

PREDICTORS OF SUCCESSFUL VOIDING TRIAL AFTER TRANSOBTURATOR TAPE (TOT) PROCEDURE FOR FEMALE STRESS URINARY INCONTINENCE (SUI); THE MEANING OF THE FIRST VOIDING TRIAL

Hypothesis / aims of study

Voiding difficulty often occurs after TOT procedure. This study was performed to assess the predictors of successful voiding trial after TOT procedure and to assess the predictive value of fist voiding trial

Study design, materials and methods

From sep. 2009 to June, 2010 100 patients with urodynamically proven SUI were prospectively enrolled. All patients were given informed consent. 3days of frequency volume chart, free uroflowmetry (maximal flow rate (Qmax) post void residual urine volume (PVR)), urodynamic parameters (PdetQmax, Pdetmax VLPP), physical examination, concurrent cystocele repair, past history were analysed. First voiding trial (VT 1) was performed on the next day of the operation with filling through previously inserted Foley catheter as much as the maximal voided volume (MVV) on FVC and second voiding trial (VT2) was performed with natural filling at the maximal indurable bladder sensation. Failure was defined as PVR>150. T-test, chi-square test, logistic regression analysis

Results

85 patients passed voiding trial. On univariate analysis, preoperative Qmax, age, concurrent cystocele repair showed statistical significance and logistic regression analysis revealed Qmax (OR; 1.090, p value=0.048) and absence of concurrent cystocele repair (OR; 0.243, p value=0.042) were the predictors of successful voiding trial. 89 patients passed fist voiding trial and 6 patients passed 2nd voiding trial. The positive predictive value and sensitivity for the first voiding trial were 89.8% and 93.02%. The negative predictive value and specificity for the first voiding trial were 45.4% and 35.71%.

Interpretation of results

Maximal flow rate and absence of concurrent cystocele repair can be used as the predictors for successful voiding trial. The negative predictive value of the first voiding trial after TOT is relatively low compared with the second voiding trial. Therefore, we need to perform at least 2 voiding trials

	VT failure	VT Success	P value
Patient number	15	85	
Age	64.71±10.29	57.12±9.42	0.002
BMI, mean	25.24±1.53	24.3±2.58	0.46
Previous pelvic Op			
Hysterectomy	0	11	
C/S	0	2	
Prior Incontinence Surgery	1	3	
Concomitant S.			
Cystocele repair	7	10	0.026
Rectocele repair	1	5	
Stamney grade			0.76
I	5	22	
II	10	63	
III	0	0	
Pdetmax	20.85±7.90	22.64±8.56	0.14
Pdet Omax	16.71±8.25	16.93±7.63	0.76
VLPP	62.15±26.05	56.45±20.90	0.61
Free uroflowmetry			
Qmax (ml/sec)	16.50±6.71	25.67±11.91	0.036
PVR	21.42±17.03	24.40±29.39	0.15
	LRA		
	P value		OR
Maximal Flow Rate	0.048		1.090
Concomitant cystocele repair	0.042		0.243
Age	0.567		

Concluding message

In diagnosing voiding dysfunction after TOT and before deciding clean intermittent catheterization we recommend at least two voiding trials due to the low specificity and negative predictive value of the first voiding trial

<i>Specify source of funding or grant</i>	none
<i>Is this a clinical trial?</i>	Yes
<i>Is this study registered in a public clinical trials registry?</i>	No
<i>Is this a Randomised Controlled Trial (RCT)?</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>	Korea university Institutional Review of Board
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes