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## **Pessary Use in Urology Clinics**

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## **Title: Pessary Use in Urology Clinics**

**Introduction:** Pessaries are a non-invasive treatment option for patients with pelvic organ prolapse (POP) or stress urinary incontinence (SUI). There is currently limited data regarding pessary usage among urology patients. The aim of this study is to determine the patient characteristics that predict long term pessary usage versus surgical intervention.

**Methods:** A 10-year retrospective review of pessary usage in women with either SUI or POP was performed. Patients were stratified into pessary longevity of less than or greater than one year. Quality of life measures before and after pessary use included pads per day, incontinence symptom index (ISI) scores, and pelvic organ prolapse distress inventory-6 (POPDI-6) scores. A comparison of study groups was adjusted for the following covariates: age, body mass index (BMI), initial pelvic organ prolapse quantification (POP-Q) score, race, smoking status, presence of concomitant stress urinary incontinence, diabetes mellitus, cardiovascular disease, and stroke. Multivariate logistic regression was used to compare the two groups while accounting for covariates.

**Results:** A total of 321 women with POP and/or SUI were managed with pessaries between 2012 and 2022. The median patient age was 70 (IQR 61-79) and the most common POP-Q stage was a 2, 42.2% (n=132), with 55.5% of patients reporting SUI (n=177). Pad use was documented in 56% of patients. Median pad use pre-pessary was 2 (IQR 0-3), post-pessary was 1 (IQR 0-3). Median ISI score pre-pessary was 15 (IQR 8-24), post-pessary was 11 (IQR 6-19). Median POPDI-6 score pre-pessary was 8 (IQR 4-12), post-pessary was 4 (IOR 1-9). 116 patients (36.1%) underwent POP or SUI surgery. Older patients and individuals without SUI were more likely to keep the pessary for at least one year, OR 1.03 and 1.72, respectively.

**Conclusions:** Pessary usage provides strong statistical improvement in pad usage, ISI scores, and POPDI-6 scores. Younger patient age and stress incontinence are strongest predictors of patient transition from pessary usage to surgical intervention. More studies are needed to determine the pessary type that predicts highest patient satisfaction.