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## PRELIMINARY REPORT OF MODIFIED SURGICAL TECHNIQUE FOR THE TREATMENT OF FEMALE STRESS URINARY INCONTINENCE : CANAL TRANS OBTURATOR TAPE (CANAL TOT)

### Hypothesis / aims of study

Canal TOT was developed to reduce the complications of TOT by modifying the sling procedure of TOT with distal urethral polypropylene sling (DUPS) (1). The aim of our work was to describe a modified surgical technique for the treatment of female stress urinary incontinence and to evaluate its feasibility.

### Study design, materials and methods

Between Oct. 2006 and Feb. 2007, 41 female patients with stress urinary incontinence were enrolled in this retrospective study. All the patients underwent the canal TOT procedure. Average follow-up was 2.5 months (range 1-5). Surgical outcome was determined by disease-specific quality of life instruments IIQ-7 and UDI-6.

**Surgical Technique :** Two oblique lateral incisions are made in the anterior vaginal wall. A suburethral canal is created in the anterior wall 1 1/2 cm from the urethral meatus using a fine right angle clamp. The sling is transferred beneath the suburethral canal. Further stab incisions are made in the genito-crural fold at the level of the clitoris on both sides. Index finger guides helical tunneller tip from the incision made at the fold to the incision made at anterior vaginal wall, through obturator membrane, after the finger was inserted to the membrane through the incision at anterior vaginal wall. The polypropylene tape is then attached to the tunneller and brought back through the passage created. A cystoscopy is then performed to check the integrity of the urethra and bladder.

### Results

The mean operative time for canal TOT was 23 minutes (range 19-28). During the surgery there were no intraoperative and postoperative complications. Concomitant procedures were performed including cystocele repair (n=1), rectocele repair (n=3), rectocele and cystocele repair (n=8), laparoscopically-assisted vaginal hysterectomy (n=4) and total vaginal hysterectomy (n=1). Postoperative complications are none. On questionnaires 76% of the patients reported no symptoms of stress incontinence under any circumstance and 93% reported never or rarely being bothered by stress incontinence.

### Interpretation of results

Because of the additional incision compared to TVT and TOT, this technique can be criticized. However, because of the additional adjustment of tension through two lateral incisions, voiding dysfunction and dyspareunia could be minimized postoperatively.

### Concluding message

Our results demonstrate that Canal TOT may be more safe and effective method than TOT.

### References

(1) Urology (2001) 58; 783-785

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**CLINICAL TRIAL REGISTRATION:** This clinical trial has not yet been registered in a public clinical trials registry.

**HUMAN SUBJECTS:** This study was approved by the Kangbuk Samsung Hospital's Institutional Review Board and followed the Declaration of Helsinki Informed consent was obtained from the patients.