

TENSION-FREE VAGINAL TAPE: ANALYSIS OF OUTCOMES AND COMPLICATIONS IN 180 STRESS INCONTINENT WOMEN.

Aims of Study

The aim of this study was to evaluate the safety and efficacy of tension-free vaginal tape (TVT) for the surgical treatment of female stress incontinence either as a sole procedure or as part of other reconstructive pelvic floor surgery.

Methods

Two hundred and twenty women urodynamics stress incontinence (USI) underwent the TVT procedure with or without other pelvic floor surgery were identified using hospital computer system. Invitation letters were sent out to patients to attend a formal assessment clinic. Structured interviews were conducted using a formulated questionnaire looking at the complications and outcome of the TVT procedure.

Women were grouped according to whether the TVT was performed alone (Group I) or as part of other pelvic floor surgery (Group II).

Although all women had USI the majority of women had mixed urinary symptoms. 72.5% of group I and 65% of group II had pure USI. 27.5% of group I and 35% of group II had USI with other urodynamics diagnosis (Detrusor overactivity, Sensory urgency and or voiding dysfunction).

Results

One hundred and eighty patients with mean age 57 years (range 31-83) were interviewed (81%). One hundred and twenty patients with mean age 56.9 years (range 32-74) had TVT with median follow up time of 23 months (range 6-49). Sixty patients with mean age 59 years (range 35-81) had TVT as part of other pelvic floor surgery, with median follow up time of 20 months (range 6-45).

Table 1: Outcome of TVT only (Group I)

Outcome n(%)	Cured	Improved	Same	Worse
Symptom				
SUI	87(72.5%)	21(17.5%)	7(6%)	5(4%)
Frequency	51(42.5%)	39(32%)	26(22%)	4(3%)
Urgency	45(37%)	42(35%)	27(22.5%)	6(5%)
Urge incontinence	54(45%)	36(30%)	21(17.5%)	9(7.5%)
Nocturia	36(30%)	35(29%)	40(33%)	9(7.5%)

Table 2: Outcome of TVT with other pelvic floor surgery (Group II)

Outcome n(%)	Cured	Improved	Same	Worse
Symptom				
SUI	42(70%)	15(25%)	3(5%)	0(0%)
Frequency	24(40%)	24(40%)	6(10%)	6(10%)
Urgency	27(45%)	20(33%)	6(10%)	7(12%)
Urge incontinence	24(40%)	16(27%)	14(23%)	6(10%)
Nocturia	24(40%)	18(30%)	13(22%)	5(8%)

Table 3: Intra- and postoperative complications

Group Complication	T VT	TVT with other pelvic surgery
Bladder perforation	1(0.8%)	7(11.6%)
Voiding difficulties	20(16.5%)	0(0%)
Division of tape	2(1.6%)	0(0%)
Cystitis	3(2.5%)	8(13%)

Table 4: Long term complications

Group Complication	T VT	TVT with other pelvic surgery
Voiding difficulties(minor)	22(18%)	8(13.3%)
Tape erosion (vaginal)	2(1.6%)	1(1.6%)
Bladder Pain	4(3.2%)	2(3.2%)
Urgency	8(6.4%)	3(5%)
Urge Incontinence	3(2.5%)	0(0%)

Conclusions

We conclude that the TVT procedure is effective treatment of USI and could be combined other pelvic floor surgical procedures without jeopardising outcome. It also shows that major complications are unusual and although minor voiding difficulties are common it did not cause the patients any concern.

Although all the patients' primary complaint was SUI, the majority had mixed symptoms of frequency, urgency, urge incontinence, and/or nocturia, those patients with mixed symptoms showed a strong tendency to improve but deterioration occurred in 3-12% of cases.

A global approach of pelvic floor disorders is now recommended to improve results of the USI treatment and TVT should be considered as a component of the USI treatment and inserted at the end of a one step procedure correcting the various associated pelvic floor disorders.