#425 Treatment assessment following mid-urethral tape revision.

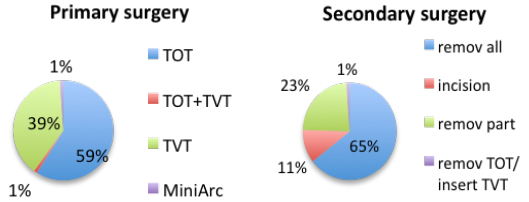
Pawlaczyk A[1], Wąż P[2], Matuszewski M[1]
1. Department of Urology, Medical University of Gdańsk, Poland,
2. Department of Nuclear Medicine, Medical University of Gdansk, Poland.

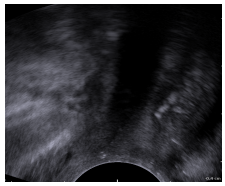
Hypothesis / aims of study

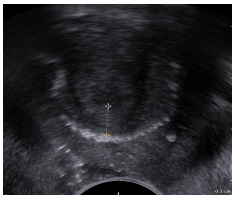
Surgical treatment using the mid-urethral tape has become a gold standard in the treatment of stress urinary incontinence in women [1]. Despite the careful development of this method, complications can occur. The most common post-operative problems are voiding dysfunction and overactive bladder (OAB). The occurrence of these complications can cause the patient's considerable dissatisfaction with mid-urethral tape procedure [2, 3]. The aim of this study was to investigate the effectiveness of the treatment of lower urinary tract symptoms (LUTS) after tape revision (incision, removing the tape up to 1 cm, or removing all available part of the tape) based on the subjective assessment of patients.

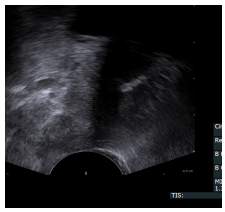
Study design, materials and methods

A group of 90 patients suffering from LUTS after anti – incontinence surgery using a synthetic tension free vaginal tape, was included in this study. 53 (59%) patients after transobturator (TOT), 1 (1,1%) after TOT and retropubic (TVT), 35 (38,9%) after TVT and 1 (1,1%) after miniarc tape as primary surgery. The mean age of patients, who underwent primary mid-urethral tape surgery was 58.2 and tape revision was 64.6. The mean time from primary surgery to our control was 6.8 years and from tape revision to the control – 11.7 months. Before and after the tape revision the patients completed the Urogenital Distress Inventory (UDI-6) short form, a questionnaire of severity of LUTS (pelvic pain, frequency, nocturia, urgency, incontinence, SUI, hesitancy, dysuria, recurrent UTI) ranging from 0 to 3 (0: not at all, 1: slight, 2: moderate, 3: severe complaints). Visual analogue scale (VAS) of subjective assessment of lower urinary tract function ranging from 0 to 100 (0: very bad, 100: perfect function) was also rated. The tape localization and residual volume was assessed by introital ultrasound [3]. We always removed the tape if it was displaced (lower edge above 37.5%of the urethral length) and in the case of voiding disorders with residual volume above 50ml together with recurrent urinary tract infections (UTI). We compared the subjective assessments of patients for LUT complaints (pelvic pain, frequency, nocturia, urgency, incontinence, SUI, hesitancy, dysuria, post- void residuals, recurrent UTI, UDI-6, and VAS of subjective assessment of LUT function) before and after the tape revision. The Wilcoxon rank sum test was used to compare continuous data. This was a retrospective study with a prospective component.









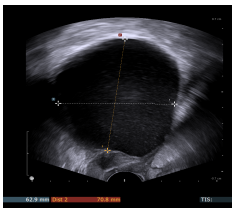


Figure 1: Tape visualisation in mediosagittal plane.

Figure 2: Tape visualisation in transverse plane.

Characteristics of patients	Mean	Median
Age at the day of primary operation/ secondary operation	58.2/64.6 y.	58/65 y.
BMI at the seconadary operation	28.4	28.0
Time from the primary operation / secondary operation to the time of follow-up	6.8/0.97 y.	6/0.375 y.
Number of patients with the vaginal/ bladder erosion	8/1	
% of patients with stress urinary incontinence as an accompanying symptom	35.8%	

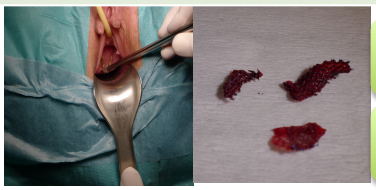


Figure 3: Surgical technique of removing a midurethral tape.

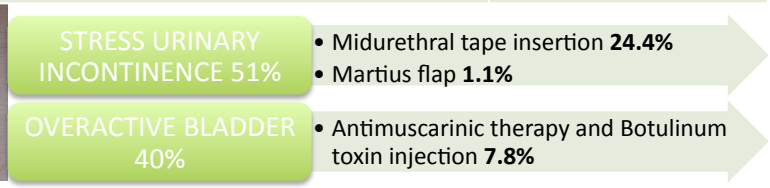


Figure 4: Recurrent or persistent SUI and OAB following tape revision and their treatment.

Results

All analysed symptoms improved after tape revision, except for SUI. Also the patient satisfaction with the lower urinary tract function rated on the VAS after the tape revision was better. The data were statistically significant (significance level $\alpha = 0.05$). The tape revision procedure was not associated with any serious complications.

Interpretation of results

Patients after tape revision surgery assessed the quality of life as better than before the secondary surgery. Despite the fact that 51% of patients relapsed from stress urinary incontinence, only 24.4% decided to undergo surgery again using polypropylene tape. Martius flap interposition was performed in 1 patient.
OAB was persistent in 40% of patients, but only 7.8% needed pharmacological treatment.

Concluding message

A mid-urethral polypropylene tape should be revised if bothersome symptoms appeared after the surgery.