

## EFFICACY OF READJUSTABLE SLING PROCEDURE IN FEMALE STRESS URINARY INCONTINENCE

### Hypothesis / aims of study

The REMEEEX (External mechanical regulation) sling system is a mid-urethral sling that has an advantage of adjustment of the sling tension in the postoperative period. We evaluated the effectiveness of REMEEEX sling system for the treatment of female stress urinary incontinence (SUI) with intrinsic sphincter deficiency (ISD) and, or detrusor underactivity (DU) and recurrent SUI.

### Study design, materials and methods

Between July 2007 and June 2010, 36 female patients with severe SUI were operated with the use of REMEEEX sling system. The patients were considered to have ISD proved by urodynamic study (Valsalva leak point pressure (VLPP) <60 cmH<sub>2</sub>O) and maximum urethral closure pressure (MUCP) < 20 cmH<sub>2</sub>O) and, or DU (Q<sub>max</sub> < 15 ml/s). We readjusted at the next day of procedure. Evaluation of the functional result was performed by means of uroflowmetry and residual urine volume at 1 week and 1 month after the surgery. The satisfaction of the operation was measured by Self-assessment/Sandvik questionnaire.

### Results

The mean age was 60.3 ± 9.5 years. Before surgery, 23 patients had ISD, 9 patients had DU, 1 patient had both of ISD and DU, and 3 patients had undergone previous surgery for SUI. Among the 36 patients, 17 patients were readjusted at the next day of procedure. After the procedure, mean Q<sub>max</sub> was decreased with increased residual urine volume, but those were improved with time (Table 1).

### Interpretation of results

Long term assessment was possible in 22 patients (61.1%) and their mean follow up time was 16.3 ± 11.6 months. Among them, 14 patients (63.6%) were cured and 6 patients (27.3%) were improved. Eleven patients (50%) were very satisfied and satisfied and 4 patients (18.2%) unsatisfied on the satisfaction questionnaire.

### Concluding message

The REMEEEX re-adjustable sling system provides high cure rate and is suitable for women with SUI with ISD and, or DU, and recurrent SUI. We need more studies that evaluate the long-term efficiency of this procedure.

**Table 1. Change in the uroflowmetry parameters after surgery**

	Before	POD#1day	POD#1week	POD#1month
<b>SUI with ISD (n=27)</b>				
Qmax (m/s)	26.9±9.5	14.6±5.8	17.6±8.7	18.6±6.3
Voided Vol (ml)	271.9±106.2	211.5±95.9	230.5±154.2	268.1±176.9
PVR (ml)	1.7±4.4	96.9±107.6	22.0±54.2	10.1±33.7
<b>SUI with DU (n=9)</b>				
Qmax (m/s)	11.8±2.9	11.7±9.6	13.1±6.6	13.6±5.1
Voided Vol (ml)	234.1±131.0	155.1±95.6	189.0±133.7	273.6±205.4
PVR (ml)	38.1±69.7	119.1±129.5	93.0±102.8	58.5±87.7

POD: postoperative day, SUI: stress urinary incontinence, ISD: intrinsic sphincter deficiency defined as VLPP (Valsalva leak point pressure) <60cmH<sub>2</sub>O or MUCP (maximal urethral closed pressure) <20cmH<sub>2</sub>O, DU: detrusor underactivity defined with Q<sub>max</sub> (maximal flow rate) <15ml/s, PVR: postvoided residual urine

### References

1. A re-adjustable sling for female recurrent stress incontinence and sphincteric deficiency: outcomes and complications in 125 patients using the Remeex sling system. Errando C. et al. Neurourol Urodyn. 2010. nov;29(8): 1429-32
2. Surgical treatment of urinary stress incontinence using a method for postoperative adjustment of sling tension. Iglesias X. et al. Int Urogyn J Pelv Floor Dysfunc. 2003. nov;14:326-30
3. Remeex device for incontinence: implantation and regulation procedure, complication and results at 3 years follow-up. Mantovani F. et al. Arch Ital Urol Androl. 2004;76:49-50

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<b>Is this a clinical trial?</b>	<b>Yes</b>
<b>Is this study registered in a public clinical trials registry?</b>	<b>No</b>
<b>Is this a Randomised Controlled Trial (RCT)?</b>	<b>Yes</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>Ethic committee of Cheil General Hospital</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>

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*Was informed consent obtained from the patients?*

Yes

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