

2-YEAR RESULTS OF A RANDOMIZED STUDY COMPARING RETROPUBIC AND TRANSOBTURATOR MID-URETHRAL SLINGS IN THE TREATMENT OF URODYNAMIC FEMALE STRESS URINARY INCONTINENCE

Hypothesis / aims of study

The aim of this study is to compare retropubic (RP) and transobturator (TO) slings in the surgical treatment of female stress urinary incontinence (SUI) in terms of clinical outcome and quality of life (QoL).

Study design, materials and methods

We randomized 54 women with urodynamically proven SUI to undergo either to TO (n:27) or RP mid-urethral sling surgery (n:27) as the primary surgical treatment by single surgeon (TT). Patients were assessed before and 1, 6 12 and 24 months after surgery on the basis of clinical history, physical examination and validated questionnaires including ICIQ, OABqV8 (over active bladder) and SEAPI QoL. Pad testing and urodynamic studies were performed only preoperatively. The postoperative pain was evaluated by a Visual Analog Scale (VAS) one hour and 24 hours after surgery. The Advantage® Retropubic MUS System or The Obtryx® Transobturator MUS System was used in all operations. Statistical analysis was performed by SPSS 20 software using Student-t and Chi-square tests where appropriate.

Results

Mean follow-up was 2,3+/-1,1 years. As shown in Table 1, the groups were homogenous in terms of age, body mass index (BMI), parity, concomitant prolapse surgery, operating time and preoperative urodynamic findings. There was no statistically significant difference between groups in terms of VAS scores at 1 hour and one day after surgery. The objective cure rates, assessed with stress test at the postoperative 1st month were 84,2% and 88,8% in TOT and TVT groups, respectively (Table 2). There was no significant difference in terms of subjective cure rates at 1 month and 2 years after surgery that was done via a telephone survey (Table 2). The SEAPI QoL scores improved significantly after surgery in both arms (Table 2). At 2 years, ICIQ, SEAPI QoL and OABqV8 scores did not differ significantly between the two groups (Table 2). There was no surgical complication noted in the study group.

Interpretation of results

Both, RP and TO routes of MUS surgery are effective to treat female SUI and both improve the QoL significantly. There is no difference between RP and TO routes in terms of surgical outcome at 2 years after surgery.

Concluding message

There is no significant difference between TO and RP routes in curing female SUI and improving the QoL at two years after surgery.

TABLE 1: Clinical and urodynamic findings

	TO	RP	p value
Age	52,4 (range 31-70 years)	56,7 (range 41-76 years)	0.132
BMI	27,4 ± 4,4	27,8 ± 4,6	0.782
Parity	3.04+7-1.39(median :3)	3.00 +/- 1.6 (median:3)	0.924
Follow up	2.0+/-1.3	2.3+/-1.0	0.545
Concomitant prolapse surgery	2	5	0.243
Operative time	33.4(±13,9) minutes	39.1(±17.7) minutes	0,195
Detrusor overactivity (patient number)	2	3	0.756
PVR (preoperative)	45,90+/-155,0	24,83+/-64,3	0.547
Q max (preoperative)	29,48+/_10,6	25,35+/-10,4	0.203

TABLE 2: Surgical outcome

Subjective cure rates (postoperative 1 month)	92,3%	88.9%,	0.670
Subjective cure rate (at 2 years)	% 81.5	% 77.8	0.735
Total ICIQ score (preoperative)	14,6+/-3,1	14,7+/-5,0	0.956
Total ICIQ ccore (1 month)	2,54+/-3,12	3.56+/-3.2	0.253
Total ICIQ score (2 year)	7,04+/-6,1	6,52+/-5,7	0.767

Total SEAPI QoL score (preoperative)	17,2+/-11,9	23,2+/-14,8	0.872
Total SEAPI QoL score (postoperative 1 month)	5,6± 8,2	9,0±8,9	0.132
Total SEAPI score (2 year)	3,2+/-5,97	8,09+/-11,2	0.081
Total OABqV8 score (preoperative)	11,72+/-6,78	16,90+/-7,94	0.116
Total OABqV8 score (at 2 years)	7,04+/- 6,13	6,52+/-5,73	0.245
VAS score (postoperative 1 st hour)	7.9	8.2	0.542
VAS score (postoperative 24 th hour)	3.1	3.5	0.215
PVR (postoperative 1 month)	40,23+7-23.3	43.83+/-38.5	0.783
Qmax (postoperative 1 month)	20.85+/-7.6	16.56+/-5.4	0,141

Disclosures

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Helsinki: Yes **Informed Consent:** Yes