

## THE EFFECT OF MIDURETHRAL SLING PROCEDURES ON THE POSTOPERATIVE VOIDING FUNCTION IN THE PATIENTS WITH FEMALE STRESS URINARY INCONTINENCE WITH LOW UROFLOW

### Hypothesis / aims of study

Traditional sling procedures seem to affect postoperative voiding function in a negative way. Even midurethral sling procedures were designed as tension free nature, it is not evident that how those procedures affect voiding function postoperatively. The aims of this study were to evaluate the effect of midurethral sling procedures on the postoperative voiding function in the patients with female stress urinary incontinence who complained of weak urine stream preoperatively and to know if there is any difference in postoperative results according to the type of surgery.

### Study design, materials and methods

We retrospectively reviewed 401 patients who underwent midurethral sling procedures due to female stress urinary incontinence from February 2002 to December 2006. Among those, 62 patients with less than 15ml/s of Qmax(voided volume>150 ml) were selected in this study. Median follow up period was 6 months. Age, parity, preoperative VLPP were 52.7±10.1 years, 2.1±0.3, 106.2±20.7cmH<sub>2</sub>O, respectively. Qmax, residual urine volume, IPSS frequency, urgency, nocturia scores were compared before and 3-4 months after surgery. The changes of Qmax and residual urine volume were also compared according to the type of surgery.

### Results

Table 1. Overall results of sling procedures according to the type of surgery (TVT and TOT)

	TVT(n=24)			TOT(n=38)		
	pre-op	post-op	p-value	pre-op	post-op	p-value
Qmax(ml/s)	10.67±2.9 2	16.53±6.3 8	0.001	11.93±1.83	18.11±6. 89	0.003
voided volume(ml)	187.15±4 3.61	249.25±1 26.83	0.131	208.25±48.0 9	248.40±1 07.87	0.100
residual volume (ml)	17.20±36. 68	9.53±22.9 8	0.520	8.33±23.45	20.46±29 .78	0.236

Table 2. Overall results

	Qmax < 15ml/s group(n=62)		
	pre-op	post-op	p-value
Qmax(ml/s)	11.17±2.59	17.15±6.54	<0.01
voided volume(ml)	200.84±47.07	248.68±112.58	0.021
residual urine volume(ml)	12.77±30.59	15.00±526.72	0.774
IPSS frequency scores	3.88±1.32	1.83±1.94	0.067
IPSS urgency scores	3.66±1.36	1.00±1.54	0.007
IPSS nocturia scores	2.66±0.52	1.50±0.84	0.013

### Interpretation of results

Storage symptoms and uroflow were improved after midurethral sling procedures in the patients who complained weak urine stream preoperatively. Type of

surgery did not show any significant difference in the change of uroflow. Weak urine stream in these patients seems to be related in part to small voided volume as a result of urine leak and accompanied overactive bladder (OAB) symptoms.

### Concluding message

Properly performed midurethral sling procedures do not adversely affect postoperative uroflow in those patients with weak stream. Rather, it can improve uroflow by correcting incontinence and improving OAB symptoms.

### References

- Neurourol Urodyn (2008) 27;40-44  
 Int Urogynecol J Pelvic Floor Dysfunc (2002) 13;353-357  
 J Urol (1998)160;1312-1316

Specify source of funding or grant	None
Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Institutional Board of Eulji Medical Center
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes