

URGE INCONTINENCE AFTER TVT

Aims of Study

Symptoms suggestive of detrusor overactivity such as urge incontinence (UI) are a common finding in patients following the TVT procedure. Despite this, it has been claimed that the TVT procedure may in fact cure urge incontinence (1), at least in some women. We carried out a longitudinal case study in patients with and without preoperative symptoms of UI to determine whether the TVT confers any net benefit regarding this symptom in the medium term.

Methods

We carried out assessments of patients who had undergone a TVT procedure between July 1998 and May 2002 and included women with and without preoperative urge incontinence. Appointments were arranged in the context of an external yearly TVT audit. As part of a standardized questionnaire, patients were interviewed regarding a wide range of bladder symptoms including urge incontinence. Cox regression analysis was carried out on preoperative symptoms of urge incontinence, urgency, frequency, nocturia and dysuria for determining the postoperative development of UI. Regression modelling was also used to test for potential predictors of postoperative urge incontinence such as age, BMI and perioperative reduction in maximum flow rate centiles. GEE modelling was employed to test for the significance of changes in symptom prevalence over up to 54 months of postoperative follow up.

Results

145 patients participated in the yearly TVT audit. 21 datasets were incomplete and omitted from analysis. The mean follow up period was 17.5 (range 1-54) months. 74 patients (59.7%) complained of preoperative urge incontinence. The prevalence for UI at year 1 follow up was 45%, 47.2% at year 2, 50.8% at year 3, 51.4% at year 4 and 55.6% at year 5. A comparison of the prevalence of UI in women with and without preoperative UI is given in figure 1.

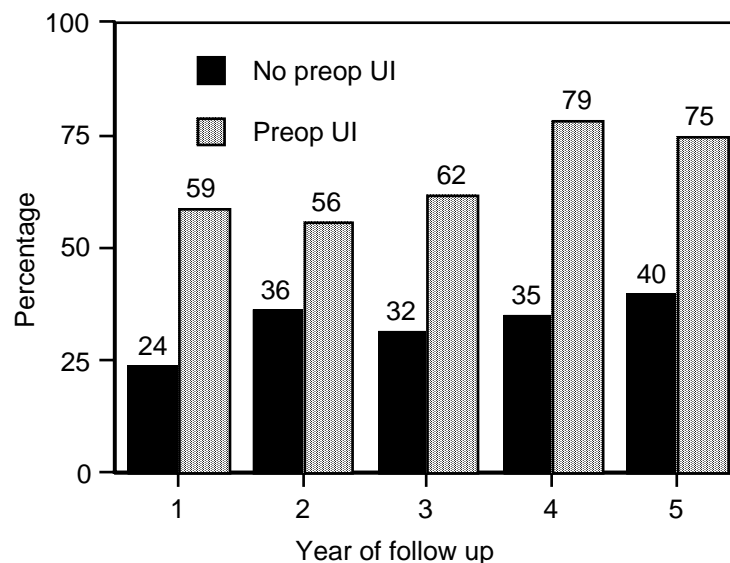


Figure 1: Prevalence over time of UI in women with and without preoperative UI

The reduction in UI from preoperatively to the first year follow-up was significant (McNemars test, $p=0.02$) as was the subsequent increase over time ($p= 0.039$ on GEE modeling) in the whole population.

The odds ratio for developing UI in each subsequent year of follow-up is 1.39 (95%CI 1.02 to 1.90). This is not affected by adjustment for pre operative urge incontinence. Patients with preoperative UI have a relative risk of 2.36 (95%CI 1.43 to 3.88) of suffering from UI after the operation. The only other factor influencing the likelihood of postoperative UI was the patients' age (odds ratio 1.07, 95%CI 1.01 to 1.14, $p=0.027$), with older women having a higher likelihood of complaining of postoperative UI.

Conclusions

As far as the authors are aware, this is the first longitudinal study of the prevalence of UI after TVT. So far, investigators have focussed on stress incontinence as main outcome measures although it is generally accepted that UI is the main cause of patient dissatisfaction after surgical intervention for female urinary incontinence (2). Ulmsten et al reported a cure rate of up to 85% in patients with mixed incontinence following TVT (1). Our study suggests that there may well be some reduction in the prevalence of UI after TVT; however, it appears that prevalence slowly increases again during the first few years after the procedure. There certainly seems to be no basis for claims that suburethral slings can be used to predictably cure UI. Factors that influence the likelihood of postoperative UI are preoperative UI and the patient's age, with older women being at increased risk.

References

- 1) Int Urogynecol J Pelvic Floor Dysfunct 2001;12 Suppl 2:S15-18
- 2) Int Urogynecol J Pelvic Floor Dysfunct 2000;11 Suppl 1:S32