

EARLY EXPERIENCE WITH THE GYNECARE TVT OBTURATOR SYSTEM (TVT-O) IN TREATING WOMEN STRESS URINARY INCONTINENCE

Hypothesis / aims of study

The Tension-free vaginal tape (TVT) has become the gold standard in treating female stress urinary incontinence. But with a 3% incidence of bladder perforation, and other major complications like neurovascular injury, pelvic haematoma, or bowel injury, there was a demand for a safer midurethral sling system. This study was performed to evaluate the early complication rates of the TVT Obturator system (TVT-O).

Study design, materials and methods

A retrospective analysis of 98 women who had TVT-O continence surgery in our institution, between 12 May 2004 and 11 February 2005 was done. Using de Leval's insertion method, TVT-O was performed with or without concomitant surgeries like vaginal hysterectomy, pelvic floor repair, sacrospinous ligament fixation (SSF) for associated pelvic organ prolapse. An indwelling urinary catheter was inserted post-operatively and removed on the first post-operative day for bladder training. The patient was discharged once postvoid residual was less than 150mL. The peri-operative and post-operative and early post-operative complications at 1 month and 6 months were reviewed.

Results

The mean patient age was 53.7 years (SD: \pm 10.9 years), mean BMI was 25.7 (SD: + 4.1) and nearly half (45.9%) of the patients were menopausal. Only 13.7% of patients had previous continence surgery. Twelve (12.6%) patients had low urethral pressure profiles (Upp). The majority of cases (57%) were done under general anaesthesia. The mean operative time was 39 minutes (SD: \pm 32 min), mean blood loss was 64 ml (SD: \pm 91 ml). Mean hospital stay was 2.5 days (SD: \pm 1.2 days), and mean time of indwelling catheter was 1.3 days (SD: \pm 1.1 days). Mean residual urine volumes were 112 ml (SD: \pm 152 ml).

Perioperative complications included 3 cases (3%) of groin wound bleeding, 1 case (1%) of bladder abrasion, and 1 case (1%) of labial haematoma. There were two cases (2%) of intraperitoneal bleeding after vaginal hysterectomy, requiring reoperation and ligation of a bleeding pedicle. Three (4%) cases of high residual urine were successfully weaned off catheter within a week. The readmission rate was 2%, with two patient diagnosed with acute retention of urine (ARU). One patient was successfully weaned off catheter after two days; the other patient required the TVT-O tape to be loosened after 1 week of high residual urine volumes. The complications of groin haematoma (12%), pain (22%), and backache (1%) resolved after 2 days (SD: \pm 5 days). There were 84 patients reviewed at 1-month follow-up. Only 3 (3.6%) patient had subjective complaints of stress urinary incontinence, but none were demonstrable on examination. Three (3.6%) patients had urge/urge incontinence, and were managed with anti-cholinergic therapy. Three (3.6%) patients had decreased urinary flow, but all three had residual urine volumes less than 100 ml. There were 7 (8.3%) patients who still complained of thigh/wound pain. The 6 months subjective and objective cure and complication rates will be presented.

Interpretation of results

Low complication rate. No bladder perforation.

Concluding message

TVT-O continence surgery with or without concomitant vaginal surgery has low complication rates, and most resolve with conservative management. This has been consistent with studies reported in the worldwide literature. Larger cohort studies, and randomised controlled trials involving TVT, TVT-O and other midurethral sling systems are required to ascertain which system is the best.