

## CLINICAL STUDY OF LONG-TERM EFFICACY OF TENSION-FREE VAGINAL TAPE IN THE MANAGEMENT OF FEMALE URODYNAMIC STRESS URINARY INCONTINENCE: RESULTS OF 5-, 7- AND 10-YEAR FOLLOW UP.

### Hypothesis / aims of study

Nowadays, the management of female urodynamic stress urinary incontinence is based on a wide spectrum of minimally invasive surgical techniques, among which the role of the classical retropubic tension-free vaginal tape (TVT), as it was first described in 1996, remains major. The aim of this study was to examine the long-term efficacy and complications of tension-free vaginal tape (TVT) placement for the management of female urodynamic stress urinary incontinence.

### Study design, materials and methods

This was a prospective cohort clinical study approved by the Hospital's Ethics Committee. The study included women who underwent TVT placement in our Department and fulfilled the following criteria: i. diagnosis after clinical examination and preoperative urodynamic study of urodynamic stress urinary incontinence, ii. absence of synchronous cystocele higher than grade I, and iii. no history of previous surgical procedures at the anterior vaginal wall. Surgical procedure was performed by the same experienced Urogynecology team in all cases. Written informed consent was obtained by all patients. Evaluation of the therapeutic outcome was made by clinical examination and urodynamic study at five, seven and ten years after the initial procedure. Cure, improvement and failure rates were estimated.

### Results

The study group consisted of 65 women with confirmed diagnosis of urodynamic stress urinary incontinence who underwent TVT placement without synchronous anterior repair. No severe intraoperative complications occurred. Evaluation of the therapeutic outcome at 5-year follow up showed cure rate of 83%, while the failure rate was estimated at 9.4%. At 7-year follow up, the long-term efficacy rate was 80% and the failure rate was 13.5%. De novo detrusor overactivity was seen in 9.4% and 11.4% of patients at 5- and 7-year follow up, respectively. At 10-year postoperative follow up, the objective cure rate was 76%, while the failure rate reached 18%.

### Interpretation of results

It seems that the TVT method presents a high efficacy at the long-term postoperative period of ten years. The observed decrease in cure rate during the follow up period is clinically acceptable and associated with anatomical and pathophysiological alterations. It remains one of the basic therapeutic approaches for the management of female urodynamic stress urinary incontinence. It is associated with a low incidence of intraoperative and postoperative major complications. However, cystoscopy is suggested after TVT placement during the same surgical procedure.

### Concluding message

The TVT method is an effective and safe minimally invasive surgical technique for the management of urodynamic stress urinary incontinence in women without significant cystocele in the long-term follow up.

### Disclosures

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