

SIGNIFICANCE OF PERSISTENT ASYMPTOMATIC MICROSCOPIC HEMATURIA ONE YEAR AFTER ROBOTIC PROSTATECTOMY: A REVIEW OF CLINICAL AND ENDOSCOPIC FINDINGS

Ceciliana De Andino MD¹, Héctor López-Huertas MD¹, Ronald Cadillo-Chávez MD² and Ricardo Sánchez-Ortiz MD¹

¹University of Puerto Rico and Robotic Urology and Oncology Institute, San Juan, PR; ²Robotic Urology and Oncology Institute, San Juan, PR

Introduction and Objectives: Occasionally patients exhibit microscopic hematuria (MH) which persists 1 year after robotic prostatectomy. The clinical significance and predictors of MH in this setting have not been reported.

Methods: 453 Hispanic patients were identified in our prospective database who underwent robotic prostatectomy (RP) for cancer by a single surgeon. Follow-up beyond 1 year was available in 300 patients. Men with preoperative MH due to a history of bladder cancer (2) or renal cancer (1) and 2 patients who underwent bladder stone removal with RP were excluded. Patients were seen at 2 months (mo.) with a PSA and urinalysis and then every 4 or 6 mo. depending on their recurrence risk. MH was defined as 3 red blood cells per high power field in one urinalysis in the absence of an obvious benign cause. If MH was present after 6 mo., a CT or MR urogram was obtained if no preoperative renal imaging was available. If MH persisted after 1 year, all patients underwent a cystoscopy and upper tract imaging. Clinical and endoscopic findings were evaluated.

Results: Of 300 men with a median follow-up of 25.2 mo., MH beyond one year was present in 8.7% (26/300) of patients. CT or MR findings included renal calculi (1) and simple cysts (5/26). Cystoscopic findings included incidental fossa navicularis (1/26) and bulbar strictures (1/26). Clinical variables that correlated with the presence of MH in univariate analysis included a history of a postoperative leak (11.5% vs. 1.1%, $p < 0.01$), pathologic stage T3a/3b (14.9% vs. 6.9%, $p < 0.05$), a positive surgical margin (22.6 vs. 7.1%), and a history of postoperative radiation (21% vs. 8%, $p < 0.03$). In multivariate analysis, a history of a leak was the only variable predictive of MH (Odds Ratio: 6.64, 95% Confidence Intervals: 1.45 to 30.5). No other factors correlated with MH including BMI, age, PSA, preoperative International Prostate Symptom Score, prostate size, history of diabetes, hypertension, or smoking, blood loss, incontinence, bladder neck scar, perineural invasion, or biochemical failure.

Conclusions: Asymptomatic microscopic hematuria may persist in 8.7% of patients 1 year after prostatectomy and is independently associated with a history of an anastomotic leak (Odds ratio: 6.64). While a standard hematuria evaluation is warranted for these men, patients could be reassured that a life-threatening finding is unlikely.