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Singla A
Wayne State University

EARLY EXPERIENCE WITH NEW MALE SLING PROCEDURES FOR MALE STRESS URINARY INCONTINENCE (SUI)

Aims of Study

To study safety and efficacy of new male sling procedures for the treatment of male SUI.

Methods

Between May 2001 through March 2002, a total of twenty men underwent new InVance male sling procedure for SUI. The patients were given spinal anesthesia and placed in dorsal lithotomy position. A midline incision was made. The perineal dissection was carried out laterally to expose the periosteum of the descending ramus of pubic bone. Six titanium bone screws were drilled. Three on each side on the descending ramus using the straight InVance bone drill. The most cephalad pair of bone screws were drilled just lateral to the inferior border of the pubic symphysis. A 4x7 cm. cadaveric dermis graft alone or reinforced with fascia lata or silicone mesh was used as a graft material. One edge of the graft was then anchored to the bone by transferring the #1 prolene and thus was tied down onto the bone. Patients were then asked to cough and the tension was adjusted until no leakage was observed. This distance was marked onto the graft and the graft was then tied onto the contra lateral side at the marked site.

Results

Mean age was 65 years (range 20-78 years). Etiology of SUI was radical retropubic prostatectomy (RRP) in all patients except one who had neurogenic stress urinary incontinence. The duration of SUI has been 4.5 years (range 1-11 years) following RRP. Twelve of the twenty patients underwent collagen implant once or more than one injection. One patient also had an abdomino perineal sling placed prior to male sling and one had an infected artificial urinary sphincter removed prior to the male sling. Four patients had severe SUI (>5 pads per day) and 14 patients had moderate stress urinary incontinence (3 to 5 pads per day). Two patients had mild SUI (1 to 2 pads per day). The mean follow-up was four months (range 1-10 months). The average surgery time varied from 45 minutes to 90 minutes. Only cadaveric dermis was used as a sling material in eight patients and dermis reinforced with fascia in five. Allograft dermis alone or reinforced with the fascia lata or silicone mesh was used as graft material. A total of 75% (15) were cured or improved. Cure is defined as no leakage or improvement being more than 50% reduction in urinary leakage. Five patients out of twenty patients failed. Of these five patients, one patient was totally dry for the first three weeks and was then later converted to an artificial urinary sphincter. All patients voided spontaneously after removing the Foley catheter. There was no case of infection or erosion.

The total cost for the male sling kit was $1,865 excluding the cost of the graft material verses the total cost of the artificial urinary sphincter being $5,595. The average physician reimbursement by Medicare being $842 for male sling verses $942 for artificial urinary sphincter.

Conclusions

1. This minimally invasive procedure does appear to be a safe and effective alternative surgical treatment option for mild to moderate stress urinary incontinence.
2. A longer follow up is warranted to establish the durability of this novel procedure.
3. It does appear to be cost effective as compared to the gold standard artificial urinary sphincter.