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RESTORATION OF VAGINAL APICAL AND POSTERIOR WALL SUPPORT WITH THE APOGEE SYSTEM

Hypothesis / aims of study

To describe our early experience with a novel system for surgical restoration of vaginal vault and posterior wall prolapse.

Study design, materials and methods

Women with vaginal vault prolapse \geq Grade 2 underwent vaginal vault suspension with the Apogee (American Medical Systems, Minnetonka, MN) at 4 urogynecology centers. This technique provides apical as well as posterior wall support using a soft polypropylene mesh placed thru bilateral peri-anal incisions. 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 including dyspareunia.

Results

55 women underwent the reconstructive procedure, with a mean follow up of 10.4 weeks (range 2-35). Mean age was 62.7 (36-83), and mean parity was 3 (1-10). Associated procedures included perineoplasty (37), anterior repair (13), Perigee procedure (23) and sling procedure (37). At last follow-up visit, mean total vaginal length was 8 cm (range 5-11). BW zero degree vault prolapse was restored in 50 (91%) of subjects, and mean PQ point C was -7.1 cm (range -5 to -11). Posterior wall assessment included BW mean enterocele grade 0 (96% Gr. 0) and rectocele grade 0 (100% Gr.0). Post-op PQ assessment included point Ap mean -2.9 cm, and point Bp mean -2.9 cm. Exposure of the mesh without granulation tissue occurred in 6 (11%), responding to exposed mesh excision in the office or operating room. Granulation tissue reaction to the mesh occurred in 2 (4%). Dyspareunia was reported by 2 (4%). Other complications included perineal hematoma (1). No bowel or bladder perforations occurred.

Interpretation of results

Identification and treatment of vaginal vault prolapse is a challenge to the pelvic surgeon. The Apogee technique is a standardized and simple approach, which utilizes mesh to re-suspend the apex and provide posterior wall support. Anatomic restoration was very physiologic in terms of POP-Q parameters, at least in the short term. Mesh erosion/exposure rates are similar to other polypropylene mesh techniques.

Concluding message

Vaginal vault and posterior vaginal wall support is satisfactorily restored with the Apogee system. The procedure is safe, but graft exposure may require revision with excision of the exposed mesh.