

ADJUVANT DERMAL GRAFT FOR ADVANCED ANTERIOR COMPARTMENT PROLAPSE: COMPARISON TO STANDARD ANTERIOR COLPORRHAPHY

Hypothesis / aims of study

Significant debate exists regarding the efficacy of graft materials in the anterior compartment. Several observational series seem to provide promising results; however, few comparative trials have evaluated the efficacy of adjuvant graft materials for anterior compartment prolapse repair. We sought to compare preliminary outcomes for patients receiving an anatomically-anchored acellular dermal matrix (Repliform), to age matched controls receiving standard anterior colporrhaphy, for the repair of cystocele extending to the hymeneal ring or beyond.

Study design, materials and methods

59 patients with \geq Stage II anterior prolapse (Aa or Ba 0) underwent anterior compartment repairs augmented with an acellular dermal implant, between 11/2003 to 11/2004. 42 patients had completed 12-week follow up at the time of this assessment. The dermal graft (4 x 7 cm) was placed longitudinally and attached at 3 levels to ATFP, re-establishing bilateral paravaginal supports. The proximal graft was anchored to the posterior vaginal apex or paracervical fascia across the midline, restoring Level I fascial continuity. Proximal graft corners were sutured to either the ipsilateral proximal ATFP (n=31), or sacrospinous ligament (n=11) for women undergoing concomitant apical suspension. Forty-two age matched controls with \geq Stage II prolapse (Aa or Ba 0), who had received standard anterior colporrhaphy alone, were identified for comparison of outcomes at 12 weeks. POP-Q staging was performed preoperatively and at 6 and 12 weeks postoperatively. Objective recurrence was defined as \geq Stage II (Aa or Ba -1). Secondary outcomes included subjective stress and/or urge incontinence, dyspareunia, EBL, and time to normal voiding. QOL assessments included the PFDI, PISQ-12 and IIQ-7, administered before and after surgery in the graft group. Chi², McNemar's and student t-tests were used for comparison.

Results

The dermal graft and colporrhaphy groups were comparable in terms of mean age (60.6 vs. 62.8, p=0.54), parity (2.5 vs. 2.8), BMI (26.4 vs. 25.5), prior recurrences (p=0.69), prior SUI surgery (p=0.29), and concomitant surgeries with the exception of more bladder neck slings in the colporrhaphy group (p=0.002). Postoperatively, 5 recurrences (12%) were identified in the dermal graft group vs. 12 (29%) in the colporrhaphy group at 12 weeks (p=0.05). Recurrent prolapse to the hymeneal ring or beyond was observed in 2 (5%) vs. 7 (17%) in the graft and colporrhaphy groups, respectively (p=0.06). One patient in each group underwent repeat surgery, and 2 additional patients in the colporrhaphy group are considering surgery for symptomatic recurrence. Time to normal voiding (9 vs. 8 days), retention (p=0.57), subjective SUI (p=0.35), urge incontinence (p=0.37), detrusor overactivity (p=0.20), EBL (287 vs. 302cc) and hospital stay (1.5 vs. 1.7 days) did not differ between groups. QOL scores improved significantly.

Interpretation of results

The use of a dermal acellular matrix provides significant benefit over standard colporrhaphy for the repair of stage II or greater cystocele at twelve weeks.

Concluding message

Few comparative trials evaluate the efficacy of adjuvant graft materials for anterior compartment prolapse repair, and we present the first comparative trial of a biologic adjuvant material attached to the ATRP. These findings suggest that anchored acellular dermal grafts result in markedly improved outcomes for patients with prolapse extending to the hymeneal ring or beyond, without significant complication or discomfort. We believe that anatomically-based fixation of the grafts results in the restoration of fascial continuity at all levels, and may represent an important aspect of their success. Longer-term follow up of this observational cohort is ongoing at our centre.