

532

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A NEW COST EFFECTIVE SURGICAL TECHNIQUE: TENSION FREE VAGINAL SLING IN TYPE II STRESS URINARY INCONTINENCE

Aims of Study

The purpose of this paper is to introduce to a new procedure for the surgical correction of Type II stress urinary incontinence based on a new surgical synthetic composite sling half reabsorbable. The procedure described herein seeks to address the main concerns that are inherent with the complications of urethral sling procedures using a synthetic prosthesis designed for the prevention of urethral obstruction, mesh erosion, extrusion, infection and potential nerve entrapment.

Methods

A new tension free support sling (TS) was designed and constructed in 1998 by Trabucco which would eliminate these inherent complications associated with traditional synthetic polypropylene prosthesis positioned underneath the urethra and bladder neck. The TS is a mesh composed of two different materials to repair adult female Type II SUI. The lateral aspects of the mesh are composed of a 2 cm width monofilament polypropylene mesh with a 1 cm absorbable monofilament. If a concomitant cystocele is present this is repaired first by using three or four layers of 3-0 Polydioxanone interlocking suture to approximate the outer bladder serous and pubocervical (endocervical) layer of the prolapsed urinary bladder wall in a layered approach, elevating the trigone as a pyramidal shape, to cushion the inferior portion the urinary bladder to allow the mesh to lie with flat position once placed underneath the urethrovesical area. The center of the TS is composed of absorbable monofilament material, which is aligned under the urethra to lie flat on either side from one arcus tendinous to the other with flat position underneath the destroyed or deficient periurethral fascia of the pubourethral ligament. 3 patients with GSI due to anterior vaginal prolapse IIa have been treated with this technique under spinal anesthesia

Results

This cost effective technique, performed in 3 patients in spinal anesthesia showed its simplicity and easy reproducibility. Advantages of this technique have been also the absence of pain and post operative irritative symptoms and the short hospital stay. In all patients incontinence has been cured, with no irritative symptoms onset at 9 month of follow up.

Conclusions

Tension-free Sling has been found easy for its reproducibility, effective with no morbidity enhancing a short hospital stay of 4 days after surgical operation. Absorption of the central part of the mesh seems to prevent from onset of low urinary tract irritative symptoms at long term follow up due to obstruction or periurethral inflammatory disease from heterologous materials. Fibrosis of the lateral sides of the mesh prevented from relapse of the anterior vaginal prolapse. Longer term follow up, however needs to be performed to confirm these promising findings.