



Endourology

Innumerable Condyloma Acuminatum Tumors of the Bladder

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ABSTRACT

Condylomata acuminata caused by human papillomavirus (HPV), a sexually transmitted virus, are rarely seen beyond the external genitalia and anal region. Here, a patient with innumerable condyloma acuminatum of the bladder is presented. Attempted surgical resection was performed and intraoperative photographs are presented.

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Introduction

Condyloma acuminata, commonly known as genital warts, are viral lesions attributed to human papillomavirus (HPV). Lesions are usually found on the external genitalia and anus. It is possible for lesions to extend into the urinary tract, although this is rare, with only a handful of cases reported in the literature. Here we present a rare case of innumerable condyloma acuminatum of the urinary bladder, without external lesions, and with high-resolution intraoperative images.

Case presentation

A 30-year-old African American woman presented to her urologist complaining of urinary frequency, urgency, and nocturia up to three times per night. History taking revealed stress incontinence and seven urinary tract infections within the year before presentation. She denied unintentional weight loss or other constitutional symptoms. Physical exam was unremarkable. A recent urine analysis was negative.

The patient's past medical history was fairly complicated and included hypertension, lupus, pulmonary embolism/cerebrovascular

accident, anti-phospholipid syndrome, and HPV. She was on immunosuppressive therapy for lupus and anticoagulation for history of pulmonary embolism and cerebrovascular accident secondary to anti-phospholipid syndrome. She also had a history of HPV-positive genital and anal warts. Four years prior to presentation, she underwent removal of one genital wart and one anal wart that were

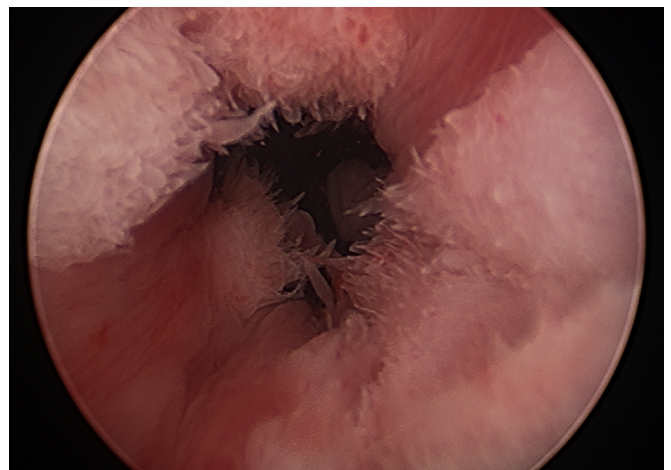


Figure 1. Cystoscopic view of the proximal urethral and bladder neck involved with condyloma.

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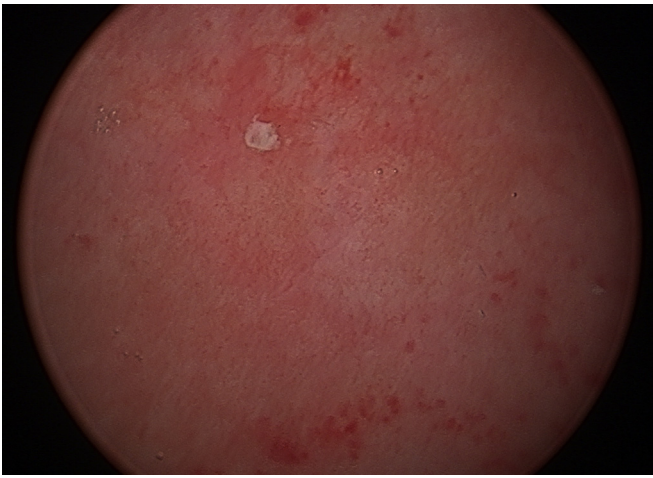


Figure 2. Cystoscopic view of posterior bladder wall entirely covered with condyloma.

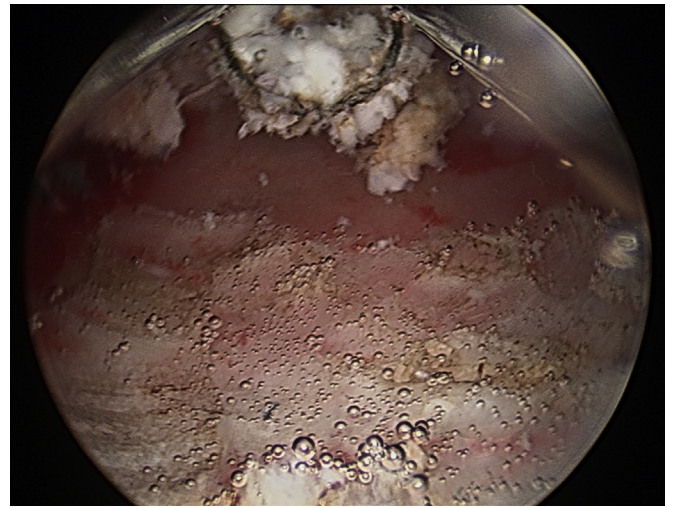


Figure 3. Cystoscopic view of resected patch of condyloma.

HPV-positive. A cystoscopy and urodynamics performed at this time were benign. Family history was notable only for a maternal grandfather with lung cancer. She did not use tobacco, alcohol, or illicit drugs. Renal ultrasound performed a few months before presentation was normal. An HIV blood test was negative.

An office cystoscopy revealed multiple bladder lesions with necrotic areas and inability to maintain filling of the bladder due to bladder contractions. The ureteral orifices were unidentifiable. The patient was referred to our hospital for endoscopic evaluation. A cystoscopy with transurethral resection of bladder tumor (TURBT) was performed. General anesthesia was used and the patient was positioned in the dorsal lithotomy position. A bimanual exam revealed a fully mobile bladder with no masses appreciated. There was no evidence of lesions on the perineum or anus. Digital rectal exam found no masses at the anal verge. A 26-French rigid resectoscope was then placed inside the bladder. Innumerable small tumors were appreciated extending from the bladder neck, through the urethra, to the urethral meatus (Figs. 1–3). These tumors ranged from 2 to 4 cm and covered the bladder neck, right and left side-walls, and posterior wall. Only the dome appeared to be free of tumor. At least 15–20 tumors were identified. Systematic resection of the sidewall tumors down to muscle was attempted and it became clear that complete resection of all tumors was not possible endoscopically. Biopsies were taken from the urethra and sidewalls and the procedure was stopped.

The patient returned to the operating room 2 months later for attempted TURBT. General anesthesia was again induced and 26-French rigid resectoscope was placed inside the bladder with the patient in the dorsal lithotomy position. Upon entry to the urethra, at least six condyloma were visualized from the bladder neck to the urethral meatus. Ninety percent of the bladder was covered with condyloma, with the highest volume at the bladder neck. Only a small portion of the posterior wall had normal urothelium. Systematic resection of all condyloma was again attempted. Both ureteral orifices were orthotopic in position and methylene blue was given to see them readily. Due to such high volume disease and concern for bladder injury, it was determined intraoperatively that the tumors were unresectable. The postoperative course was complicated by urine leakage around the catheter, which was treated with Ditropan for bladder spasms until the catheter was removed at 6 days post-operatively.

Post-surgical pathology following both procedures showed condyloma acuminatum. These squamous papillomas were found

to be negative for HPV16/18, the high-grade HPV subtypes associated with malignancy. The option to do a radical cystectomy with urinary reconstruction was discussed with the patient and it was decided to manage the patient medically. Unfortunately, the patient was lost to follow up despite multiple attempts to contact her.

Discussion and conclusion

HPV is the cause of genital warts/condyloma acuminatum.¹ HPV infection rarely affects the urinary system, including the urethra and bladder, as usually external lesions are benign and self-limited.² Bladder involvement of condyloma acuminatum is very rare³; a literature review at time of submission reveals only 19 cases in the accessible English literature. Isolated condyloma acuminatum of the bladder is even more uncommon, usually presenting in immunosuppressed patients, with two cases reported, one in a patient with AIDS and one in a patient with MS.⁴ Bladder involvement leads to symptoms that interfere with normal daily life, including hematuria, urinary obstruction, nocturia, pain, frequency, and urgency. Cases of HPV-associated bladder carcinoma have been reported in patients with a history of urethral or bladder condyloma acuminatum. Therefore, it is important for these patients with urinary tract condyloma acuminatum to be monitored for the development of carcinoma.⁵

Conflicts of interest

There are no conflicts of interest.

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