The Endourological Society 2020 Summer Student Scholarship Project Summary
Student: Bertie Zhang
Mentor: Dr. Majid Eshghi, M.D.
Home Institution: New York Medical College/Westchester Medical Center

I would like to express my utmost gratitude to the Endourological Society for this incredible opportunity to contribute to urological research that offers new avenues towards improving the lives of patients. This experience not only allowed me to explore an exciting topic, but also played a large role in fueling my pursuit of a career in urology. In addition, I would like to extend my deepest appreciation to my mentors Dr. Majid Eshghi and Dr. Sameh Naim, as well as the Society for their invaluable support and insight throughout the span of this project.

Title

Feasibility of flexible ureteroscopy in an office setting for surveillance of endoscopically treated upper tract urothelial carcinoma (UTUC).

Body

Upper tract urothelial carcinoma (UTUC) is often diagnosed at higher incidences of tumor invasion compared to bladder. Conservative treatment of low-grade UTUC is practiced in patients with solitary kidneys and comorbidities. Endoscopic surveillance in the operating room is one component of follow-up which affects patient compliance that could delay detection of recurrence or advanced disease. Herein, we present our experience with office ureteroscopy as part of the surveillance protocol for patients undergoing conservative management of UTUC.

Our recommended technique of extended ureteral orifice meatotomy has allowed ureteroscopy to be performed in the office setting with intravesicular lidocaine without sedation. A linear incision ~2cm is made over a dual lumen catheter or one step 6-12 ureteral dilator, making a patulous orifice. A double J stent is left in place for 3 weeks for mucosal healing. In comparison to ureteroscopy under anesthesia, office ureteroscopy eliminates anesthesia, has lower costs, and is well tolerated.

Methods

Retrospective chart review was performed on 15 patients between 2009-2021, with a history of UTUC who were managed with complete endoscopic resection and intracavitary instillation of chemotherapy. The tumor pathologies of the cohort were mostly low grade (80%) with some high grade UTUC (20%). 3 patients had solitary kidneys. 6 patients had percutaneous resection of renal pelvis and upper ureteral tumors, while 9 patients had a ureteroscopic procedure for tumor ablation/resection.

A subgroup of 10 patients had extended ureteral orifice meatotomy to facilitate office ureteroscopy surveillance and/or free reflux of intravesical chemotherapy, there was no incidence of clinical pyelonephritis or any untoward complications, although it was challenging in 1 patient with a large middle prostatic lobe. Among patients who had office ureteroscopy surveillance, a recurrence was detected in 5 patients, and the rest remained recurrence-free for at least 2 years from original diagnosis. Among patients that had recurrence, 3 had minor recurrence or residual that were managed endoscopically without further recurrence for 2-5 years. 2 patients who previously refused radical nephroureterectomy (RNU) developed extensive recurrences and eventually proceeded with RNU.

Conclusions

Given the ability to detect recurrence, provide adequate visibility, and no obvious complications, our data suggests that office ureteroscopy can be a feasible method of surveillance for patients with conservative management of UTUC.