

OWN EXPERIENCES IN SUI TREATMENT WITH DIFFERENT TYPES – 25 YEARS.

Hypothesis / aims of study

Stress urinary incontinence (SUI) is a result of downward displacement of the bladder neck and urethra due to flaccidity of the supporting tissues and intrinsic urethral sphincteric deficiency. Childbirth, overweight, hormonal deficiencies, decreased content of collagen, especially of type I and III and too low collagen I to collagen III ratio, as well as weakening of the pubourethral fascia, are the contributing factors. Among the numerous methods of treatment used in SUI according to the stage of the disease, procedures involving suspension of the urethra are the most frequent ones. The currently used methods include suspension of the urethra or bladder neck from the transvaginal and retropubic approach, as well as sling type suspension procedures. The aim of the study was to assess the effectiveness of urethral suspension procedures utilizing supporting different prolene tapes in treatment of stress urinary incontinence in women.

Study design, materials and methods

From 1985 to the end of 2010, 320 urethral suspension procedures with different tapes /Zoedler, Tricomed, TVT-S, Mini-Arc, A-just/ treating urinary incontinence in women were performed in the Clinic. The patients' age ranged from 36 to 85, with the mean of 62 years. The diagnosis of SUI was established on the basis of anamnesis – questionnaire, gynecological examination, urinary tract ultrasound, urodynamic examination. On the basis of the above examinations, the patients were divided into 3 groups: Group I with primary SUI – 193(60.3%) women, group II with recurrent SUI - 65(20.3%), group III with mixed type UI (urge + stress) - 62.(19.4%). Pre-operative assessment of the patients included also BMI and posterior vesico-urethral angle by transvaginal ultrasound. Obese patients constituted as many as 53.3% of the group, overweight – 33.3%, and only 13.3% had normal weight. The posterior vesico-urethral angle ranged from 118° to 146°, with the mean value of 127°. The number of past deliveries in surgically treated patients ranged from 0 to 6 (mean 2.5).

Zoedler-Tricomed tapes are the dacrone tapes which are put on during the intravaginal, retropubic procedure. They are sutured over the fascia of musculus rectus. They were implemented before the integral theory of Ulmstem and Petros. Since 2001 the most common tape used in SUI treatment was the IVS tape. The surgical method utilizing IVS involves suspension of the proximal urethral segment by means of flexible self-supporting prolene tape, inserted with a special guiding needle transvaginally, behind the pubic symphysis, through the pelvic peritoneum, retropubic space, through the layers outwards to the skin. The tape is left in place and its ends are cut off below the skin surface. Minisilng such as TVT S, A-just and Mini-arc have been using in our Clinic since 2006. The common denominator of those tapes are the length and the material and difference is another point of the sut up. During the post-operative period, connective tissue growing into the tapes forms a natural support for the urethra. The average duration of that procedures is 60 - 20 min., and of hospitalization 6-2 days. The patients were followed up post-operatively for 3 to 60 months.

Results

The procedures were well-tolerated by all patients, with no significant intra-operative complications observed. Full successful cure were observed in 81% of cases after Zoedler-Tricomed operations, in 85% of cases after IVS procedure and after 86% of operations were Mini silngs were used IVS tape. In 8% of women who udergo Zoedelr-Tricomed procedure intraoperative complications such as lesion on urinary bladder were observed. In five /6.1%/cases, the urinary bladder was injured while the needle guiding the tape IVS was being inserted behind the pubic symphysis, which required placement of the Foley's catheter for a few days and prolonged the period of hospitalization. There were no single case of urinary bladder lesion after Mini Slings operations.

The postoperative complications are : urine retention after micturition (10%), erosion of vaginal wall, overactivity of the detrusor muscle (15%) and in case of Zoedler-Tricomed operation migration of the tape into bladder .

In IVS procedure no urine retention after micturition was observed, and the symptoms of urgency, which regressed completely or were reduced within 4 weeks after the procedure, were noted in 13 cases (15.8%). In 5% of cases of mini-sling procedures there was noticed uriner retention and in 10% OAB symptoms.

Special attention should be paid to group II of the patients (recurrent incontinence), in which 100% cure rate was obtained in patients previously treated by gynaecologists with other (non-sling type) surgical methods. In group III (mixed type incontinence), the operated patients required additional administration of anticholinergic drugs because of urgency.

Concluding message

All methods have high effectiveness /81%-86%/, Intraoperative complications were decreased with higer experience of the surgeon and the introducing lower invasive procedures. Postoperative complications depeneded from the material which were used. Urinary retention after micturition and OAB symptoms were independent from the set which were used.

The obtained results allow to conclude that recent method is a low-invasive, relatively safe and effective procedure in the treatment of SUI, even in case of recurrences.

25 years of experiences in SUI treatment allows to proper evaluation of those procedures which is leading to improvement of the treatment .

Specify source of funding or grant	NO
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	treatment SUI by officiaal types
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes

