

## 5 YEARS EXPERIENCE WITH A COST-EFFECTIVE MODIFICATION OF THE TENSION-FREE VAGINAL SLING: TECHNIQUE AND RESULTS

### Hypothesis / aims of study

The tension-free vaginal tape has proven to be effective for management of female stress incontinence. However, the treatment costs are high, amounting to about 500 € per case. Moreover, there have been reports on significant – even fatal - complications during the placement of the metal trocars from the vagina to the suprapubic skin. This paper shows a modification of the TVT-technique aiming at a higher safety and significant reduction of costs.

### Study design, materials and methods

We use a Prolene-mesh, that is cut into stripes of 2 cm with a length of 30 cm. On both side of the stripe a Prolene-suture is placed. After the standard horizontal incision in the vagina with exposure of the paraurethral space and two skin incisions superior to the symphysis, a Suture-passer (Boston Scientific) or Stamey-needle is used to prepare the canal between the two incisions on either side of the urethra similar to previous techniques of bladder neck suspensions. Now each suture is tied to the needle and pulled up to the skin incision thereby placing the Prolene-sling paraurethally. The final adjustment of the sling is made after Valsalva-tests with the filled bladder. Then the overlapping mesh is cut at the skin level and the wounds are closed. Total costs include investment of a Stamey-needle (40 €) and 13 € per case for disposables (mesh, suture).

### Results

Until November 2000, we treated 48 patients (Follow up of 45 patients). We observed 4 no significant bladder perforations, requiring intraoperative replacement of the needle and one urethral lesion (no placement of the sling). In 1 patient the sling has to be removed partially due to woundhealing disorder of the vagina after 10 months. After a median follow-up of 35 (4-52) months, 31 (68,9 %) women are continent, 6 (13,3 %) improved and 7 (15,5 %) patients are suffering from incontinence.

### Interpretation of results

11 (24,4 %) patients complaining of subjective problems (incontinence: n=7, urine retention: n=1, urge symptoms: n=6). 2 out of 7 patients with incontinence the mainly reason is a new urge component. TVT-techniques should be reserved for well-selected cases of stress incontinence and presuppose exact preoperative diagnostic.

### Concluding message

Our modification proved to be a safer alternative by antegrade creation of the retropubic canal with a finer instrument, significantly cost-effective with equivalent efficacy to the literature.