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INITIAL RESULTS OF #17 HAGAR DILATOR AS A RELIABLE MEAN TO ADJUST TENSION DURING TENSION-FREE VAGINAL TAPE (TVT) PROCEDURE

Aims of Study

TVT procedure for stress urinary incontinence (SUI) has gained widespread acceptance (1). The technique described originally by Ulmsten involves initial tension adjustment of the tape using a spacer instrument between the vaginal loop of the tape and the urethra (such as long Mayo scissors) (2). Final calibration of the tension is further accomplished by the stress test, where the patient is asked to cough in order to adjust the tension of the tape according to the presence of leakage per urethra. The latter part of the procedure requires the patient to be awake and able to effectively elevate intra-abdominal pressures by coughing. Although this method has been proven to be efficacious, the necessity to perform the surgery with the patient awake may be impractical in a subgroup of patients. Patients with complex pelvic floor prolapse, anxiety or simply personal preferences may require, or request that the surgery be performed under general anesthesia. Therefore, we sought to evaluate whether the use of a particular spacer, the #17 Hagar dilator, while disregarding the recommended cough stress test, would lead to the same results in terms of cure of SUI and complication associated with urinary retention.

Methods

Between January 2002 and February 2003, 45 patients underwent TVT procedure. Thirty-two of them were available for follow-up. Mean age was 63 years (range 23 to 87). Ten patients (31%) had combined prolapse repair (grade III or IV cystocele) and TVT, all of them exhibiting SUI in association with their severe cystocele. Twenty-two patients (69%) had isolated TVT placement for SUI. General anesthesia was elected in 25 patients (78%) and local or spinal anesthesia in 7 (22%). Placement of the TVT was carried out according to the technique originally described by Ulmsten (2). With combined pelvic prolapse repair, the tape was inserted at the beginning of the procedure. The #17 Hagar dilator was placed between the vaginal loop of the tape and the urethra. The suprapubic ends of the tape were then pulled until the vaginal portion of the tape was in contact with the dilator. The plastic sheet was removed with the dilator in place. The mid-sagital vaginal wall incision was then closed over the TVT tape with close apposition of the edges.

Results

Mean follow-up was 4 months (1-13 months). Eighty-eight percent of the patients were free of SUI after surgery. In the 4 patients who had persistent SUI, 3 went from severe leakage with minimal activity to minimal leakage with strenuous activity. Eighteen patients who did not (100%) have pelvic prolapse repair voided in less than 4 hours and were discharged home the same day. 3 patients kept the urethral catheter for 2 days because of intraoperative bladder perforation. They voided without difficulty after catheter removal. All eleven patients with associated pelvic floor prolapse repair and 1 for endoanal surgery voided during the first voiding trial. No patients presented with urinary retention. Two patients (6.2%) developed obstructive symptoms, without objective documentation of obstruction. They underwent transvaginal urethrolysis 1 month after the initial procedure. Mean post-void residual preoperatively was 64.9 ml compared to 14.9 ml postoperatively.

Conclusions

The #17 Hagar dilator is a reliable and safe method to adjust the tension during tension-free vaginal tape procedure done under general or local anesthesia, combined or not with transvaginal repair of pelvic floor prolapse. Further follow-up and investigation is needed to evaluate the long-term outcome of this technique.

References

1- Klutke JJ, Klutke CG,: Tension-Free Vaginal Tape Procedure. AUA update series, vol XXII (10), 2003

2- Ulmsten U., Henriksson L., Johnson P., et al: An ambulatory surgical procedure under local anaesthesia for treatment of female urinary incontinence. Int Urogynecol J **7:** 81, 1996