

## RESTORING THE STRENGTH OF THE WEAKENED SACROUTERINE LIGAMENTS (SUL) IN VAGINAL VAULT PROLAPSE AND REPAIR OF PELVIC FLOOR RELAXATION WITH THE USE OF POLYPROPYLENE MESH

Hypothesis / aims of study The sacrouterine ligament (SUL) complex and prerectal fascia attach at the perineal body, forming a single support unit preventing levator descent. The majority of patients with vault prolapse have descent and widening of the levator musculature. Existing surgical procedures address only the levator widening and vault support without repairing pelvic floor descent. These patients are a unique surgical challenge. We describe a new technique utilizing polypropylene mesh to repair the levator hiatus and prevent levator descent along with restoring the SUL complex in vaginal vault repair.

Study design, materials and methods A T-shaped soft prolene mesh is prepared. The two transverse arms are 4x1cm with a vertical segment of 3x6 cm. A 1-0 Vicryl suture is brought from outside the vaginal wall, inside the peritoneal cavity and passed through the ileococcygeus muscle including the origin of the SUL complex. The needle is passed through one arm of the T-mesh and a second bite of the SUL is taken. The suture is passed back through the vaginal wall 1 cm from the entrance. The maneuver is performed on the contralateral side fixing the two arms of the mesh and recreating the SUL complex in support of the cuff. The enterocele sac is then closed in standard purse string fashion. These sutures include the transverse segment of the mesh. The vertical segment of the mesh is then transferred to the distal vagina through a tunnel in the posterior vaginal wall and secured to the levator and pelvic floor musculature. The vault suspension sutures are tied providing depth and support. This prevents pelvic floor descent. The rectocele is repaired incorporating the edge of vaginal wall, and pararectal fascia proximally. The levator hiatus and the perineal body are repaired.

Results Between 2/2004 and 9/2004, we performed the above repair on 52 patients. The mean age was 67 years (range 40 to 86). 36 patients underwent concomitant sling procedure, 32 cystocele repair, and 20 vaginal hysterectomy. There were no intraoperative or major postoperative complications. There have been no vault or posterior compartment prolapse recurrences to date. Mean QoL score was between delighted and pleased at short-term follow-up of 3.5 months.

Interpretation of results More importantly, the pelvic floor descent has been repaired on all patients. We have had no mesh erosion or vaginal infections.

Concluding message We report on a new technique that recreates the SUL complex in support of the vaginal vault with the aid of prolene mesh. It is the first procedure described to reconstruct the pelvic floor in attempt to prevent pelvic floor descent.

