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Author(s):	A.Pigné ¹ , F.Valentini ² , J-B.Piera ² , G.Besson ² , P.Nelson ²
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Institution City Country	¹ Hôpital Rothschild, Paris, ² Hôpital Jean Rostand, Ivry-sur-Seine, FRANCE
	Double Spacing
Title (type in CAPITAL LETTERS)	TRANS VAGINAL TAPE (TVT): DOES IT MODIFY THE MECHANICAL FUNCTION OF URETHRA AND DETRUSOR?

Aims of study: To assess the effect on the urethral mechanics and on the detrusor efficiency of the new ambulatory surgical method (TVT) of management of urinary incontinence.

Methods: Nineteen consecutive female patients (mean age : 53.0 years, range: 33-73 years) with urinary stress incontinence who underwent a TVT operation had urogynaecological examination and urodynamic tests before and after (one month) surgery. Ten patients (52.6%) had a previous surgery of incontinence.

Modelized analysis [1] of the free uroflow curves allowed first to estimate an obstruction coefficient (g) and second to calculate a characteristic parameter of the detrusor efficiency (F40). The g value is 1 for a normal subject, < 1 for a constrictive obstruction and > 1 for a gaping urethra. The F40 value was normalized i.e. equal 1 for a normal detrusor function.

Results: Despite a slight increase of the urethral obstruction after TVT (a linear regression gave : $g_{\text{after}} = 0.398 * g_{\text{before}} + 0.278$), a tendency to restore a value close to the normal value was observed i.e. a smaller relative change for an initial value of $g < 1$ than for an initial value > 1 (gaping urethra). No meaningful difference was observed between the 2 sub-groups (previous surgery or not).

The parameter of detrusor efficiency was found normal for 35% of the subjects before TVT and only for 10% after. After surgery (one month) a mediocre or very low detrusor efficiency (likely due to a disturbance of the neural control) was found for 80% of the

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Author(s): A.Pigné¹, F.Valentini², J.B.Piera², G.Besson², P.Nelson²

subjects. At this follow-up, all patients reported no incontinence but a majority complained of urgency.

Conclusion: TVT is a very interesting procedure for treatment of urinary stress incontinence as the incidence on the mechanics of the urethra is to correct the previous abnormality with a slight increase of the obstruction. Its incidence on the detrusor efficiency must be evaluated with a greater follow-up.

[1] Ann Réadap Méd Phys: 1992 35 1-10; Prog. Urol: April 1999