

## THE TRANSOBTURATOR TAPE SLING PROCEDURE WITH MONARCTM USING MODIFIED TAPE INSERTION SITE LESSENER POSTOPERATIVE LEG PAIN

### Hypothesis / aims of study

The transobturator sling is currently a very popular method in female stress incontinence (SUI) and has shown high success rates and patient satisfaction. However, a small number of patients reported complications of leg pain after surgery.[1] In surgical textbooks, the recommended groin skin incision point through the obturator foramen is just lateral to the ischiopubic ramus, level with the clitoris.[2] However, the adductor muscle belly(a.m.b.) of some patients was located at the recommended site of incision. We tried to avoid the adductor muscles and approached just below the tendon of adductor brevis and gracilis muscle in order to avoid muscle injury and reported the results and safety of our modified technique.

### Study design, materials and methods

At our center, 184 SUI patients received the transobturator tape procedure (TOT) using a monofilament polypropylene tape (Monarc™) from Feb. 2006 to Dec. 2008. Each patient underwent careful history-taking, a pelvic physical exam, urinalysis, a 1-hour pad test and an urodynamic study preoperatively. Each revisited our center 1,3,6,12 months after surgery and then yearly. For patients lost to follow-up within 3 months, the Stamey's surgical outcome scale(SSOS) questionnaire[3] and questions about the postoperative complications were checked via phone interview. Surgical success was defined by the SSOS as minimal or no leakage with subjective satisfaction.

The new insertion point was just below the tendon of adductor brevis and gracilis muscle and above the tendon of adductor magnus muscle, generally 1-1.5cm below the level of clitoris and very easily palpable as skin notching which just lateral to the ischiopubic ramus and between the muscle bellies of the adductor brevis and the adductor magnus. (Figure 1)

### Results

The mean age of the 184 patients was 54.3±9.2 years. The patient characteristics are shown in Table 1. The statuses of 162 of the 184 patients after surgery could be identified. The overall treatment success rate was 85.8% (139 of 162 patients). One hundred and fourteen patients (70.4%) were completely cured, and 25 patients (15.4 %) showed improvement after TOT surgery. After this modified TOT surgery, 2 patients (1.2%) complained of de novo urgency, and 2 patients (1.2%) suffered from interruption. With the exception of one patient, none complained of leg discomfort at 1 month postoperatively. There was one patient who complained of upper leg pain 3 months after surgery. This patient was diagnosed with lumbar radiculopathy and showed the improvement after treatment of the lumbar radiculopathy.

### Interpretation of results

The modified insertion site of monofilament polypropylene tape showed comparable surgical success rates and no leg pain.

### Concluding message

Postoperative leg pain could result from nerve or muscle injury. Our modified surgical method, which generally tried to avoid the muscle injury, seemed to lessen leg pain after TOT procedures.

Figure 1. Anatomically, the new insertion point was just below the tendon of adductor brevis and gracilis muscle and above the tendon of adductor magnus muscle.

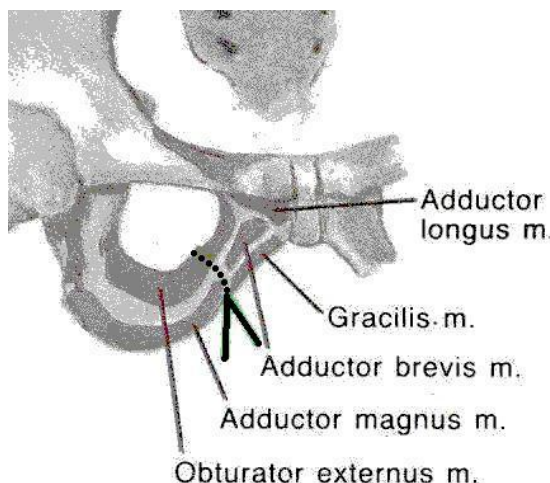


Table 1. Patients' characteristics

Modified TOT patients		References
No. of patients	184	1. Debo- dinance P. Trans- obturator urethral sling for surgical correction of female stress urinary incontinence : Outside-in (Monarc) versus inside-out (TVT-O). Are both ways safe? J Gynecol Obstet Biol Reprod. 2006;35:571 -7
Mean age (range)	54.3(37-74)	
BMI(range)	25.1(19.4-40.0)	
DM, HTN (%)	55 (34.0%)	
Gynecologic operation (%)	21 (13.0%)	
Symptom duration (months)	57.5	
Stamey grade (range)	1.67 (1-2)	
Urgency (%)	112 (71.6%)	
Urge incontinence (%)	54 (59.9%)	
MUCP (cm H2O)	52.9	
MBC (ml)	398.7	
VLPP (cm H2O)	86.8	
CLPP (cm H2O)	103.9	
Q-max (ml/sec)	33.1	
Q-tip >30 (%)	41.8	2. Dm ochowski R, Scarpero H, Starkman J. Tension-free vaginal tape procedures. In: Wein AJ, Kavoussi LR, Novick AC, Partin AW, Peters CA, editors. Campbell-Walsh urology. 9th ed. Philadelphia: Saunders; 2007;2251-71
1hr Pad test (gm)	49.1	
Voided volume (ml)	231.6	
PVR volume (ml)	23.0	
FBC (ml)	383.3	
3. Stamey TA. Endoscopic suspension of the vesical neck for urinary incontinence in females. Report on 203 consecutive patients. Ann Surg. 1980;192:465-71Stamey's		

<b>Specify source of funding or grant</b>	<b>none</b>
<b>Is this a clinical trial?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>Yes</b>
<b>Specify Name of Ethics Committee</b>	<b>IRB of the Seoul National University Boramae Hospital, Seoul, Korea</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>No</b>