

**Pre-operative Stents and Previous Cystoscopy Associated with Decreased Emergency Department Visits for Stent Colic**

**Introduction and Objective:** Ureteral stents are commonly used in the management of renal and ureteral calculi. Stent-related colic (SRC), a frequent complication of stent placement, can greatly decrease a patient's quality of life. Many studies have investigated ideal stent properties and medical prophylaxes, however the objective of this study is to expand on predictors of stent colic. More specifically, this study focuses on patient-specific characteristics that predispose a patient with SRC to present to the emergency department (ED).

**Methods:** We reviewed the records of all patients who underwent cystoscopy for stent placement or exchange at a single institution from December 2019 to January 2021. Patients were classified into two groups: (1) those who visited the ED within 90 days postoperatively for SRC and (2) those who did not or visited the ED within 90 days postoperatively for issues not related to stent colic (NSRC). Patient demographics and relevant clinical data were collected from the electronic medical record.

**Results:** 139 patients were included in this study. 45 patients visited the ED at least once within the 90-day postoperative period, and 21 patients met criteria to be defined as SRC. No demographic differences were found. Significantly more patients in the NSRC group had a history of cystoscopic/endoscopic procedures compared to the SRC group (57.6% v 28.6%,  $p=0.020$ ). Additionally, a higher proportion of patients in the NSRC group had preoperative stents compared to the SRC group (42.4% v 9.5%,  $p=0.004$ ). No other preoperative medical differences were found.

**Conclusions:** Stent-naïve patients and those without a history of cystoscopic procedures were significantly more likely to present to the ED post-operatively with complaints of SRC, suggesting a need for greater counseling and close postoperative monitoring among these patients. These findings are the first to explore patient characteristics in relation to SRC and should be studied further.