

VOIDING SYMPTOMS FOLLOWING MIDURETHRAL SLING REMOVAL

Hypothesis / aims of study

To determine if timing and type of surgical intervention for voiding dysfunction following midurethral sling (MUS) impacts symptom improvement.

Study design, materials and methods

This is a retrospective review of patients presenting to a urogynecology clinic between January 2010 and April 2013 for MUS-related concerns. All patients undergoing either sling release or removal for the indication of voiding dysfunction were identified by CPT codes and review of internal medical records included. Voiding dysfunction was defined as the inability to completely empty the bladder or new onset straining, hesitancy, or interrupted flow. Patients undergoing sling revision for indications of pain or mesh exposure were excluded. Demographic information was collected, as well as perioperative details including type of sling placed, post-void residuals (PVR), and interval of time between sling placement and revision were collected as well as type of revision performed. We defined a sling release as the incision of the sling or removal of less than 1cm of mesh. All others were considered sling removals. Summary statistics were calculated for the patient population. Continuous variables were compared using Student's t-test or Wilcoxon rank sum; proportions were compared using Pearson's chi square or Fisher's exact test. A logistic regression model was used to assess for interaction between type of revision and time between placement and revision and the primary outcome measure. A p-value of 0.05 was considered significant.

Results

Over the study period, 73 women met inclusion criteria. The majority of patients were Caucasian (97%), the mean age was 57 years (SD ± 12.0), median parity was 2 (range 0, 6), and the mean BMI was 30.2 kg/m² (SD ± 6.2). 58% had a prior retropubic MUS, 29% had a transobturator MUS, and 8% had a mini sling. Mixed urinary incontinence was diagnosed in 46% of patients prior to sling placement. The median pre-sling revision PVR was 150ml (range 10, 2,500). Fifty-four women (79%) had improvement in their voiding function following sling revision. A surgical revision was performed within one month of the index procedure in 40% of patients; the remaining 60% had revision >1 year after sling placement (range 1 – 6 years). There was no difference in improvement of voiding symptoms after sling release versus removal (78.4% vs 80.7%, p=0.818). There was no association between procedure and symptom improvement when accounting for time interval between the index surgery and revision (p=0.933). Among those who had intervention within 1 month of the sling placement, 77.8% with sling release had improvement in symptoms compared to 80.0% of those with sling removal (p=0.915). Among those with intervention greater than 1 year following sling placement, there was also no difference in improvement (80.0% vs. 81.0%, p=0.950).

Interpretation of results

Most women with voiding dysfunction following MUS placement improve with sling revision. Improvement is similar regardless of type of revision (sling release versus removal) and does not appear to be impacted by time between sling placement and revision.

Concluding message

Similar improvements in voiding dysfunction attributable to MUS placement are seen regardless of surgical procedure or time since the sling procedure.

Disclosures

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