

TVT-SECUR FOR STRESS URINARY INCONTINENCE

Hypothesis / aims of study

Urinary Incontinence (UI) is an embarrassing and troubling condition that women can experience with social and economic consequences. Prevalence can range from 20% up to 50% in the elderly (1). Stress urinary incontinence (SUI) is defined as the involuntary loss of urine from the urethra during physical exertion in the absence of detrusor activity. Surgical interventions have evolved through the years and TVT-Secur is one of the newer generation tension-free tapes for female stress urinary incontinence. The TVT-Secur System Device can be inserted either in a "U" position similar to the TVT or in the "hammock" position, similar to the TVT-O.

Study design, materials and methods

This was a retrospective, non-funded review on the use of TVT-Secur in the treatment of female SUI to evaluate the complications and efficacy of the procedure. From August 2006 to October 2007, 47 women who were seen at the Urogynaecology Centre for SUI had the TVT-S procedure done. SUI was diagnosed based on history, urogynaecological assessment and urodynamic studies. All patients were seen 6 months, 1 year and 2 years post surgery. A repeat urodynamic assessment was performed at the 6-month review. The aim of the study was to assess the complication rates and the efficacy of this novel procedure.

Results

Forty-seven women with SUI were treated with the TVT-S procedure. None of them had previous incontinence surgery. The mean age was 54.7 years and BMI was 24.8. 48.9% were postmenopausal and none of them were on hormone replacement therapy. The median parity was 3 and four women had a previous hysterectomy. 21.3% (10 patients) had pure SUI while the rest had mixed incontinence. Twenty-nine women (61.7%) had TVT-Secur alone while the rest had concomitant surgery for pelvic organ prolapse. Average operating time for TVT-S alone was 13.8 minutes and average blood loss was 22.3 mls. There were 2 (4.3%) cases of bladder perforation and 1 patient with haematuria. Three patients complained of voiding difficulties post surgery. Forty-five patients (95.7%) had the TVT-Secur implanted in the "hammock" formation and 2 (4.3%) in the "U" formation. At the end of 2 years, 10 patients were lost to follow up. A telephone interview was performed for these 10 patients who did not come for follow-up. 2 patients reported an improvement, 1 patient reported no change, and 7 patients were uncontactable. The total cure rate (out of 40 patients) was 71.8% (28 patients) and the improvement rate was 25.6% (10 patients). There were 2 failures (5.3%). No mesh erosion was noted in the review.

Interpretation of results

TVT-Secur is a surgical technique which is minimally invasive and easy to perform. However, the 2 year follow up showed a success rate of 75.7% which was lower than the conventional TVT/TVT-O surgery. There were significant peri-operative complications in the study group which could be due to the learning curve.

Concluding message

Further studies on larger numbers and longer follow-up are required to assess the efficacy and complications of TVT-Secur.

References

1. Sandvik H. Female urinary incontinence studies of epidemiology and management in general practice. Acta Obstetrica et Gynecologica Scandinavica 1996; 75(10):952-954

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| Specify source of funding or grant | Nil. |
| Is this a clinical trial? | Yes |
| Is this study registered in a public clinical trials registry? | Yes |
| Specify Name of Public Registry, Registration Number | SingHealth Centralised Institutional Review Board, 2010/022/D |
| Is this a Randomised Controlled Trial (RCT)? | No |
| What were the subjects in the study? | HUMAN |
| Was this study approved by an ethics committee? | Yes |
| Specify Name of Ethics Committee | SingHealth Centralised Institutional Review Board |
| Was the Declaration of Helsinki followed? | Yes |
| Was informed consent obtained from the patients? | No |