

URODYNAMIC PARAMETERS PREDICTING VOIDING DIFFICULTY AFTER TVT SURGERY

Aims of Study

TVT surgery was usually known not to affect voiding by placing prolene tape in the mid urethra without tension. However, some patients complain of voiding difficulty after TVT procedures. We tried to find out urodynamic parameters that can predict voiding difficulty after TVT surgery.

Methods

The study comprised 128 women who had received TVT procedure and completed follow up evaluations. Patients were divided into two groups according to the absence (Group I) or presence (Group II) of post-operative voiding difficulty. Pre- and postoperative clinical or urodynamic data were compared between two groups.

Results

Of the total, 104 patients (81.25%) became completely dry and 24 patients (18.75%) significantly improved their urinary incontinence. In all cases, post operative peak flow-rate(Qmax) significantly decreased and flow-time, time to Qmax, and residual urine volume significantly increased(Table 1). Decrease of Qmax, Qmean and increase of residual urine volume were greater in the patients with postoperative voiding difficulty than those without(Table 2). The patients (n=76) who complained post operative voiding difficulty showed lower Qmax, Pdetmax, PdetQmax and URA than those(n=52) without in preoperative urodynamic study (Table 3). There were no significant differences in the clinical data between two group of patients.

Table 1. Comparisons of pre and postoperative uroflowmetry(n=128)

Uroflowmetry (n=128)	Qmax (ml/sec)	Qmean (ml/sec)	Flowtime (sec)	Time to Qmax (sec)	Residual Vol (ml)
Preoperative	24.59*	13.41	18.28	6.91	11.72
Postperative	19.13	11.66	24.25*	9.47*	20.41*

Table 2. Change of uroflowmetry parameters between two group of patients

Change of parameters	ofQmax (ml/sec)	Qmean (ml/sec)	Flowtime (sec)	Time to Qmax (sec)	Residual Vol (ml)
Group I (n=52)	-3.11	0.28	2.57	3.75	8.36
Group II (n=76)	-6.67*	-4.39*	2.33	6.58	28.83*

Table 3. Comparisons of preoperative urodynamic parameters between two group of patients

Preoperative urodynamics	Qmax (ml/sec)	Pdet (cmH2O)	maxPdetQmax (cmH2O)	URA (cmH2O)	Wmax (cmH2O)
Group I (n=52)	27.54*	33.21*	18.79*	8.75*	34.40
Group II n=76)	22.94	24.04	12.39	6.22	37.21

*:P<0.05

Conclusions

With this results, TVT surgery were shown to provoke changes in the voiding pattern. The patients with postoperative voiding difficulty had relatively low Qmax, Pdetmax, PdetQmax at the preoperative urodynamics. It was suggested that these urodynamic parameters could be used to predict voiding difficulty after TVT operation.