

REVISIONS OF SYNTHETIC PUBOVAGINAL SLINGS: SIMPLE AND EFFICACIOUS APPROACH TO EARLY COMPLICATIONS

Aims of Study

Early postoperative urine retention or persistent stress urinary incontinence is an infrequent problem after placement of polypropylene pubovaginal slings. TVT and SPARC procedures place the sling under the urethra, with no tension and with minimal effect on the ability of the proximal urethra to open and funnel during voiding. This technique has led to a substantial decrease in urinary retention, demonstrated in the series of 404 patients who underwent midurethral suspension. Only 17 patients (4%) had postoperative voiding problems, and only two patients required urethrolysis to achieve normal voiding (1). This study describes novel and minimally invasive revision options in managing early complications of polypropylene pubovaginal sling placement.

Methods

Polypropylene sling placement was performed in 354 consecutive female patients from 1999-2003 by the same surgeon (164 TVT's and 190 SPARC's). Of these, 13 patients (4%) required early revision. 4 of 13 patients had initial concomitant genital prolapse repairs. 8 slings were revised for persistent SUI and 5 were revised for urine retention. All revisions were done within two weeks from the initial procedure and all were done as outpatients with local \pm IV sedation. Suburethral techniques are described for revision/adjustment of sling tension that make the need to redo or undo the entire operation unnecessary in many cases. For persistent SUI, the suburethral techniques involve either plication or excision of a short segment with end-to-end reapproximation. "Tandem" sling placement was required for persistent SUI when suburethral revision was not possible (5 of 13 patients). In all cases of urine retention, the mesh was easily loosened without the need to incise. When using the SPARC Sling, its resorbable tensioning suture facilitated loosening of the sling and prevented sling distortion during this non-invasive procedure. None of the revisions took longer than 30 minutes. Blood loss in all suburethral revisions was minimal.

Results

Follow-up ranged from 6 months to 2.5 years. All patients resolved their urine retention or persistent SUI after revision.

Conclusions

Postoperative problems with sling tension can be promptly and simply addressed in a minimally invasive manner, thus obviating the need to undo or repeat sling placement in most cases. If a repeat sling procedure becomes necessary, tandem sling placement provides a larger backboard of urethral support and should be considered in lieu of overlapping sling placement. Due to formation of a dense fibrous capsule over the polypropylene mesh, revisions are best performed within two weeks of the original surgery. The ability to perform revisions with ease further supports why pubovaginal slings composed of polypropylene are becoming the procedure of choice for the correction of SUI.