Evaluation of the clinical effectiveness of rectus fascial slings as a surgical intervention for stress urinary incontinence in women

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Overview:

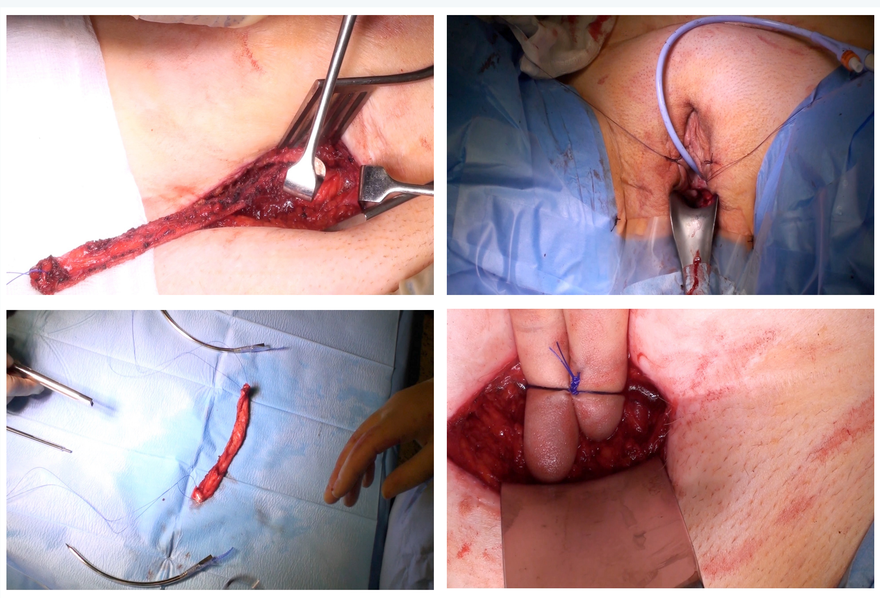
Following the high vigilance pause on vaginal mesh procedures in 2018, there has been a resurgence of interest in autologous rectus fascial slings (RFS) for the surgical treatment of stress urinary incontinence (SUI).

Methods:

We conducted a retrospective analysis of a prospectively acquired database of 57 consecutive women having an autologous rectus fascial sling to treat primary or recurrent stress urinary incontinence between 1st September 2007 and 28th February 2018.

Data was collected on patient demographics, pre-operative urodynamic findings, long term complications, and subjective outcome. Subjective outcome was assessed using a 5-Point PGII score and change in daily incontinence pad usage.

Long term complications assessed included: new onset need to intermittent self-catheterisation post RFS, new onset recurrent urinary tract infections and new onset frequency/urgency. Comparison in outcomes of RFS was made between pure SUI and sMUI as well as primary SUI/sMUI versus recurrent SUI/sMUI.



Results:

Table 1. PGII for SUI 12 months following RFS

Follow up time	SUI	sMUI	Primary SUI/sMUI	Recurrent SUI/sMUI
	Median, mean and range			
12 months	1,1.2, 1-3	1, 1.125, 1-2	1, 1.2, 1-3	1, 1.4, 1-4

Table 2. Daily pad usage prior to RFS and post RFS procedure

Follow up time	Prior to RFS	Post - RFS
	Median, mean and range	
6 months	5, 5, 2-10	0, 1.65, 0-10

Table 3. Long term post-operative complications

	ISC	UTI	Frequency/Urgency
	N (%)		
SUI	3 (5.26)	2 (3.51)	4 (7.02)
sMUI	5 (8.77)	1 (1.75)	7 (12.28)
Overall	8 (14.04)	3 (5.26)	11 (19.30)
Primary SUI/sMUI	1 (1.75)	0 (0)	4 (7.02)
Recurrent SUI/sMUI	7 (12.30)	3 (5.26)	7 (12.30)

Key Considerations:

- Rectus fascial sling improved or very much improved SUI in 89% of women with primary or recurrent SUI/sMUI with a mean PGII of 1.36 12 months post-surgery.
- No statistically significant differences were observed between those that had primary SUI/sMUI and recurrent SUI/sMUI
- No statistically significant differences were observed between those that had SUI and sMUI

Conclusion:

Rectus fascial sling is a highly effective treatment for women with SUI and sMUI; median PGII at 12 months post-surgery was 1 (mean 1.36). Long-term adverse effects are acceptable given that 68% of the group had previous SUI/sMUI surgery and include the need to ISC in 14%, recurrent UTIs in 5% and new onset bothersome frequency urgency in 19%.

Glossary:

RFS – Rectus Fascial Sling
SUI – Stress Urinary Incontinence
MUI – Mixed Urinary Incontinence
sMUI – stress predominant Mixed Urinary Incontinence
PGII – Patient Global Impressions of Improvement

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