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CYSTOCELE REPAIR UTILIZING ANTERIOR WALL MESH GRAFT PLACED VIA DOUBLE TRANS-OBTURATOR APPROACH (PERIGEE SYSTEM)

Hypothesis / aims of study

To describe our early experience with a novel system for placement of an anterior wall mesh graft for surgical repair of cystocele

Study design, materials and methods **:**

Women with anterior vaginal wall prolapse > Grade 2 underwent vaginal repair of cystocele with the Perigee System (American Medical Systems, Minnetonka, MN). This technique provides a comprehensive repair of cystocele caused by midline or paravaginal defects using a soft polypropylene mesh graft attached to the pelvic sidewalls (arcus) at the level of the bladder neck and 1-2cm distal to the ischial spine via two needles passed through the obturator space bilaterally. Two incisions are made in the groin on each side. There is minimal vaginal dissection required. Additional reconstructive and anti-incontinence procedures were performed as indicated. All underwent pre-operative urogynecologic evaluation including prolapse staging by Baden-Walker (BW) and POP-Q (PQ) systems. Outcome measures included prolapse degree at last follow-up visit, intra-operative complications, healing abnormalities, and other complications.

Results

20 women underwent the cystocele repair with mesh graft, with a mean follow up of 5.4 months (range 1-9). Mean age was 72.6 (54-83). Mean pre-op POP-Q Ba value = +2.4 (+/- 2.8). Associated procedures included posterior repair (12), Apigee vault procedure (2) and sling procedure (5). Average blood loss was 82cc (25-250). There were no intra-op or immediate post-op complications. Cystoscopy was completed in all patients and there were no bladder injuries. Two patients (4%) had mild levator pain post-op that resolved with short term muscle relaxant therapy. Mean post-op Aa value = -2.8 (+/- 0.3) and Ba value = -2.7 (+/- 0.4). BW zero degree cystocele was restored in 85% of subjects, and the remaining 15% were grade 1 or less and asymptomatic. Subjectively no patient has had any recurrent symptoms of prolapse. No patients have reported any groin pain extending beyond the first week post-op. Post-op stress incontinence occurred in 2 patients that tested negative for SUI pre-op (one required subsequent sling, the other very mild and doesn't want treated) and in one patient that had sling placed at time of Perigee for SUI. Exposure of the mesh without granulation tissue occurred in 1 (2%) which responded and healed with estrogen cream treatment alone. Granulation tissue reaction to the mesh did not occur in any patient. No revisions for mesh exposure or urinary obstruction have been required.

Interpretation of results

A double transobturator approach to place an anterior wall mesh graft for repair of cystocele appears to be a minimally invasive and safe technique. The graft has 4 mesh arms that are attached to the pelvic sidewalls via needles passed through the transobturator space. The inferior needle passage is a novel technique that allows the apical arms of the mesh graft to be attached safely and easily to the arcus approximately 1-2 cm from the ischial spine.

Concluding message**:**

Anterior vaginal wall prolapse (cystocele) is adequately and safely treated with placement of an anterior wall mesh graft via a double transobturator route (Perigee system). Long term follow-up is ongoing.