

# Inside-out transobturator vaginal tape (TVT-O): One-year results of a prospective study



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## AIM OF THE STUDY

To prospectively evaluate the efficacy of the transobturator inside-out TVT-O procedure for the treatment of female stress urinary incontinence (SUI)

## STUDY DESIGN, MATERIALS AND METHODS

- **Prospective study** with enrollment from 03/2003 through 10/2003
- **Inclusion criteria:**
  - age > 25 and < 85 years,
  - clinically demonstrated SUI with positive stress test,
  - and maximum cystometric capacity ≥ 300 mL
- **Exclusion criteria:**
  - post-void residual volume (PVR) ≥ 100 cc,
  - detrusor overactivity or acontractility,
  - pregnancy,
  - neurological pathology,
  - or active urinary or vaginal infection
- **Preoperative evaluation:** history, physical examination including a stress test, multichannel urodynamics, urine analysis, cystoscopy, symptom scale MUH questionnaire, urinary incontinence visual analog scoring, and QoL Ditrovie questionnaire
- **Chart review** by 1 physician not associated with the procedure
- **Outpatient follow-up** at 1, 6, and 12 months, and then every year thereafter
- **Postoperative evaluation:** history, physical examination including a stress test, uroflowmetry and PVR measurement, urine analysis, symptom scale MUH questionnaire, urinary incontinence visual analog scoring, and QoL Ditrovie questionnaire

## RESULTS

### 1. Patients

- 83 consecutive pts enrolled with mean age = 60.9 years (34 - 83)
- 46 pts had undergone previous pelvic or incontinence surgery
- 78 pts suffered from SUI while 5 pts did not complain of SUI but had clinical evidence of SUI after reduction of pelvic organ prolapse
- Maximal urethral closure pressure < 30 cm H<sub>2</sub>O in 9 pts
- TVT-O associated with POP cure (performed before TVT-O) in 15 pts
- Follow-up time ≥ 12 months in 80/83 pts (mean = 13.6)

### 3. Stress Urinary Incontinence

SUI	Postoperative rates (%)
<b>Cured</b>	<b>68 (85,0%)</b>
<b>Improved</b>	<b>9 (11,2%)</b>
<b>Failure</b>	<b>3 (3,8%)</b>

Cured: disappearance of SUI, on the basis of both symptom scale scoring and physical examination  
Improvement: at least a 50% decrease in SUI symptoms based on the questionnaire's evaluation

### 5. Urgency / Urge Incontinence

- Analysis of the MUH questionnaire results revealed that
- among the 46 pts who did not complain of any urgency before the operation, 6 (13.0%) developed *de novo* urgency, with 1 of them requiring tape sectioning because of obstruction-associated urge incontinence
  - among the 34 pts with preoperative urge symptoms, 20 of them reported disappearance of urgency after the procedure while urge symptoms were unchanged in the remaining 14 pts

### 2. Peri- and Post-Operative Complications

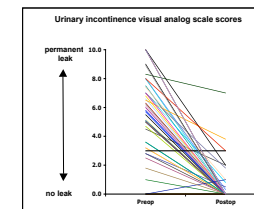
**Significant bleeding**  
**Vaginal, urethra, or bladder perforation**  
**Neurological, vascular or digestive complication**  
**Fistula, vaginal or urethral erosion, tape rejection**  
**Persistent pain**

→ 0%

### 4. Obstruction / Retention

- Objective findings:
  - PVR < 100 cc in 75 (93,7%) pts
  - Max flow rate ≥ 10 mL/sec in 63 (78,7%) pts
  - 2 immediate tape release procedures for complete retention
  - Tape sectioning in 2 pts (chronic retention and/or urgency associated with obstruction) at 4 and 7 months after the
- Analysis of MUH questionnaire data showed:
  - Appearance or worsening of LUTS in 3 pts (2 tapes sectioned)
  - No change or decrease (associated POP cure) in all others

### 6. Quality of Life Assessment



Analysis of the urinary incontinence visual analog and QoL (Ditrovie) scale scores demonstrated that the majority of patients reported disappearance of urinary leakage together with significant improvement of their QoL

## CONCLUSION

The one-year results of this prospective study suggest that TVT-O is associated with a low incidence of peri- and post-operative complications and high objective and subjective SUI cure rates