

ANALYSIS OF VOIDING DYSFUNCTION AFTER TRANSOBTURATOR TAPE PROCEDURE FOR STRESS URINARY INCONTINENCE

Hypothesis / aims of study

Voiding dysfunction is common complication of midurethral sling surgery for stress urinary incontinence, which includes urinary retention, reduced stream and incomplete emptying. [1] However, the definition of post-operative voiding dysfunction is inconsistent in the literature. Significant post-void residual (PVR), additional procedure for bladder emptying, subjective feeling of slow stream or objective flow rates can be a yardstick of voiding dysfunction. In this study we retrospectively analysed the risk factors for post-operative voiding dysfunction applying various definitions in one cohort.

Study design, materials and methods

Four hundred patients were evaluated who underwent transobturator tape procedure (TOT) for the first time. Past medical history and voiding symptoms were evaluated pre and post-operatively. Preoperative urodynamic study were performed and uroflowmetry and international prostate symptom score questionnaire were investigated pre and post-operatively. Several postoperatively parameters representing voiding dysfunction were adopted for analysis. Acute urinary retention requiring catheterization, subjective voiding difficulty on the day of catheter removal, voiding difficulty during follow-up, peak flow rate less than 12 m/s on the day of catheter removal and PVR greater than 100 mL or more than 50% of voided volume were the definition of voiding dysfunction. With these categories the preoperative parameters were investigated which may influence postoperative voiding dysfunction.

Results

Ten patients (2.5%) required catheterization, 16 (4.0%) complained voiding difficulty on the catheter removal day, 43 (10.8%) experienced post-operative voiding difficulty, 65 (17.7%) and 27 (7.4%) showed low flow rate and significant PVR. In additional procedure category and voiding difficulty on the catheter removal day, co-operation and general anesthesia were significant parameters, especially anteroposterior repair of vagina. Older and menopausal patients complained subjective voiding difficulty during follow-up period. The patients with voiding difficulty showed lower flow rates and larger PVRs. Patients with low flow rates and significant PVR had old age and low preoperative flow rates. The patients with postoperative low flow rates complained slow stream and patients with significant PVR more frequently argued feeling of incomplete emptying. The patients with voiding dysfunction tend to be prescribed alpha blocker during postoperative follow-up period. There were no significant urodynamic parameters attributing for various voiding dysfunction categories.

Interpretation of results

Preoperative urodynamic parameters did not demonstrate consistently reproducible prediction for voiding dysfunction in the study. This finding is consistent with other studies. Subjective pre-existing voiding symptoms (eg, urinary hesitancy) and obstructive voiding symptoms (eg, slow stream, intermittent flow, incomplete emptying) were found to be risk factors and, thus, should be evaluated in further studies.

Concluding message

Several factors including preoperative voiding symptoms and intraoperative parameters such as co-operation may affect postoperative voiding dysfunction. The diversity in clinical presentation underscores the importance of a high clinical suspicion with an appropriate diagnostic evaluation. Subjective and objective voiding dysfunction should be evaluated after midurethral sling operation.

References

1. Stanford EJ, Paraiso MF. A comprehensive review of suburethral sling procedure complications. J Minim Invasive Gynecol. 2008;15(2):132-145.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** retrospective analysis of medical records. **Helsinki:** Yes **Informed Consent:** No