

## DOES CONCOMITANT ANTI-INCONTINENCE SURGERY AT THE TRANS-VAGINAL MESH SURGERY IN PROLAPSE PATIENT AFFECT URINARY INCONTINENCE SPECIFIC QUALITY OF LIFE?

### Hypothesis / aims of study

About 40-50% of pelvic organ prolapse (POP) patients reported stress urinary incontinence (SUI) as well. These patients have a high risk to persist SUI symptom after POP repair surgery alone. And also, 20-30% of POP patients without symptomatic SUI before the POP repair can develop de novo SUI after prolapse surgery. On the other hand, about 30% of POP patients with symptomatic SUI before prolapse repair cured of SUI after prolapse repair alone. It is controversial whether anti-incontinence procedure is indicated or not when surgical treatment of POP is required. Both POP and SUI are typical quality of life (QOL) diseases, we need to evaluate not only surgical outcome but also patients' QOL and satisfaction.

The aim of this study is to assess the change of SUI status and urinary incontinence related QOL after trans-vaginal mesh (TVM) surgery with or without midurethral sling (MUS) procedure which was decided based on patients' selection.

### Study design, materials and methods

A total of 144 symptomatic POP patients who underwent TVM surgery were enrolled in this study. All patients were subjected to a diagnostic work up of medical history, physical examination (containing transvaginal examination) and laboratory testing. Stage of POP was diagnosed by POP quantification (POPQ) system. Patients were divided in three groups based on SUI condition and with or without MUS by patients' decision: (1) patients received MUS and having symptomatic or occult SUI (n=54); (2) patients received no MUS and having symptomatic or occult SUI (n=53); (3) patients received no MUS and having no symptomatic or occult SUI (n=37). To evaluate the incontinence symptom, grade and related QOL, International Consultation of Incontinence Questionnaire of Sort Form (ICIQ-SF), and to assess the incontinence specific QOL, King's Health Questionnaires (KHQ) were analysed. Assessments were performed before the surgery and at 12 months after the surgery. The protocol was approved by institutional review board. All participants provided informed consent before entering the study. For statistical analysis, paired t-test and ANOVA test were used and p value <0.05 was considered statistically significant.

### Results

12 months after TVM surgery, the SUI cure rate was 94.4% (51 out of 54) in a positive SUI with MUS group and 34.1% (17 out of 53) in a positive SUI without MUS group (p<0.05). Three patients (5.7%) needed later MUS procedure in a positive SUI without MUS group but no additional MUS procedure in positive SUI with MUS group (p<0.05). De novo SUI developed in 25% (8 out of 32) patients in a negative SUI without MUS group, but these patients didn't need later MUS procedure. Total ICIQ-SF score was improved significantly in a positive SUI with MUS group (from  $8.1 \pm 4.7$  to  $2.3 \pm 3.8$ , p<0.05) and in a positive SUI without MUS group (from  $6.5 \pm 3.7$  to  $3.6 \pm 3.4$ , p<0.05) after the TVM surgery. But in a negative SUI without MUS group, total ICIQ-SF score significantly worsened 12months after the TVM surgery (from  $0.1 \pm 0.4$  to  $2.3 \pm 3.1$ , p<0.05). In a positive SUI with MUS group and a positive SUI without MUS group, all KHQ domains except for personal relationships were significantly improved after the TVM surgery (p<0.05). In a negative SUI without MUS group, general health perceptions and incontinence impact improved significantly after the TVM surgery (p<0.05).

### Interpretation of results

Patients with POP and SUI were less likely to have SUI after TVM surgery with MUS compared with TVM surgery alone. However, only three patients (5.7%) needed later MUS for SUI in patients who received TVM surgery alone. After TVM surgery, urinary incontinence specific QOL improved equally irrespective of MUS surgery in a positive SUI patients.

The present study support the view that the concomitant MUS surgery is not indicated to every POP patient with SUI, but should be selected based on the patient's decision.

### Concluding message

The simultaneous MUS surgery is not indicated to every POP patient with SUI who receives TVM surgery. The MUS surgery should be selected based on the severity of SUI and patient's decision after enough information.

### Disclosures

**Funding:** none **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Kyorin University Ethics Committee **Helsinki:** Yes **Informed Consent:** Yes