

## COMPARISON OF SHORT AND LONG TERM OUTCOMES IN A PATIENT POPULATION UNDERGOING RETROPUBIC MID-URETHRAL SLING PLACEMENT

### Hypothesis / aims of study

Retropubic mid-urethral polypropylene slings (MUS) have been shown to be a safe and efficacious procedure for the treatment of female stress urinary incontinence (SUI). Few studies have evaluated the long-term surgical outcomes, and to our knowledge, there are no studies that have examined a comparison between short- and long-term outcomes in the same patient cohort. We examined the durability of MUS by comparing outcomes in a fixed patient cohort at approximately 12-month and ≥60-month follow-up.

### Study design, materials and methods

An ongoing, prospective database of all consecutive patients who underwent SPARC sling placement from October 2001 to August 2009 was reviewed. Each patient was mailed post-operative questionnaires annually to assess outcomes. We selected those patients that had answered both an “early” post-operative questionnaire *and* a follow-up questionnaire at a minimum of 60 months following sling placement. We compared these results to evaluate for any differences between short- and long-term surgical outcomes. Success was defined as ≤1 incontinence episode/week and/or ≥70% patient-reported improvement.

### Results

We identified 78 patients who fit the criteria described above. The mean/median follow-up at initial questionnaire was 13.0/9.0 months versus 67.1/61.0 months for the most recent questionnaire ( $p < 0.0001/0.0001$ ). A significant decrease in SUI severity was noted at both short- and long-term follow-up as compared to pre-operative SUI (Chart 1). Significant decreases were seen at long-term follow-up in all of the following: completely dry rate, ≤1 incontinence episode/week, ≥70% patient-reported improvement in patients with >1 incontinent episode/week, overall success, and satisfaction (table 2). Of the 29 patients who reported complete dryness at early follow up, 12 (41.4%) developed recurrent SUI at extended follow-up. Seventy-six percent (41/54) of the patients who initially had <1 incontinence episode/wk remained at a similar level of continence at extended follow-up. Long-term success was durable in 85.2% of those who initially reported success.

### Interpretation of results

The MUS provides significant reduction of severity of SUI symptoms in the short- and long-term follow-up periods. Our data clearly demonstrates deteriorating outcomes with longer follow-up with regard to dry rate, patient-perceived improvement and satisfaction, and success as defined herein. Although outcomes are significantly worse with longer follow-up, the overall success rate for MUS remains at 64.5%. Additionally, 85.2% of patients who were initially considered successful continued to experience durable outcomes at ≥60 months.

### Concluding message

Although outcomes following MUS placement appear to decline over time, the MUS still provides considerable improvement in SUI symptoms compared to pre-operative symptoms that can be durable in a significant proportion of patients. Proper patient counseling is imperative in order to provide patients with realistic expectations following their surgery.

Do you leak urine when you cough, sneeze, or perform physical activities?

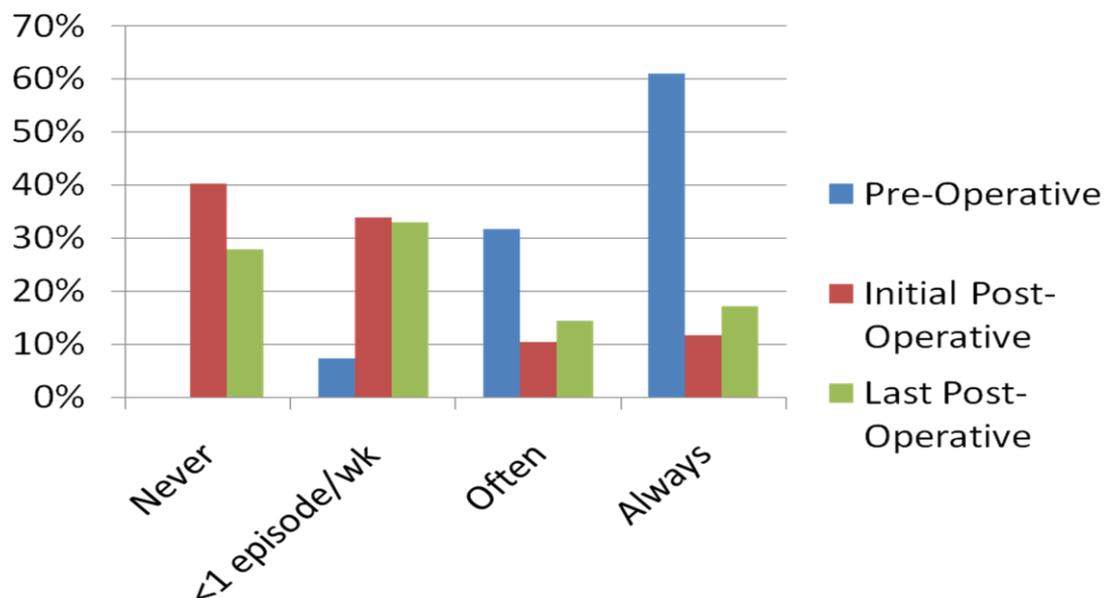


Table 1

Dry	41.9%	27.6%	<0.0001
<1 incontinent episode/wk	77%	60.5%	<0.0001
≥70 improvement only	4.8%	4.0%	<0.0001
Success	81.8%	64.5%	<0.0001
≥70% satisfaction	75.0%	63.6%	<0.001

<i>Specify source of funding or grant</i>	NONE
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Institutional Review Board
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes