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 1 cm 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