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Title: TENSION FREE VAGINAL TAPE (TVT) IN THE ELDERLY

Aims of the study:

After having successfully performed the TVT procedure at first on women with primary stress incontinence, later on cases with recurrent disease, we now wanted to try the method in the elderly. The high percentage of mixed incontinence and detrusor hypocontractility in addition to the difficult symptom assessment always made this group problematic to operate on. The low morbidity and the use of lokal anaesthesia seems to make the TVT procedure ideal for the elderly. In this study we wanted to evaluate the efficacy of the method in our elderly clients.

Methods:

Between March 1999 and Dezember 2000 45 women, mean age 80 years (range 75-85) suffering from stress incontinence were included in the study (criteria: born before 1926). All women had urodynamic assessment, cystoscopy and lateral cystography. Only 15 women (33%) showed genuine stress incontinence, the remaining 30 patients (67%) were also bothered by urgency with urge incontinence episodes. Mean capacity was 398cc, low compliance bladder was ruled out. Prooved by cystography and Urethra Pressure Profile (UPP) 10% showed an intrinsic sphincter deficiency (ISD), 76% showed a moderate and 14% an high bladder neck mobility as cause for the stress incontinence. A moderate cystocele was registered in 42% and a marked one in 4%. As an additional operation 1vaginal plasty and one urethrotomy was caried out. 26 patients (58%) had had previous surgery, 6 of them incontinence operations. In 86% the TVT procedure was caried out in lokal-, in 12% in spinal- and in 2% in general anesthesia. The average operation time was 38 minutes (compared to 33 minutes in our younger clients). In 32 women (71%) the bladder was drained by suprapubic tube and in 13 women (31%) by indwelling katheter. This strategy was caried out to have a better control of the residual urine, which we expected to be a bigger problem in the elderly than in our younger clients, where we only have performed a cystomy in 15%. The average flow rate was 23,3ml/sec (compared to 28.8ml/sec in our younger patients). Patients were reviewed with Quality of life assessment, stresstest, Uroflow and residual urine after 3 and 12 months, then yearly. The mean follow-up time was 14 months. Some data were retrospectively compared with a group of 112 patients with an average age of 60 years.

Results :

As complications 2 bladder perforations (4%), but no heavy bleeding or relevant haematoma occurred. Only 2 patients (5%) claimed minimal to moderate suprapubic pain at the 3 months control. The mean time untill normal micturition without residual urine was 2,5 days, compared to 1,6 days in the younger clients. Furthermore the sling had to be opened in 7% (3 patients) in the elderly group, but only in 3% (3 patients)

in the younger group. The average maximum flow rate was reduced from 23,3ml/sec to 17,8ml/sec. 41 women (90%) showed a complete negative stress test, in 4 cases (10%) there was a minimal leakage but only 32 women (72%) also were completely satisfied with the result (10 women were largely contented and 3 discontented). The cause is the high incidence of additional urge incontinence in the elderly. Of the 30 women showing these symptoms, 16 (54%) were completely cured, 9 (30%) improved and 5 (16%) unchanged. On the other hand 3 women (7%) developed mild de novo urge symptoms. The mean preoperative urethral maximum closure pressure did not turn out to be a predictive factor for the outcome. For example became all 6 patients with a maximum urethral closure pressure below 20cmH₂O completely dry. Lacking bladder neck mobility influenced the outcome only in prolonging the time to residual urine free micturition. As far as the preoperations are concerned neither vaginal plasties, hysterectomies nor incontinence operation changed the success rate.

Conclusions:

In our experience the TVT procedure is a minimal invasive and safe method for treating stress incontinence in the elderly. Due to a weaker detrusor muscle the time to normal micturition was extended, and the amount of sling opening was doubled compared to our younger patients. Therefore we suggest bladder drainage by cystostomie to avoid retention problems. The 90% cure rate according to the stress test does not differ much to the 95% of our younger patients. For sure the more common additional urge decreased the subjective outcome in our elderly patients. But we saw a good effect of the TVT procedure also on the concomitant urge symptoms (84% improvement). Altogether we think that the TVT procedure should also be carried out in the elderly. Stress incontinence should be the main complaint, though the common concomitant urge symptoms also mostly improve. Important is an accurate clarification about the outcome possibilities concerning the urge symptoms and the possible prolonged time until normal micturition. More studies and a longer follow-up are requested.

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