

IS FOUR ARMS TRANSVAGINAL MESH SURGERY EFFECTIVE IN THE TREATMENT OF ADVANCED VAGINAL CUFF PROLAPSE?

Hypothesis / aims of study

Update data on the safety and efficacy of Four Arms transvaginal mesh surgery for treatment of advanced urogenital prolapse after hysterectomy (stage III vc Pelvic Organ Prolapse Quantification [POP-Q] system staging).

Study design, materials and methods

66 patients (60 after abdominal and 6 after vaginal hysterectomy) with severe symptomatic vaginal cuff prolapse, (POP-Q stage III vc) underwent self modified TVM surgery and were followed up for 3 (n=66) and 12 months (n=48). Each patient fulfilled preoperative and postoperative questionnaire. After hydrodysection single incision of anterior vaginal wall was performed starting 3cm from external urethral meatus up to vaginal cuff where remnants of utero-sacral ligaments were identified. Anterior vaginal wall was separated from the bladder and adjacent tissues until ischial spine on both sides were palpated. Upper arms of mesh were inserted through anterior part of obturator foramens, whereas lower arms through ischioanal fossas and sacrospinous ligaments. Lower part of the mesh was fixed with unresorbable sutures to the remnants of utero-sacral ligaments. Additionally in 22 patients suburethral sling had been inserted due to coexisting SUI. Kolpoperineomyoplasty with restoration of perineal body in order to reduce genital hiatus dimension was performed in all patients. Vaginal pack was placed for 24 hours in order to secure the proper contact of the mesh with vaginal wall. Subjective and objective evaluations included POP-Q staging were performed 3 and 12 months after surgery.

Results

Table 1. Clinical data after 3 and 12 months observation period. (Group I)

	3-months follow up	12-months follow up
Total patients number	49	48
POPQ		
0 vc	28 patients (57,2%)	28 patients (58,3%)
1 vc	20 patients (40,8%)	20 patients (41,7%)
Anatomical failure	1 patient (2%)	
Vaginal lenght -8 to-10cm	48 patients (97,9%)	48 patients (100%)
Subjective Improvement		
>90%	32 patients (65,3%)	35 patients (72,9%)
>70%	10 patients (20,4%)	8 patients (16,7%)
>50%	6 patients (12,2%)	5 patients (10,4%)
Lack of improvement	1 patient (2%)	
SUI DE NOVO	3 patients (6,1%)	5 patients (10,4%)

Table 2. Clinical data after 3-month observation period in 17 patients. (Group II)

	3-months follow up
Total patients number	17
POPQ	
0 vc	10 patients (58,8%)
1 vc	7 patients (41,2%)
Anatomical failure	0
vaginal lenght -8 to-10cm	17 patients (100%)
Subjective Improvement	
>90%	10 patients (58,8%)
>70%	5 patients (29,4%)
>50%	2 patients (11,8%)
Lack of improvement	0
SUI DE NOVO	1patient (5,8%)

The lack of observation after 12 months is due to shorter than 1 year time course after operation.

Interpretation of results

Objective and subjective data were available for 66 patients- 48 patients (group I) after 3 and 12 months and 17 patients (group II) after 3 months (patients still in observational period). In group I optimal anatomical outcome (POP-Q 0 vc -8 to-10 cm) was achieved in 28 patients (57,2%) whereas satisfactory outcome (POP-Q I vc -8 to-10 cm) was achieved in 20 patients (40,8%). In 1 case (2%) anatomical failure occurred (POP-Q III vc -4 cm). Subjective assessment based on questionnaires revealed that after 3 months 32 patients (65,3%) quantitated the improvement after the surgery for more than 90%, 10 patients (20,4%) more than 70% and 6 patients (12,2%) more than 50% whereas 1 (2%) (surgical failure) did not report any difference. In 4 cases in whom bladder injuries occurred during operation this complication was managed successfully by 3-days long catheterisation. In 3 cases (6,1%) de novo SUI occurred and this was managed successfully by TOT procedure performed 6 weeks after primary repair. Assessment after 12 months revealed the same anatomical outcome. 1 patient with anatomical failure was lost to follow up.

Subjective assessment after 12 months revealed that 35 patients (72,9%) quantitated the improvement after the surgery for more than 90%, 8 patients (16,7%) more than 70% and 5 patients (10,4%) more than 50%. SUI occurred de novo in 5 patients (10,4%). In group II in 10 patients (58,8%) optimal anatomical outcome (POP-Q 0 vc -8 to-10 cm) was found whereas in 7 patients (41,2%) satisfactory outcome (POP-Q I vc -8 to-10 cm) was achieved. Subjective assessment after 3 months revealed that 10 patients (58,8%) quantitated the improvement after the surgery for more than 90%, 5 patients (29,4%) more than 70% and 2 patients (11,8%) more than 50%. SUI occurred de novo in 1 patient (5,8%).

Concluding message

Our 12 months observational period revealed that The self modified Four Arms Transvaginal Mesh procedure is simple and very effective surgical method for the treatment of vaginal cuff prolapse.

Disclosures

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