

639

Tarnay C¹, Haessler A²

1. Kaiser Permanente Medical Center, 2. UCLA Medical Center

REPAIR OF LARGE ANTERIOR VAGINAL PROLAPSE WITH DERMAL GRAFT SUSPENSION TO ARCUS TENDINEUS FASCIA PELVIS: THE ARCUS SLING PROCEDURE

Hypothesis / aims of study

The aim is to determine the safety and efficacy of a novel surgical repair utilizing a dermal graft suspended bilaterally to the ATRF for repair of symptomatic advanced anterior vaginal wall defects

Study design, materials and methods

The charts of 25 consecutive patients who underwent anterior vaginal repair utilizing a dermal graft suspended to the Arcus Tendineus Fascia Pelvis (ATFP) between 7/01 and 10/03 were reviewed. All subjects suffered from large symptomatic anterior vaginal defect (POP-Q stage II-III). Each underwent preoperative urodynamic testing, POP-Q, and a modified IIQ survey assessment. The procedure involved bilateral dissection of the anterior vaginal wall into the retropubic space and bladder mobilisation to the most cephalad point associated with the prolapse. Braided polyester sutures were placed in the ATFP at the level of the ischial spine and at points approximately 3-4 cm toward the pubic bone using the Capiro™ suturing device. A dermal graft (Pelvicol™) was then affixed in a four-point manner such that the anterior prolapse was reduced. Cystoscopy was performed. Patients were evaluated at 6 weeks, 6 and 12 months, and as needed postoperatively. Estimated blood loss, complications, POP-Q stage, previous gynecologic procedures, concomitant procedures, and post-operative procedures were noted.

Results

All 25 patients underwent a successful arcus sling procedure. Sixteen (66%) of patients had a previous hysterectomy. Four women had prior anterior colporrhaphies. Concomitant procedures included 5 (21%) TVH, 9 (38%) suburethral sling procedures, 5 (21%) vault suspensions, 1 posterior vaginal repair and 2 perineorrhaphies. The arcus sling was the only procedure performed in 6 (25%) of patients. Mean age was 64.2 years. Estimated blood loss was 183 cc. Median follow-up was 12 months (range 4–24 months). At the most recent postoperative evaluation 24 of 25 women maintained anterior vaginal support with POP-Q stage of 0 or I. One case of stage III recurrent anterior vaginal prolapse was identified 6 weeks postoperatively. New stage II posterior vaginal prolapse was identified in 3 (13%) patients. Mean vaginal length was preserved during surgery, (preop 9.5cm vs. postop 8.7cm) There was one intraoperative complication; a cystotomy. Postoperative complications included one case of urinary retention associated with concomitant suburethral sling, two graft exposures that resolved using conservative treatment with estrogen cream, and a cuff abscess associated with a hysterectomy. There was no reported new onset urge incontinence or dyspareunia.

Interpretation of results

In this series, a novel anterior vaginal repair was established with dermal graft suspension to the ATRF. Stage II or greater anterior vaginal prolapse, and particularly recurrent defects, are often suboptimally treated with standard anterior colporrhaphy. Further, the vaginal approach for a paravaginal repair restores vaginal lateral support but may be limited as it relies on weak or inadequate pubocervical fascia for medial attachment. In this described procedure using tissue augmentation, there are two main advantages: 1) the combination of a biologic graft suspended across the anterior vaginal wall obviates reliance on host endopelvic fascial integrity while; 2) integrating the anatomic lateral attachment of the ATRF to restore vaginal support. We report at one year of follow-up after arcus sling, there is a 96% success rate of adequate asymptomatic anterior support.

Concluding message

In our series, this minimally invasive procedure is shown to be a safe and effective treatment for large and/or recurrent anterior vaginal prolapse and may prove to be a more durable cure for all advanced stage cystoceles.