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ANATOMICAL OUTCOMES OF HYSTEROPEXY WITH ANTERIOR ACELLULAR CADAVERIC DERMAL GRAFT VERSUS POLYPROPYLENE MESH AUGMENTATION

Hypothesis / aims of study

To compare the anatomical outcomes of bilateral sacrospinous hysteropexy after anterior and apical augmentation using an acellular cadaveric dermal graft versus polypropylene mesh.

Study design, materials and methods

40 women who underwent anterior colporrhaphy augmented with an acellular dermal matrix (Group I) were compared to 71 women who had anterior colporrhaphy with polypropylene mesh augmentation (Group II). All women with > Stage II pelvic organ prolapse who underwent concomitant bilateral anterior sacrospinous hysteropexy using single permanent sutures placed 1.5 cm medial to the ischial spines on both the right and left sacrospinous ligament (SSL) were included in this analysis. Each SSL suture was also secured to either the allograft or polypropylene mesh to a fixation point on the ipsilateral vaginal apex located 1cm lateral to the cervix on both sides simultaneously suspending the vaginal apices in both groups. The allograft was additionally secured to the arcus tendineus fascia pelvis ATFP bilaterally. The polypropylene mesh was approximated to the ATFP without fixation sutures. Concomitant midurethral slings and posterior repairs were performed as indicated. Wilcoxon two sample tests were used to assess the differences in pre and postoperative changes in POP-Q stage between groups I (hysteropexy with anterior allograft) and group II (hysteropexy with anterior synthetic mesh).

Results

Mean follow-up was 16.6 and 12.5 months in Group I and II (p=0.005), respectively. Mean age (56.2, 57.8), BMI (27.8, 25.8), and median parity (3, 3) were similar between groups. There were no graft erosions in the allograft group. There were 10 (14%) erosions in women who underwent polypropylene mesh augmentation. There was a greater improvement in POP-Q stage for the anterior compartment and point C in Group II versus Group I with the following median changes: Aa: -3 vs. -3.5, p=0.346; Ba: -3 vs. -3.5, p=0.061; and C: -6.5 vs. -3.5, p<.001, respectively. TVL and apical support were not significantly different between hysteropexy with acellular dermal matrix and hysteropexy with anterior polypropylene mesh.

Interpretation of results

Postoperatively, bilateral sacrospinous hysteropexy after anterior and apical augmentation using polypropylene mesh conferred better anterior and uterine support than hysteropexy with acellular cadaveric dermal graft reinforced anterior colporrhaphy. Polypropylene mesh augmentation had a higher erosion rate.

Concluding message

Bilateral sacrospinous hysteropexy with anterior and apical augmentation using an acellular cadaveric dermal graft or polypropylene mesh are viable alternatives to hysterectomy in prolapse repair.

References

1. Dietz V, van der Vaart CH, van der Graaf Y, Heintz P, Schraffordt Koops SE.(2010) One-year follow-up after sacrospinous hysteropexy and vaginal hysterectomy for uterine descent: a randomized study. *Int Urogynecol J Pelvic Floor Dysfunct.* 2010 Feb;21(2):209-16. Epub 2009 Oct 16.

Specify source of funding or grant	none
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Evanston Northwestern Health Care/NorthShore University HealthSystem
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes