

Success and Satisfaction of Tension-Free Vaginal Tape Surgery in Females with Stress Urinary Incontinence: Results at 17 years of Follow-Up

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BACKGROUND

Tension-free Vaginal Tape (TVT) procedure is proved to be a safe and effective surgical method for stress urinary incontinence (SUI).

OBJECTIVES

The present study aims to evaluate the surgical outcomes at 17 years after the TVT surgery which was performed to manage females with SUI.

MATERIALS & METHODS

- Among 110 women with SUI who underwent the TVT procedure between March 1999 and December 2000, 51 patients were followed up for at least 17 years postoperatively.
- Preoperative evaluation of the patients was performed with history taking, physical examinations, one-hour pad tests, urine analysis, urine cultures and complete multichannel urodynamic studies.
- Long-term evaluations were performed via questionnaires on the durability of the surgical outcome and the patients' satisfaction with the procedure. All the patients were asked about their voiding symptoms as well as any recurrence by conducting detailed telephone interviews.

RESULTS

Table 1. Patients' preoperative and postoperative clinical data.

n = 51		
Mean age (years)	62.42 ± 16.21 (46–80)	- The mean follow-up period was 207.62 ± 8.46 months.
Mean follow-up period (months)	207.62 ± 8.46 (204–210)	
Mean symptom period (months)	83.23 ± 98.25 (2–280)	
Mean body mass index (kg/m ²)	24.08 ± 2.41	
Mean numbers of delivery	2.71 ± 1.54	
Grade of incontinence		- Of the 51 patients who were followed up for at least 17 years, the patients were classified according to their symptom grades; grade I (n=13, 25.49%), grade II (n=28, 54.90%) and grade III (n=10, 19.61%).
I (n)	13 (25.49%)	
II (n)	28 (54.90%)	
III (n)	10 (19.61%)	- The TVT procedure remained successful in 42 patients (82.35%): SUI was remained cured in 28 patients (54.90%) and improved in 14 patients (27.45%) while recurred incontinence was observed in 9 patients (17.65%).
Pre-operative urodynamic parameters		
Voided volume (mL)	232.65 ± 164.27	
Maximal flow rate (mL/sec)	30.25 ± 9.14	
Residual volume (mL)	20.27 ± 15.20	
Maximal cystometric capacity (mL)	432.85 ± 101.28	- According to the telephone interviews, 26 patients (50.98%) were very satisfied and 16 patients (31.37%) were satisfied with the TVT procedure.
Maximal detrusor pressure (cmH ₂ O)	26.78 ± 12.29	
Surgical success rate		- However, 6 (11.76%) and 3 (5.88%) patients answered 'tolerable' and 'dissatisfied', respectively, and all of these patients had recurred SUI.
Cured (n)	28 (54.90%)	
Improved (n)	14 (27.45%)	
Incontinence recurrence (n)	9 (17.65%)	- Among the investigated patients, no serious or long-term complications related to the procedure were observed
Satisfactory status		
Very satisfied	26 (50.98%)	
Satisfied	16 (31.37%)	
Tolerable	6 (11.76%)	
Dissatisfied	3 (5.88%)	

CONCLUSION

- The TVT surgery is an effective treatment for stress urinary incontinence, with long-term durability of continence and minimal complications related to the surgery.