

## TRANSOBTURATOR MID-URETHRAL SLING- WHAT PATIENTS SHOULD EXPECT AFTER SURGERY?

### Hypothesis / aims of study

The aim of the study was to assess the occurrence of lower urinary tract symptoms (LUTS) in patients suffering from genuine stress urinary incontinence (SUI) in the early postoperative period after transobturator mid-urethral sling (MUS) placement. The evaluation of postoperative pain intensity and necessity of analgesic drugs use was also assessed.

### Study design, materials and methods

The study group consisted of 106 female patients without clinically relevant pelvic organ prolapse (POP-Q  $\leq 1$ ) who were suffering from genuine SUI (as confirmed by medical history, bladder diary, cough test in supine and standing positions and urodynamic investigation) who underwent transobturator MUS surgery on ambulatory basis. Beside epidemiological data all participants were questioned before and after surgery about presence of LUTS, pain sensibility and necessity of analgesic drugs intake. The follow-up visits were scheduled seven days and six weeks after the surgery. Patients were asked for the occurrence of: SUI (severity of this symptom was measured by means of Sandvik scale), urgency, nocturia, polyuria, splitting/spraying, hesitancy, terminal dribbling, and subjective feeling of post-void residual. Pain sensibility was assessed by numeric Visual Analog Scale (0 – 10 points). Necessity of analgesics drugs intake in 24 hour intervals was also investigated – patients were allowed to take twice daily, if necessary tablets containing 650mg of paracetamol and 75 mg of tramadol. Moreover patients' satisfaction from the surgery outcome was measured by means of 7 points Likert scale. Patients responded to the statement: I feel improvement in stress urinary incontinence, where 1- strongly disagree and 7 – strongly agree.

### Results

The mean age of patients from study group was  $49.0 \pm 10.5$ , the mean parity  $1.5 \pm 0.82$ , the mean BMI  $27.2 \pm 3.4$ . All patients were operated on ambulatory basis and were discharge home within 4-6 hours after surgery after first spontaneous voiding (PVR < 50ml). The clinical severity of SUI as measured by Sandvik scale before and after surgery is presented in Table I whereas the occurrence of LUTS in Table II.

Table I. Severity of stress urinary incontinence

Severity index (Sandvik scale)	Before MUS n (%)	7 days after MUS n (%)	6 weeks after MUS n (%)
1-2 points	0 (0)	96 (90.6)	97 (91.5)
3-4 points	26 (24.5)	9 (8.5)	8 (7.5)
6-8 points	80 (75.5)	1 (0.9)	1 (1.0)

Table II. The occurrence of lower urinary tract symptoms before and after surgery

Lower urinary tract symptoms		Before MUS n (%)	7 days after MUS n (%)	6 weeks after MUS n (%)
Storage symptoms	Urgency	17 (18.0)	56 (52.8)	14 (13.2)
	Polyuria	6 (5.7)	20 (18.9)	4 (3.8)
	Nocturia	9 (8.5)	14 (13.2)	3 (2.8)
Voiding symptoms	Splitting/spraying	5 (4.7)	44 (41.5)	20 (18.9)
	Hesitancy	11 (10.4)	18 (17.0)	28 (27.3)
	Terminal dribbling	2 (1.9)	18 (17.0)	15 (14.1)
Post-micturition feeling of incomplete bladder emptying		12 (11.3)	36 (34.0)	13 (12.2)

Seven days after surgery 62 patients (58.5%) presented voiding and post-micturition symptoms whereas as many as 67 (63.2%) presented storage problems (some patients suffered from both). The most common LUTS after one week were: urgency (52.8%), splitting/spraying (41.5%) and post-void feeling of incomplete bladder emptying (34.0%). The least frequent symptom was nocturia (13.2%). At six weeks follow-up visit 40 patients (37,7%) presented voiding and post-micturition symptoms and 19 participants (17,92%) experienced storage symptoms. The most undesired LUTS were: splitting/spraying (41.5%) and hesitancy (17%). Nocturia was the least frequent symptom – 2.8%. After 7 days patients reported mean pain intensity on VAS scale as 4.5 and this was diminished to 1.5 after six weeks. These were accompanied by decreased necessity of pain killer tablets use from 1.75 daily in first seven days to 0.19 daily after six weeks.

### Interpretation of results

The efficacy of transobturator MUS surgery in terms of stress urinary incontinence treatment was very satisfactory (from the group of 80 patients suffering from severe stress urinary incontinence there was only 1 complaining for the lack of improvement) in this short observation period. On the other hand in the early post-operative time (first seven days) almost 60% of patients experienced various lower urinary tract symptoms. Fortunately the occurrence of these undesired symptoms markedly (but not completely - hesitancy) decreased after six weeks observation. Pain intensity as well as pain killer use steadily decrease. After 7 days only 18 patients were satisfied from the treatment mainly due to undesired LUTS, however after six weeks this was changed significantly- 82 patients reported significant improvement in urinary incontinence.

#### Concluding message

Transobturator mid-urethral sling surgery is an effective procedure in the treatment of genuine stress urinary incontinence, however vast majority of patients suffer from undesired LUTS in early postoperative period. It seems that effective short-term postoperative strategy for undesired LUTS occurrence should be introduced in order to improve patients' quality of life.

#### Disclosures

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