

TENSION-FREE VAGINAL TAPE IN THE ELDERLY: IS IT A SAFE PROCEDURE?**Hypothesis / aims of study**

Stress urinary incontinence (SUI) is very common among elderly women. However, age-related medical conditions as well as impaired bladder function may adversely affect treatment outcomes. We therefore performed a prospective study to examine the incidence of surgical complications and medium-term outcome results of tension-free vaginal tape (TVT) surgery in elderly stress-incontinent women compared to younger women.

Study design, materials and methods

Elderly patients were defined as being over 70 years old. 123 consecutive elderly patients (mean age 75; range: 70-86) and 208 younger patients (mean age 58; range: 35-69) who underwent TVT were prospectively studied. 84% of the elderly patients and 64% of the younger patients underwent the TVT procedure with genitourinary prolapse repair. Postoperatively the patients were scheduled for evaluation at 1, 3, 6, 12 months, and annually thereafter. All underwent urodynamics at 3-6 months postoperatively. Main outcome measures were perioperative morbidity, postoperative SUI, persistent or de novo urge incontinence and voiding dysfunction.

Results

The mean follow-up period was 30±12 months (range: 12-67 months). Comparison of *TVT-related* complications and medium-term outcome results is presented in the table below. Incidence of *TVT-related* complications was similar in both groups, except for significantly less bladder perforation cases among elderly patients. However, some *age-related* complications were noted among elderly patients: two cases of pulmonary embolism, one case of severe pneumonia, and one other case of cardiac arrhythmia. The incidence of persistent postoperative SUI and persistent urge incontinence was similar in both age groups. However, de novo urge incontinence was significantly more common among elderly patients (18% versus 4%, $P<0.05$). Two elderly patients and three younger patients had postoperative pressure-flow studies suggesting bladder outlet obstruction.

TVT-related complications and medium-term outcome results

Mean±SD or N (%)	Elderly N=123	Young N=208
Age	(years) 74.9±3.8	57.8±7.9
Hospital stay	(days) 5.8±3.5	4.2±2.5
Delayed spontaneous voiding	(>7days) 3 (2%)	7 (3%)
Postoperative fever	15 (12%)	19 (9%)
Bladder perforation	2 (1.6%)	14 (6.7%)
Vaginal erosion	3 (2.4%)	3 (1.4%)
Persistent SUI	9 (7%)	12 (6%)
Persistent urge incontinence	21/28 (75%)	26/34 (76%)
De novo urge incontinence	17/95 (18%)	7/174 (4%)
Bladder outlet obstruction	2 (1.6%)	3 (1.4%)

Interpretation of results

TVT in elderly patients is a safe procedure. It is usually performed with prolapse repair. The combined surgical intervention is associated with good cure rates, however, there is age-related morbidity and elderly patients should be informed accordingly.