

FUNCTIONAL OUTCOMES FOR SURGICAL REVISION OF SYNTHETIC SLINGS PERFORMED FOR VOIDING DYSFUNCTION.

Hypothesis / aims of study

Synthetic slings (SS) are now the most common treatment for female stress urinary incontinence (SUI). Voiding dysfunction is a recognised complication of SS placement. The aim of this study was to evaluate the functional outcomes after sling revision for voiding dysfunction. Functional outcomes assessed were; persistent voiding dysfunction, recurrent SUI requiring further surgery, de novo symptoms of overactive bladder (OAB) and persistence of OAB symptoms which were present prior to initial SS placement.

Study design, materials and methods

We conducted a retrospective review of those women who underwent revision surgery of a SS at our unit, between 2000 and 2010 inclusive, for the indication of voiding dysfunction.

We defined voiding dysfunction as a persistently raised (immediate) post void residual of >150mls. All reported a change in voiding habits including prolonged voiding, positional voiding, hesitancy and straining. Many also reported a subjective increase in frequency/urgency.

The method of SS revision (simple division, partial excision or revision with a concomitant procedure to prevent recurrent SUI) was at the discretion of the operating surgeon. The patient review included demographics, a comprehensive medical history all surgical reports and a detailed proforma with details of lower urinary tract symptoms, physical findings and bladder diaries from the period before and after placement of the initial SS, and again subsequent to revision of the SS. Statistics were calculated using Fisher exact, Freeman- Halton extension for a 2 by 3 contingency table.

Results

Sixty three women underwent sling revision for the indication of voiding dysfunction. Three types of procedure were carried out; simple SS division, (46/63, 73%), partial excision of SS material (13/63, 21%) and either division or excision but with a concomitant procedure to prevent recurrent SUI, (4/63, 6%). The mean interval between initial placement and subsequent revision was 12.4 months. There were no intraoperative complications related to the revision surgery.

Table 1. illustrates the functional outcomes for each group subsequent to SS revision surgery.

	A. Surgical Revision of sling with concomitant procedure to prevent recurrent SUI N=4	B. Sling division N=46	C. Partial Sling Excision N = 13	P value Freeman halton extn fisher exact
Persistent Voiding dysfunction	2/4 50%	5/46 10.9%	1/13 7.7%	P= 0.09
Surgery for recurrent SUI	0/4 0%	1/46 2.2%	3/13 23.1%	P=0.04
OAB De Novo	1/4 25%	5/46 10.9%	2/13 15.4%	P=0.51
OAB Persistent	2/4 50%	14/46 30.4%	4/13 30.8%	P=0.72

Interpretation of results

The prevalence of persistent voiding dysfunction following SS revision was similar whether women had had division or partial excision of their SS, but was highest in those with a concomitant procedure to prevent recurrent SUI (5/46, 10.9% vs 1/13, 7.7% vs 2/4, 50%, p=0.09). The need for subsequent surgery for recurrent SUI was lowest in those who had a concomitant procedure. Either division or partial excision is effective at relieving the presenting symptoms, however, there was a higher proportion of the excision group who subsequently required further surgery for recurrent SUI (23% vs 2%, p = 0.04).

Concluding message

Sling division is as effective a treatment for post operative voiding dysfunction as partial SS excision, but with a much lower risk of recurrent SUI. A concomitant procedure to prevent recurrent SUI may increase the risk of persistent voiding dysfunction or irritative storage symptoms such as OAB.

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Is this a clinical trial?

No

What were the subjects in the study?

HUMAN

Was this study approved by an ethics committee?

Yes

Specify Name of Ethics Committee

Mercy Health Research Ethics Committee

Was the Declaration of Helsinki followed?

Yes

Was informed consent obtained from the patients?

Yes
