

TRANS-OBTURATOR TAPE T.O.T.®: RESULTS ON CONTINENCE WITH A ONE YEAR MINIMUM FOLLOW-UP

Aim of Study

The T.O.T.® technique is a new, simple and mini-invasive treatment for female stress urinary incontinence (1). It seems to be a reliable alternative to the TVT procedure. The advantage of the T.O.T.® is to avoid the risks related to the path into the retropubic space. This study presents the results of the implantation of T.O.T.® on continence with a minimum of one year follow-up.

Methods

292 consecutive patients with Stress Urinary Incontinence were enrolled by 9 centres in a prospective tracker study from November 2001 to January 2004. Within this population, 141 patients were having at least one year follow-up.

The pre and post-operative evaluation included the medical history, uro-gynaecologic examination, urodynamics, a cough stress test, a Marshall Test, and the assessment of post-operative efficacy and safety at 1, 6, 12, 18 and 24 months. The pre-operative urodynamic investigation consisted in a cystometry, urethral pressure profiles and urine flow measurements. Peri-operative complications were also recorded on the case report form.

71/292 (24.3%) patients suffered from pure stress incontinence, 24/292 (8.2%) patients with stress incontinence reported OAB dry symptoms, and 36/292 (12.3%) patients had mixed incontinence (combining stress incontinence and OAB wet). 78/141 patients (55%) were post-menopause. 24/141 patients (17%) were previously operated for incontinence as described in table 1.

Table1

	N =24
Burch	14
Marshall-Marchetti	1
TVT	7
Other	2

Urethral closure pressure was inferior to 20 cm of water in 5 patients.

T.O.T.® (Uratape® and Obtape®, non elastic polypropylene tapes) was combined with other procedures in 21 patients. 89 patients were operated on general anaesthesia, 48 on spinal and 3 on local anaesthesia. Cure was defined as the absence of subjective complaint of urine leakage, and the absence of leakage on cough stress test.

Results

Mean follow-up was 17.4 months (12-29). 120/141 (85%) patients were completely dry, 10/141 (7.1%) patients were improved and 11/141 (7.9%) failed. Urgency disappeared in 22 patients, was identical in 17 cases, improved in 16 cases and got worse in 5 patients. 6 patients complained of *de novo* urgency. Pre-operative and post-operative uroflowmetry, residual urine and duration of the micturition were analysed for 82 patients, as shown in table 2.

Table 2: Pre-operative and post-operative uroflowmetry

Uroflowmetry parameters	Pre-operative N= 82	Postoperative at >12 months follow-up N= 82	<i>p</i>
Maximum Flow rate (ml/s)	32.4±13.1	26.7±9.9	<0.01
Voiding time (s)	30.9±19.1	33.9±16.9	NS
Residual urine (ml)	11.9±44.5	22.8±45.4	NS

Data are presented as mean \pm standard deviation, NS=not significant. Univariate analysis. 5 patients had post-operative Qmax <15ml/s but without any residual urine. None of the patients had post-operative Qmax <10ml/s.

5/141 patients (3.5%) had peri-operative complications: 1 bladder perforation diagnosed by cystoscopy, 1 urethral perforation and 3 latero-vaginal perforations (sulcus). Immediate post-operative voiding disorders have been reported in 5 (3.5%) patients, treated by immediate release of the tape in 4, (surgical 3, urethral dilatation with Hegar bougie 1), and temporary intermittent self catheterisation in 1. Among these 5 patients, all recovered a normal micturition (based on uroflowmetry).

Interpretation of results

Trans-Obturator Tape can achieve good results (85% of patients completely dry), similar to TVT procedure at one year follow-up, with low rate of post-operative retention (3.5%). The peri-operative complication rate is very low (3.5%) and all these complications occurred during the learning curve.

Concluding message

T.O.T.[®] shows good medium term results for stress urinary incontinence. Long term follow-up is needed for further assessment.

References

1. Transobturator urethral suspension: a minimally invasive procedure to treat female stress urinary incontinence]. Prog Urol 2001;11:1306-13. *Article in french*