814

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CLINICAL OUTCOMES IN PATIENTS UNDERGOING TVT-SECURTM FOR STRESS URINARY INCONTINENCE

Hypothesis / aims of study

The TVT-Secur™ mid-urethral sling has gained recent interest as a minimally invasive, single incision technique for stress urinary incontinence (SUI). Avoidance of the obturator or retropubic approach is postulated to reduce morbidity while attaining equal efficacy. Herein we review patient selection and outcomes for a large series of TVT-Secur™.

Study design, materials and methods

Retrospective review of 90 women who underwent TVT-Secur™ between 6/2006 and 6/2008 was conducted to evaluate demographics, voiding symptoms, urodynamics, prior treatments, concomitant procedures, pads per day (PPD), outcomes, and complications.

Results

Mean patient age was 60.6 years (43 – 88) with a mean follow-up of 7.5 months (1 – 26). Preoperative urodynamic analysis was performed in all patients, with a 100% diagnosis of SUI. Mean valsalva leak point pressure was 83 cm H_20 (15 – 180). Almost one-third of patients demonstrated detrusor overactivity preoperatively, however, by subjective appraisal 81% of patients reported mixed incontinence. Thirty-two percent of patients had prior SUI surgery and 45% underwent concomitant pelvic prolapse surgery. TVT-Secur™ placement resulted in a significant reduction in mean number of PPD utilized, from 2.82 to 0.43 ($p< 0.0001$). Eighty-three percent reported using no pads postoperatively. Interestingly, despite this dramatic decrease in PPD, on subjective evaluation only 53% of patients conveyed complete cure with 40% indicating improvement of symptoms. Nine patients reported de novo urgency, which represents 53% of those with isolated SUI. The majority of women (74%) with mixed urinary symptoms noted postoperative improvement in urgency. Complications included two episodes of transient urinary retention, 6 urinary tract infections, and 3 mesh extrusions, of which one resolved with conservative management with two requiring mesh excision. Five patients required subsequent bulking agent therapy and two women eventually underwent autologous sling placement.

Interpretation of results

This large series demonstrates the TVT-Secur™ as an effective option for treating SUI with an acceptable morbidity profile. Although half of patients with pure SUI on short-term follow-up noted de novo urgency, the majority of women with mixed symptoms reported improvement of their urgency.

Concluding message

This study provides critical background information for design of prospective analyses comparing the TVT-Secur™ technology to conventional surgical modalities.

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Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Vanderbilt University IRB**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**