

TOTAL PROLIFT SYSTEM® SURGERY FOR TREATMENT OF VAGINAL CUFF PROLAPSE – DO WE TREAT BOTH: ANATOMY AND FUNCTION?

Hypothesis / aims of study

The aim of the was to evaluate the anatomical and functional outcome after vaginal cuff prolapse surgery with Total Prolift System®.

Study design, materials and methods

The study was conducted on a group of 27 women who underwent vaginal cuff prolapse surgery with Total Prolift System® in Our Department between February 2006 and September 2007. During this period we performed 290 Prolift surgeries (anterior and posterior), so patients with complete vaginal cuff prolapse accounted for 9,3% of all women operated with this technique. After gynecological examination patients were classified according to Pelvic Organ Prolapse Quantification. 19 patients had vaginal cuff prolapse POPQ stage IV and 8 patient had both cystocele - POPQ stage III and rectocele – POPQ stage II. Mean parity was 2,3 (SD ±1,0). Average time of surgery was 67 ± 10 min (mean ± SD). Mean age at the time of surgery was 60,3 years (SD±10,3). Eight patients was after vaginal hysterectomy and 19 patient underwent total abdominal hysterectomy with or without bilateral salpingoophorectomy. Three patient had additional Burch colposuspension performed during previous procedure. Three other patient underwent colporrhaphy before the hysterectomy. The only intraoperative complication was bladder perforation which was sutured and patient was catheterized for 6 days. Before Prolift surgery seventeen patients were sexually active while 10 patients were not due to other causes than pelvic organ prolapse. Among the sexually active 12 suffered from dyspareunia before surgery. Three patient suffered from stress urinary incontinence and four from overactive bladder symptoms before surgery. Additionally seven patient had difficulty in bladder emptying and 4 complained for chronic constipation. All of them had a subjective feeling of prolapse. Twenty one patients (77,8%) were available for follow up visits after 6 and 12 months. During follow up visits patients were checked for pelvic static (POP-Q scale – gynecological examination). Additionally cough test was performed with bladder filled with 250 ml of saline in order to check continency. Moreover King's Health Questionnaire and Subjective Bowel Function Questionnaire was filled by every patient in the presence of the investigator. Fisher exact test was used to evaluate the outcome of surgery and *p* value <0,05 was considered as statistically significant.

Results

After twelve months only 3 out of 21 patients had recurrence of cystocele POP-Q stage II A It should be mentioned that all these three patients were blue collar workers. In the rest of study group the POP-Q after 6 and 12 months of follow up POP-Q stage was 0 in 13 and stage I in 5 patients. This gives us an efficacy of 85,7% in terms of anatomical restoration, however it should be stressed that during the observation time there was no real recurrence of vaginal vault prolapse. Mean vaginal length as measured after twelve months was 8 cm (VC = - 8 ± 1,0 cm). We observed two mesh erosions in the apex of the vaginal vault on second follow up visit. Stress urinary incontinence *de novo* occurred in 2 patients and overactive bladder symptoms intensified in 3 women but in one case symptoms markedly decreased. Out of 21 patients available on follow up visits 13 (61,9%) were sexually active. Four women complained about dyspareunia, however this was found after the operation whereas women who complained for sexual dysfunction before operation were cured. None of patients had problems with constipation and defecation after surgery as confirmed by Subjective Bowel Function Questionnaire. Three patients were not satisfied with the effect of surgery due to occasional but severe pelvic pain causing difficulty with walking and moving.

Table 1. Functional outcome of Total Prolift System® surgery.

SYMPTOMS	BEFORE SURGERY		AFTER SURGERY		p value
Urinary incontinence	3	11,1%	5	23,8%	0,43
Overactive bladder symptoms	4	14,8 %	3	14,3%	0,96
Dyspareunia	12	44,4%	4	19,0%	0,06
Difficulty In bladder emptying	7	25,9%	0	-	0,012
Constipation	4	14,8%	0	-	0,065
Pelvic pain and	0	-	3	14,3%	0,043
Subjective prolapse feeling	27	100%	3	14,3%	<0,0001

Interpretation of results

Total Prolift System is very effective tool in the treatment of severe vaginal vault prolapse in terms of anatomical restoration of female pelvic floor [1, 2, 3]. However, as indicated by post operative symptoms function not always follow the anatomy. Probably pelvic pain which occurred in three patients postoperatively was caused by excessive fibrosis generated by polypropylene mesh.

Concluding message

Before pelvic floor restoration in case of complete vaginal vault prolapse patients should be informed that in spite of very high anatomical efficacy of the procedure some functional abnormalities could occur.

References

1. J Gynecol Obstet Biol Reprod (Paris). (2004)33; 577-88.
2. Int Urogynecol J Pelvic Floor Dysfunct. (2006) 17; 483-8.
3. Int Urogynecol J Pelvic Floor Dysfunct. (2007) 18; 743-52.

Specify source of funding or grant	NONE
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN

<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Bioethics Committee of Medical University School of Lublin, Poland
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes