

ADJUVANT ALLODERM GRAFT FOR ADVANCED ANTERIOR COMPARTMENT PROLAPSE: COMPARISON TO STANDARD ANTERIOR COLPORRHAPHY AT 1-YEAR

Hypothesis / aims of study

Significant debate exists regarding the efficacy of graft materials in the anterior compartment. Observational series seem to provide promising results; however, few trials compare the use of adjuvant materials to standard anterior colporrhaphy. We sought to compare outcomes of patients receiving an acellular dermal matrix, to frequency age matched controls, in the repair of cystoceles extending to the hymenal ring or beyond.

Study design, materials and methods

Seventy-eight patients with prolapse to the hymenal ring or beyond underwent anterior compartment repairs augmented with an acellular dermal implant, between 11/2003 and 02/2005. Sixty patients have completed ≥ 1 year follow-up. The alloderm graft (4-5 x 7-10 cm) was placed longitudinally and attached at 3 levels to the ATRP (i.e. "six-point" repair), reestablishing bilateral paravaginal support. Proximal graft corners were sutured to either the ipsilateral proximal ATRP (n=41), or sacrospinous ligament (n=19) for women undergoing concomitant apical suspension. Forty-seven frequency age matched controls with prolapse to the hymenal ring or beyond, who had received standard anterior colporrhaphy with vicryl mesh imbedded in the repair, were identified for comparison of outcomes. POP-Q staging was performed preoperatively and postoperatively. Objective recurrence was defined as \geq Stage II (Aa or Ba - 1). Secondary outcomes included subjective stress and/or urge urinary incontinence, dyspareunia, EBL, and time to normal voiding. χ^2 , McNemar's and t-tests were used for comparison.

Results

The alloderm graft and vicryl mesh augmented groups were comparable with regards to mean age (61.5 vs. 61.0, $p=0.64$), median parity (2 vs. 2), BMI (25.9 vs. 26.9), prior recurrences (12% vs. 15%), prior SUI surgery (17% vs. 15%), concomitant surgeries and mean length of follow up (13.7 mo vs. 15.5 mo). Postoperatively, 13 (22%) recurrences of the anterior compartment were identified in the alloderm graft group vs. 27 (57%) in the vicryl mesh group ($p<0.001$). Recurrent prolapse to the hymenal ring or beyond was observed in 6 (10%) vs. 15 (32%) in the graft and vicryl mesh groups, respectively ($p=0.005$). In the posterior compartment, 9 (15%) patients in the Alloderm graft group vs. 2 (4%) in the vicryl mesh group had recurrences ($p=0.11$), and 4 (7%) vs. 1 (2%) had recurrence to the hymenal ring or beyond ($p=0.39$). Time to normal voiding (6 vs. 6 days), subjective SUI ($p=0.85$), urge urinary incontinence ($p=0.59$), EBL (281 vs. 315cc) and hospital stay (1.5 vs. 2.2 days) did not differ between groups. No vaginal erosions were observed in either group.

Interpretation of results

Our findings suggest that the use of a dermal acellular matrix anchored to the arcus tendineus fascia pelvis bilaterally provides significant benefit over standard colporrhaphy for the repair of stage II cystoceles or greater, with a 69 percent overall reduction in recurrence to the hymenal ring or beyond.

Concluding message

Although surgeons should remain selective when recommending the use of adjuvant materials in prolapse repair, the efficacy of this technique for managing advanced anterior compartment prolapse is promising at 1-year follow up. A randomized control trial is ongoing at our center.

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HUMAN SUBJECTS: This study was approved by the Evanston Northwestern Healthcare Institutional Review Board and followed the Declaration of Helsinki Informed consent was obtained from the patients.