Assessment of voiding after sling: a randomized trial of 2 methods of postoperative catheter management after midurethral sling surgery for stress urinary incontinence in women

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Objective

The objective of this study was to compare the backfill standard voiding trial (SVT) that relies on the assessment of voided volume to subjective patients' evaluation of their voiding based on the assessment of the force of stream (FOS) after an outpatient midurethral sling surgery.

Study Design

This double-blinded randomized trial included patients undergoing an outpatient midurethral sling surgery without any other concomitant surgery. Participants were randomized to either the SVT group or to the FOS group. The primary outcome was the rate of catheterization any time up to 6 weeks after surgery. Both groups underwent the same backfill voiding trial protocol postoperatively. Measurements of the voided amount, postvoid residual, and the response to the FOS visual analog scale were collected. The criteria for passing the voiding trial in the SVT group was voiding at least two-thirds of the instilled amount; while the criteria for passing the trial in the FOS group was assessment of FOS at least 50% of the baseline, regardless of the voided volume. Participants were interviewed preoperatively and 2-4 days, 7-9 days, and 6 weeks postoperatively. All postoperative interviews included assessments of pain, tolerance of physical activity, urinary FOS, as well as satisfaction with the surgery. Validated questionnaires (Incontinence Severity Index and Urinary Distress Inventory, short form) before the surgery and 6 weeks after were used to evaluate urinary symptoms.

Results

A total of 108 patients were enrolled and randomized, and 6-week follow-up data were available for 102 participants (FOS 50, SVT 52). The 2 groups were similar with respect to demographic characteristics and urinary symptoms. The incidence of catheterization was also similar between the groups (FOS 13 [26%], SVT 13 [25.5%]; $P = .95$). Amount voided had a moderate correlation with FOS assessment (Spearman rho 0.5; $P < .001$). There was no significant difference in mean catheter days, pain scores, Incontinence Severity Index, and Urinary Distress Inventory, short form scores between the 2 groups. Of the patients who were discharged home without a catheter in either group none required catheter reinsertion within 6 weeks after the surgery.

Conclusion

Patient's subjective assessment of the urinary FOS correlated well with the measured voided amount and no difference in catheterization days was noted between the subjective and objective assessment of voiding. Thus subjective evaluation of the FOS is a reliable and safe method to use after outpatient midurethral surgery.