

PATIENT CHARACTERISTICS PREDICTING EARLY OBJECTIVE FAILURE OF RECTUS FASCIA SUBURETHRAL SLINGS

Aims of Study

Annually, thousands of women undergo suburethral slings for stress incontinence. Risk factors for surgical failure, however, have not been clearly demonstrated. The purpose of this study is to determine patient characteristics which predict early failure of suburethral sling procedures for stress urinary incontinence (SUI).

Methods

We carried out a retrospective chart review of all patients undergoing autologous rectus fascia suburethral slings for stress urinary incontinence at Loyola University Medical Center from July 2000 through June 2002. The outcome of surgery was evaluated three months after surgery by urodynamic testing in the standing position to 300cc bladder volume or maximum cystometric capacity (MCC), which ever was less. Failure was defined as *any* urodynamic stress incontinence on CMG. Patient demographic and medical information were recorded. Predictors of objective failure at three months were identified using logistic regression. Mann-Whitney tests were used to compare continuous variables and chi-squared tests of proportions used to compare categorical variables with results considered significant at the 5% level.

Results

162 sling procedures were carried out during the specified time period under the supervision of two surgeons. Forty-four patients did not undergo CMG at 3 months: 22 were lost to follow-up, 8 had a sling release for urinary retention, 2 had reoperation for persistent SUI, 3 had detrusor overactivity treated prior to the 3 month visit, 3 had urine infections the day of 3 month visit, 2 had grossly positive cough stress tests, 2 had reoperations for other than continence reasons and 2 declined testing. A total of 119 underwent objective testing at three months post-operatively. Twenty-four women (20%) had an objective failure and 95 (80%) had an objective success. The women had a median age of 63 (19-89) and a median parity of 2 (0-8). All but three women were Caucasian (97.5%). Eighty-five percent of women were postmenopausal and 50% of those were on hormone replacement therapy. Twenty five percent of women had a prior surgery for SUI. Forty-four percent had concomitant surgery for pelvic organ prolapse. Patient age ($B=0.55, p=0.03$), prior incontinence surgery ($B=1.12, p=0.045$) (Figure 2), and not having concomitant pelvic organ prolapse surgery ($B=1.28, p=0.01$) independently predict early failure. Patients that had early success of suburethral sling surgery (by CMG) had a mean age of 60 as compared to those who had early failure, with a mean age of 70 years old (Figure 1). Patients who had an objective success from the sling procedure were less likely to have never been operated on (Figure 2a). Likewise, patients who had sling failures were more likely to have had a previous incontinence surgery (Figure 2b). Parity, hormonal status, ability to void prior to leaving the hospital, and surgeon had no effect on early failure.

Conclusions

Parity, hormonal status, prior hysterectomy, ability to void prior to leaving the hospital and surgeon had no effect on chances of early sling failure. Increasing age, prior incontinence surgery, and not having concomitant prolapse surgery were independent predictors of early sling failure in this series.

Figure 1: Patient Age and Objective Cure After Suburethral Sling

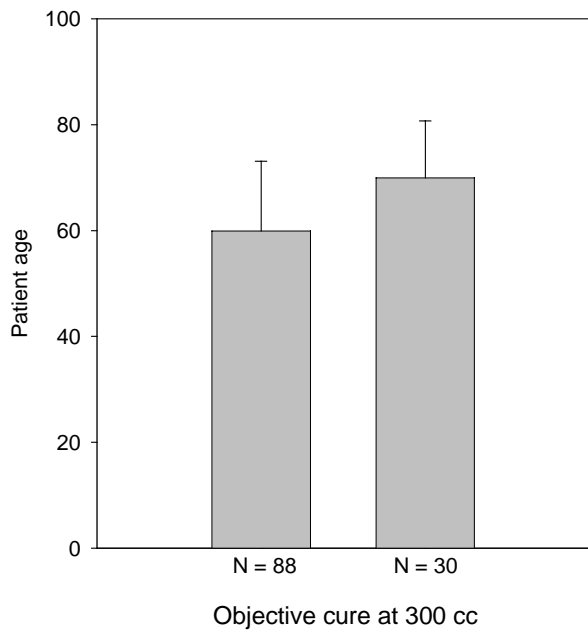


Figure 2a: Prior Surgery and Rectus Sling Success at 3 months

Objective Cure at 3 Months

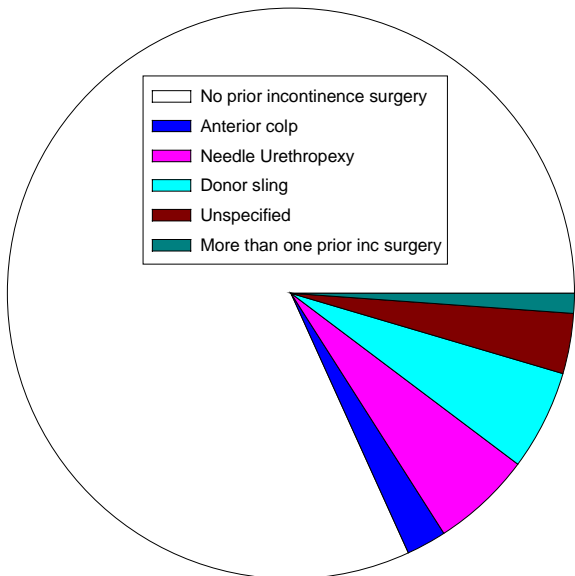


Figure 2b: Prior Surgery and Rectus Sling Failure at 3 months

Objective Failure at 3 Months

