

MIXED INCONTINENCE: THE BEST SOLUTION FOR A DIFFICULT TASK

Hypothesis / aims of study

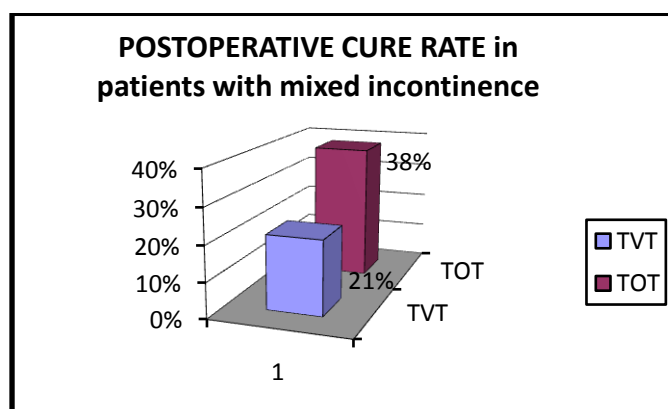
The purpose of the study was to prospectively and randomly compare tension free vaginal tape (TVT) and trans-obturator suburethral tape (TOT) in a sub group of patients with mixed urinary incontinence.

Study design, materials and methods

145 women with mixed incontinence or USI were randomised to TVT (70) or to TOT (75). From this cohort the study was focused on 59 mixed incontinent patients. Patients Inclusion criteria : stress or mixed urinary incontinence, urethral hypermobility. Exclusion criteria: > grade II prolapse in any vaginal compartment. Standard operative techniques were respectively, the Ulmsten and Delorme techniques. Mixed incontinence was present in 26 out of 70 patients in the TVT group and 33 out of 75 in the TOT group. The pre-operative work-up included a detailed case history, the voiding diary, a clinical neurological and urogynaecological examination, the urogenital distress inventory (UDI-6), the impact incontinence quality of life (IIQ-7) questionnaires and visual analogic scale (VAS from 1 to 10) for satisfaction examination), 1-h pad test, urodynamic study (ICS guidelines and ultrasonographic examination for pelvic static study. Postoperative check-ups were planned at 3-6-9-12 months and than annually by clinical examination, questionnaires, flowmetry and PVR. Subjective assessment (calculated by questionnaire scores). Chi square, Fisher test, McNemar tests and Wilcoxon and Mann-Whitney tests were used for the statistical analysis.

Results

	TVT (70)	TOT (75)	P
SUBJECTIVE RESULTS			
• Dry	50 (71%)	56 (77%)	0.8980
• Improved	10 (15%)	11 (18%)	
• Failed	9 (14%)	8 (4.9%)	
OBJECTIVE RESULTS			
• Dry	49 (71%)	57 (76%)	0.5316
• Not dry	19 (29%)	19 (24%)	
EX NOVO STORAGE SYMPTOMS	4 (6%)	8 (11%)	0.2794
EX NOVO VOIDING SYMPTOMS	6 (9%)	5 (7%)	0.6651
STORAGE SYMPTOMS	39	49	0.0293
• Cured	11 (28%)	25 (51%)	
• Improved	3 (8%)	2 (4%)	
• Worsened	5 (13%)	10 (21%)	
• Unchanged	20 (51%)	12 (24%)	
Storage Symptoms In Patients With MIXED INCONTINENCE	26	33	0.0186
• Cured	6 (23%)	19 (58%)	
• Improved	1 (4%)	2 (6%)	
• Worsened	1 (4%)	3 (9%)	
• Unchanged	18 (69%)	9 (27%)	



Interpretation of results

- The preoperative parameters in the two groups do not show statistical differences.
- The perioperative and postoperative complication rates are acceptable in both procedures and not statistically different.
- The subjective (questionnaire score) and objective (Stress test) assessments of results show a good efficacy of both the procedure with no significant differences.
- The more frequent late complication is de novo urgency in both the procedures, slightly better in TVT procedure but not statistically significant
- In patients with pre-existing storage symptoms the cure rate was higher in the TOT group compared to TVT (P = 0.0293)

-Patients with mixed incontinence the TOT group respond significantly better compared to the TVT group.
-The overall cure rate was comparable in both techniques. Comparing the cure rates for storage symptoms within patients with the subgroup of mixed incontinence patients, TOT technique has a significant (P= 0.0186) higher cure rate (58%) than TVT (23%). The postoperative cure rate in patients with mixed incontinence seems to be higher for TOT(38%) compared to TVT(21%).

Concluding message

TOT appears as efficient as TVT as a therapy for female SUI, with minimal complications. Post operative voiding symptoms are not different in the two groups. TOT technique seems to have a better cure rate, compared to TVT, in pre-existing storage symptoms patients and in mixed incontinent patients with statistically significant results.

<i>Specify source of funding or grant</i>	no sources of funding or grant
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	COMITATO ETICO DELLE AZIENDE SANITARIE DELL'UMBRIA DI PERUGIA
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes