. We reviewed the complications and managements of this procedure underwent for 4 years.

Methods

476 women 29 to 85 years old (mean age 49.5) were treated for stress urinary incontinence with TVT by 3 urologists at 3 university hospitals. Patients were evaluated preoperatively with history taking, physical examination, multichannel urodynamics. As Stamey grading system, 253 patients were grade I, 164 were grade II, 59 were grade III. Retrospective analysis of complications divided into intra-operative and post-operative events. Managements

Results

Total 65 cases of complications (13.7%) were documented. Major intra-operative complication was bladder perforation (14 cases). Post-operative complications were tape-exposure (8 cases), voiding difficulties (20 cases), pelvic hematoma (3 cases), wound infection (2 cases), persistent suprapubic pain (2 cases), acute urinary retention (11 cases), and delayed vaginal bleeding (1 case). Persistent incontinence was found in 5 cases. Re-location of tape for bladder perforation was done immediately after injury and external elastic compression around pelvis could resolve hematoma. Oral anticholinergics and alpha-blockers improved post-operative frequency and hesitancy. 10 days oral antimicrobials could resolve wound infection. Tape releases for urinary retention were done in all cases of urinary retention and tape incision in 3 cases of retention. Vaginal wall revision needed for the exposed tape.

Table 1. Summary of complications in 476 patients with TVT procedure

Intra-operative	bladder perforation 2.9% (14)
Immediate post-operative	retention 2.3% (11)
	pelvic hematoma 0.6% (3)
Late post-operative	tape protrusion 1.7% (8)
	voiding diff. 4.2% (20)
	failure 1.1% (5)
	suprapubic pain 0.2% (1)
	dyspareunia 0.2% (1)
	late vaginal bleeding 0.2% (1)
	vaginal orifice adhesion 0.2% (1)

Conclusions

Serious complications including major vessel injury or bowel injury were not observed and most complications resolved with conservative treatment. Surgical interventions such as tape release, tape cutting, and vaginal repair were needed unexpectedly. Therefore, surgeon should be prepared for many potential complications.

References

- (1) Kuuva N, Nilsson CG. A nationwide analysis of complications associated with the tension free vaginal tape (TVT) procedure. *Neurourol Urodyn* 2000; 19: 394-395
- (2) Haab F, Sananes S, Amarenco G, Ciofu C, Uzan S, gattegno B, Thibault P. Results of the tension-free vaginal tape procedure for the treatment of type II stress urinary incontinence at a minimum followup of a year.