# IS THERE A DIFFERENCE IN OUTCOME BETWEEN EARLY VERSUS DELAYED REMOVAL OF SUBURETHRAL MID-URETHRAL SLING?

### Hypothesis / aims of study

We evaluated the differences in presentation and outcomes of early (<5 years) versus delayed (> 5 years) SSR in women with mid-urethral sling (MUS) complications requiring surgical removal.

## Study design, materials and methods:

A prospectively maintained, institutional review board approved, database of consecutive non-neurogenic women who underwent SSR for MUS complications and were followed for 6 months minimum was reviewed. Exclusion criteria included women with existing vaginal mesh in place, those who underwent concomitant vaginal mesh removal or concomitant surgery, or had 2 MUS removed. All MUS excisions were performed vaginally under general anaesthesia with the aim of removing as much MUS as possible. [1] Indications for SSR and outcomes at the last visit were classified based on patient self-reporting.

## Results:

From 2005 to 2015, 116 of 360 women were included in the final analysis. Patients were divided into 2 groups: Group 1: N= 73 early sling removal (< 5 years from placement of sling) and Group 2: N= 43 delayed sling removal ( $\geq$  5 years from placement of sling). Baseline characteristics were similar in these 2 groups except for the median follow-up (significantly longer in Group 1 at 20 months over 13 months for Group 2). There were no differences in self-reported presenting symptoms between groups. All women reported significant improvement in their presenting symptoms in both groups except for urinary urgency incontinence and urge predominant mixed incontinence in Group 2 (Table 1). Women in Group 1 required significantly higher number of bulking agents and overall interventions for SUI than patients in Group 2 (p= 0.02 and 0.03 respectively).

#### Interpretation of results

A common concern is that women who undergo delayed suburethral synthetic sling removal (SSR) will have a worse outcome. We observed that women who underwent a delayed removal of sling > 5 years after the original sling placement still benefited from its removal. However, urge incontinence and urge predominant mixed urinary incontinence less likely to improve in these women than when the removal was done at an earlier stage.

#### Concluding message

Delayed removal of sling > 5 years after placement can still lead to significant improvement in the majority of symptoms related to MUS complications except for storage symptoms.

	Group 1 (<5 years) N=73			Group 2 (>5 years) N=43		
	Pre-op	Post-op	р	Pre op	Post op	р
Voiding dysfunction/incomplete emptying	55	7	< 0.001	36	3	< 0.001
Dyspareunia	42	16	< 0.001	27	9	< 0.001
Pelvic pain	52	21	< 0.001	34	11	< 0.001
Pure SUI	7	5	NS	8	2	NS
Combined UUI and urge predominant MUI	45	13	0.0001	24	11	NS
Recurrent UTI	44	14	< 0.001	27	10	< 0.0002
Patients with multiple complains (>1)	71	32	< 0.001	42	17	< 0.001

Table 1: Patient self-reported outcome before and after sling removal (at last visit) for complications in each group.

References 1. Dillon BE, Gurbuz C, Zimmern PE: Canadian Journal of Urology 19:6424, 2012

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