

LONG-TERM (3½ YEARS) VOIDING PHASE CHANGES AFTER TVT. PRESSURE-FLOW STUDIES BEFORE, ONE YEAR AND 3½ YEARS AFTER TVT.**Hypothesis / aims of study**

The aim was to evaluate the voiding phase before, one year and 3½ years after the TVT procedure for stress incontinence.

Study design, materials and methods

A total of 45 women with the condition stress urinary incontinence were included in the study. For voiding phase assessment the patients were asked if voiding had changed postoperatively and objectively uroflowmetry, residual urine measurement and pressure-flow data were compared (1). Subjective and objective work-up was performed preoperatively, after one year and 3½ years after surgery.

Results

At one/3½ years follow-up, respectively 87/65 % were subjectively cured, 13/24 % improved, 0/7 % were unchanged or worse and 0/4 % were unknown. The objective cure rate was 88/81 %. Subjectively 78/60 % of the patients felt an altered voiding phase towards more difficult voiding respectively one and 3½ years after surgery. Earlier we reported significant changes in Q_{max} , corrected Q_{max} and $Q_{average}$, residual urine volume and urethral resistance factor (URF) (table 1) (1). Between 1 year and 3½ years no significant changes were found in spontaneous uroflowmetry variables or residual urine volumes. On the other hand the urethral resistance decreased significantly, even though it did not reach the preoperative level (table 1). Only one patient could be classified as obstructed. After 3½ years 7.5 % had de novo urgency symptoms and 7.5 % had aggravated urge symptoms in a pre-existing mixed incontinence. Two patients had voiding difficulties and performed self catheterization once daily one year postoperatively, while none had problems 3½ years after surgery.

Interpretation of results

Subjective and objective changes in the voiding phase at one year after surgery remained stable or improved in the long-term (3½ years).

Concluding message

The impaired voiding function documented at one year after TVT does not seem to develop further on the contrary.

Table 1

Spontaneous uroflowmetry variables, residual urine volume and pressure-flow variables.

(n=40) (Mean(SD))	Before	1 year	3½ years	p (1 year versus 3½years)
Spontaneous uroflowmetry				
Q_{max} , ml/s	28 (8)	24 (7)	23 (9)	NS
Corr Q_{max} , ml/s	1.8 (0.5)	1.4 (0.4)	1.3 (0.6)	NS
Q_{ave} , ml/s	14 (5)	11 (3)	10 (4)	NS
Residual urine volume, ml				
	16 (19)	28 (28)	30 (34)	NS
Pressure-flow				
URF ($P_{detQ_{max}}/Q_{max}^2$)	0.07 (0.05)	0.12 (0.13)	0.10 (0.13)	0.03

Reference

1. Does the tension-free vaginal tape procedure affect the voiding phase? Pressure-flow studies before and one year after surgery. *BJU International* (2002), 89, 694-698.