

SEXUAL FUNCTION BEFORE AND AFTER VAGINAL PROLAPSE SURGERY WITH ALLOGRAFT REINFORCEMENT.

Hypothesis / aims of study

To evaluate change in sexual function and graft tolerability one year after Pelvic Organ Prolapse (POP) surgery incorporating transvaginal anterior allograft.

Study design, materials and methods

This is an ongoing, prospective, longitudinal, cohort study, comprising all consecutive women with grade 3-4 cystocele, and or rectocele enrolled for pelvic reconstructive surgery with anterior allograft reinforcement from September, 2003 to February, 2006. Acellular dermal graft was incorporated in the anterior vaginal compartment following midline cystocele colporrhaphy. The acellular dermal graft (4-5 x 7-10 cm) was placed longitudinally and attached with permanent sutures at 3 levels to the Arcus Tendineous Fascia Pelvis (ATFP) forming a "six-point" attachment to the graft and recreating bilateral paravaginal support.

Women reported on dyspareunia by using a visual analog pain scale and completed a Pelvic Organ Prolapse / Urinary Incontinence Sexual Questionnaire (PISQ-12) before and one year after surgery. McNemar's test was used to compare responses to individual PISQ items pre- and postoperatively. Change in PISQ-12 total scores and individual scores was assessed using paired t-test. Outcomes were compared between groups with t-tests, chi² tests, or Fisher's exact tests, as appropriate.

Results

Of 75 women who underwent surgery for POP with graft reinforcement, 36 women completed over one year follow up (range 6 -110 weeks), of which, 34 (94.4%) were sexually active. A midurethral sling was placed in 43 (59%) women for concomitant SUI. Median age and parity was 58 years (33-86), and 2 years (1-7), respectively. There were no cases of graft erosion. Self reported dyspareunia was present in 30/75 (40%) women preoperatively as compared with 4/34 (5.33%) one-year postoperatively ($p < 0.001$). Total mean sexual functioning scores based on the PISQ-12 improved by 17 points postoperatively at one year compared with preoperatively ($p < 0.001$) (Table 1). For each individual PISQ question, analysis showed that 70.6% to 100% of the women had a resolution of their sexual complaint postoperatively. The percentage of responses to each individual question that remained unchanged ranged from 0 to 29%, and de novo sexual dysfunction was reported in zero to 12.5% of the questions ($p < 0.008$). Midurethral sling placement did not significantly affect postoperative total PISQ-12 scores ($p = 0.503$).

TABLE 1: CHANGE IN PISQ-12 TOTAL AND INDIVIDUAL SCORES POSTOPERATIVELY COMPARED TO PREOPERATIVELY

PISQ-12	Mean score change pre- vs. postoperatively	Std Dev	Effect (change/Std)	Size	P-value
Total	16.73	9.12	1.83		<0.001
Desire	0.82	1.13	0.72		<0.001
Climax	1.18	1.42	0.83		<0.001
Excitement	0.94	1.03	0.91		<0.001
Satisfaction	1.18	1.49	0.79		<0.001
Pain	1.56	1.50	1.04		<0.001
Coital Incontinence	2.00	1.48	1.35		<0.001
Fear of incontinence	1.88	1.43	1.31		<0.001
Avoidance secondary to Bulge	1.55	1.21	1.28		<0.001
Negative emotions	1.94	1.36	1.42		<0.001
Erection problems	1.27	1.40	0.91		<0.001
Premature Ejaculation	1.84	1.25	1.48		<0.001
Orgasm intensity	1.00	1.62	0.62		0.006

Interpretation of results

Significant improvement in self-reported dyspareunia was found postoperatively compared with preoperatively ($p < 0.001$). Analysis of total mean PISQ-12 scores and individual questions revealed significant improvement in sexual function across all domains. Size effect of the change pre- compared to one-year postoperatively for all questions but one, showed a large change (> 0.8). Size effect for the question assessing orgasm intensity showed a moderate change (0.62).

Concluding message

After one year, incorporation of acellular dermal allograft for advanced cystocele appears to be safe and durable, with high rates of improved subjective self-assessment of dyspareunia and all aspects of sexual function addressed on the PISQ-12.

FUNDING:

NONE

DISCLOSURES:

NONE

CLINICAL TRIAL REGISTRATION:

This clinical trial has not yet been registered in a public clinical trials registry.

HUMAN SUBJECTS:

This study was approved by the Evanston Northwestern Hospital IRB committee and followed the Declaration of Helsinki. Informed consent was obtained from the patients.