

STRATASIS® SLING –IS IN-VIVO COLLAGENOLYSIS AFFECTING THE OUTCOME?

Hypothesis / aims of study

Suburethral slings provide the best long-term surgical outcome for patients with stress incontinence (1). No single material has been shown to be superior. A new sling material made from porcine small intestinal submucosa is now being used for the treatment of stress urinary incontinence (Stratasis ®, Cook Biotech). In this study we report the short and medium term outcomes from a series of patients who had a stratasis sling for stress urinary incontinence.

Study design, materials and methods

Since June 2003, 22 women with urodynamically proven stress incontinence underwent the Stratasis sling procedure at our institute.

The age range was 35-65.13 patients had pure stress incontinence. 9 patients presented with mixed incontinence.8 patients underwent previous surgical procedure for incontinence (n=5 had collagen injection and n=3 had MMK)

Results

All patients were followed up 4-6 weeks in the clinic to determine the actual state of dryness or incontinence.

Telephone questionnaires were done using the ICIQ(International Consultation on Incontinence Questionnaire).

The minimum followup was 3 months and the longest 15 months. Patients were considered to have failure if they noted true stress incontinence .Urgency with or without incontinence was not considered a failure of the operation if the stress incontinence had subsided after surgery.

Of the 22 patients 86% (n=19) were dry at 6 weeks post procedure .3 patients continued to have stress leak even at 6 weeks.

At 3 months 64% developed failure with recurrence of symptoms.40% of patients with mixed symptoms had persistent urgency/urge incontinenceand 4 patients developed de-novo urgency. Patients with low leak point pressures fared badly when compared with patients with high LPP.

There were no intraoperative complications and none of the patients developed post operative retention or voiding difficulties following removal of catheter on the first post operative day.

2 patients developed spontaneous haematoma at the suprapubic wound incisions which subsided with prophylactic antibiotics .This complication with SIS sling material has also been reported in another series.

None of the patients had any instance of graft erosion ,infection or extrusion.

Interpretation of results

In our series we have found that the long term results do not replicate the short term success. Increased collagen breakdown as a pathologic etiology of incontinence has been reported(2). Since SIS graft material is supposed to be remodelled and changed into host tissue after surgical placement it is possible that the inherent collagenolysis in stress incontinent women may be the reason for long term failures as the initial success could possibly be due to the mechanical support the graft provides but is not subsequently replaced adequately by the host collagen

Concluding message

Since the early success is not replicated in the long term we feel further studies are warranted before SIS can be used routinely for sling procedures.

References:

1 Female stress incontinence clinical guidelines panel summary report on surgical management of female stress urinary incontinence. J Urol 1997; 158:857-80.

2- Excretion of Collagen Derived peptides is increased in women with stress urinary incontinence. Neurourology & Urodynamics. 23:198-203(2004)