

11 Promis score changes in stress urinary incontinence treated with pessary versus retropubic midurethral sling



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OBJECTIVES: Stress urinary incontinence (SUI) is the most common form of urinary incontinence in perimenopausal patients and has negative impacts on quality of life. Patient Reported Outcome Measurement Information System (PROMIS) surveys were used to evaluate the effect of treating SUI with pessary or surgery on depression, social functioning, physical functioning, and sleep disturbance. The objective of this study is to evaluate PROMIS scores before and after intervention in women with SUI. Based on pelvic organ prolapse data, it is hypothesized that quality of life measures would improve compared to baseline in patients managed with surgery versus pessary.

MATERIALS AND METHODS: Subjects with SUI were identified from an office's pessary patient panel and CPT code 57288. A chart review was conducted looking at demographic data, comorbidities, pessary specific information such as size and type, and procedure information such as length, blood loss, and post-operative healing. These data were combined with PROMIS data which patients filled out at each visit. Subjects were classified as 1) treated with a pessary only, 2) retropubic midurethral sling procedure only, or 3) crossing over from pessary to surgery. Patients were excluded if they did not fill out two or more PROMIS surveys consisting of baseline and follow up. PROMIS data were analyzed using the General Estimating Equation Model and then adjusted for covariates.

RESULTS: 223 subjects receiving treatment for SUI during the study period were identified. 35 were rejected due to lack of PROMIS data. 95 were characterized as pessary only, 71 were classified as retropubic midurethral sling only, and 22 as crossover. The surgery group had a slightly lower BMI, comorbidity score, and mean age. Baseline scores for depression were lower (indicating fewer symptoms of depression) in the surgery group (45.5) compared to baseline of the pessary group (48.6) and the crossover group (47.7). Unadjusted analysis of PROMIS depression scores showed the greatest improvement in the surgery group (decreased to a nadir of 42.4), while depression worsened in the pessary group (increased to 51.4, with $p=0.0047$ between all groups). Social scores were higher in the surgery group at baseline and improved after surgery, indicating more satisfaction with social roles. Physical functioning and sleep measures were not different across groups. When adjusting for covariates (BMI, gravidity, parity, and comorbidities), only social scores were different ($p=0.0218$). BMI had significant effects on social and physical function scores.

CONCLUSION: PROMIS quality of life measures demonstrated an improvement in social function and depression scores in subjects treated with retropubic midurethral sling versus pessary.

DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIPS:

Jordana L. Gilman: Nothing to disclose; Paula J. Doyle: Nothing to disclose; dongmei li: Nothing to disclose; Jenifer N. Byrnes: Nothing to disclose; Derrick J. Sanderson: Nothing to disclose; Sara Peterson: Nothing to disclose; Erin Duecy: Nothing to disclose.

12 Frailty impacts on treatment trends and perioperative urologic morbidity among older women undergoing procedure-based treatment for urinary incontinence



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OBJECTIVES: Frailty increases with aging and may be a predictor of urologic complications after procedures for urinary incontinence (UI) treatment. We aim to explore the association between frailty and treatment trends and perioperative urologic morbidity among older women after procedure-based UI treatments.

MATERIALS AND METHODS: We analyzed claims data from a 5% national random sample of Medicare beneficiaries provided by the Centers for Medicare and Medicaid Services to include women undergoing a procedure-based intervention for UI between 2011-2018. Procedures included were midurethral/fascial slings, periurethral bulking, and Burch colposuspension for stress urinary incontinence (SUI); and sacral neuromodulation, intravesical Botox, and posterior tibial nerve stimulation for urgency urinary incontinence (UUI) and the overactive bladder (OAB) syndrome. A Claims-based Frailty Index (CFI) was applied to identify frailty within the 12 months prior to the date of the intervention. The CFI score was dichotomized: 'Frail' defined by CFI score ≥ 0.25 and 'Non-Frail' by CFI score < 0.25 . Demographic and clinical characteristics were abstracted from the analytical file on the date of the intervention. Post-procedure urologic and surgical outcomes that occurred within the 12-month period after the index procedure were also abstracted. Univariate and bivariate analyses stratified by frailty status evaluated differences in demographic and clinical characteristics. Trends of UI interventions performed were compared based on frailty status. Multivariable analyses were performed to identify the relationship of frailty on post-intervention urologic/surgical outcomes and the independent effects of age, race, and region.

RESULTS: 21,783 women had a CFI-score and underwent a UI intervention between 2011-2018. The mean age was 72 ± 11 years. The majority of women were White (90.5%). 3,826 had CFI ≥ 0.25 and thus classified as 'Frail'; 17,957 had CFI < 0.25 and was classified as 'Non-frail'. Slings were the most common procedure performed in this cohort (44%). Frail women with stress urinary incontinence have 2.5 higher odds of having periurethral bulking compared to other SUI interventions. Frail women with UUI/OAB have 1.2 higher odds of having sacral neuromodulation in comparison to other interventions. Urologic complications within 1 year of surgery were identified in 18,198 (83.5%) of subjects. Frail women had 1.63 higher odds of having a urologic complication, 95% CI [1.47, 1.82], $p < 0.0001$. The significant impact of frailty on presence of urology complications of UI procedures did not change after considering age, race, or region.

CONCLUSION: Frailty pre-existed procedure-based treatments for urinary incontinence in 17% of older women. While minimally invasive procedures were most commonly performed, pre-existing frailty resulted in higher rates of urologic complications.

DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIPS:

Candace Parker-Autry: Nothing to disclose; Tom Gregory: Nothing to disclose; Charles Scales: Nothing to disclose.