

Intravesical condylomata accuminata in HIV positive patient

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LAZARUSJ, KAESTNERL. Intravesical condylomata accuminata in HIV positive patient. *The Canadian Journal of Urology*. 2011;18(2):5663-5665.

A 48-year-old HIV positive woman presented with urgency, frequency, recurrent cystitis and episodic macroscopic hematuria. Cystoscopy revealed papillary

lesions involving most of the bladder. Histology of bladder biopsies revealed human papilloma virus (HPV) associated condyloma acuminata. We discuss the treatment of this rare lesion and review the literature.

Key Words: human papilloma virus, condylomata accuminata, lesions

Case report

A 48-year-old HIV positive woman presented with a 6 month history of urgency, frequency, dysuria and recurrent cystitis. Episodes of macroscopic hematuria were also reported. In her past history she was successfully treated for low grade cervical intraepithelial neoplasia associated with HPV infection.

At the time of presentation she was found to have sputum positive pulmonary tuberculosis and a reduced CD4 count of 179. She had a background of hypertension and is a smoker. Physical examination was unremarkable except for suspected HPV warts noted at her urethral meatus, Figure 1. Urine dipstick showed microhematuria and leucocytes. Renal sonar was normal. Cystourethroscopy revealed a bladder

largely replaced by papillary lesions resembling low grade transitional cell carcinoma, Figure 2. No mass was felt on bimanual examination.

Bladder TUR biopsy, Figure 3a, revealed papillomatous, stratified squamous epithelial lesions arising from the transitional epithelium. HPV associated koilocytes and mild atypia was present, Figure 3b. Nuclear staining for HPV was positive confirming a diagnosis of condylomata accuminata. On in situ hybridization analysis TUR biopsy was positive for HPV 11 sequences.

Symptomatic control was attempted with Oxybutynin and Nitrofurantoin. She was started on antiretroviral therapy (ART). After 6 months of ART she described no further episodes of hematuria and a good improvement in her urinary symptoms. Repeat cystoscopy showed a marked decrease in the extent of intravesical lesions. Repeat cystoscopy was planned in 3 months at which time a plan for further management based on findings will be formulated. Antiretroviral therapy will be continued according to standard protocol at her local ARV treatment site.

Accepted for publication August 2010

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Figure 1. HPV warts at urethral meatus.

Discussion

Condyloma accuminatum is caused by HPV, a common sexually transmitted disease. It usually involves the anogenital region with urethral involvement occurring in up to 20% of cases. Bladder involvement, however,



Figure 2. Cystoscopic view from bladder neck demonstrating extensive papillary lesions.

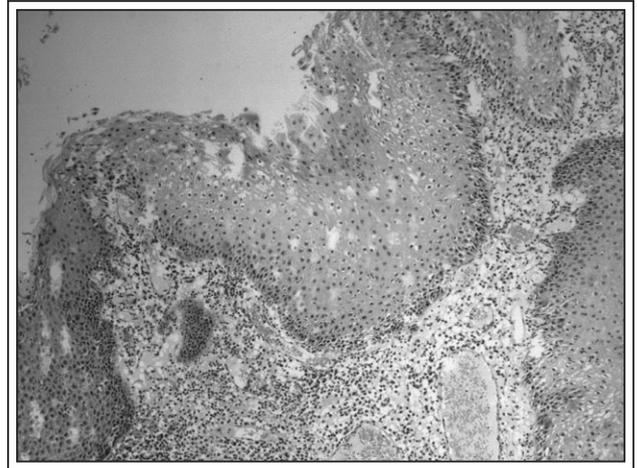


Figure 3a. Low power view of papillary like HPV lesion.

is extremely rare. Only 10 cases of primary bladder lesions appear in the literature.¹ The earliest case was reported by Kleiman in 1961.² It has previously been described in immunocompromised as well as immunocompetent patients.^{1,3}

Only six of eleven cases in the literature (including this case) report on HPV serotyping. Of these, 5 of 6 report like our case, HPV serotype 11.⁴ One case of HPV 16/18 is reported.¹

HPV 11 is a common serotype associated with anogenital infection and regarded as having a low carcinogenic potential. HPV's carcinogenic potential has been risk stratified into three categories of the more than 100 serotypes identified.¹ HPV 16 and 18 are commonly cited as high risk serotypes for genital cancers.

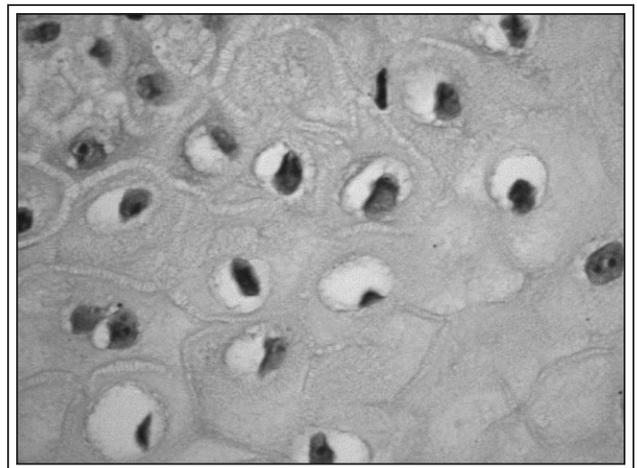


Figure 3b. Koilocytes, typical of HPV infection.

Some genital malignancies like vulgar, cervical and penile cancers are well documented to be associated with previous HPV infection. Polymerase chain reaction (PCR) detection rates of HPV in cervical cancer can be as high as 90%, and 40% in penile cancer.⁵

HPV's role in the development of transitional cell carcinoma (TCC) of the bladder, however, remains controversial.^{5,6} Detection rates appear to vary with geographical location. Rates of HPV association with TCC are quoted as ranging from 0%-80%.⁶ In a recent South African study no HPV positive specimens were found in a sample of 91 TCC cases.⁶ A Canadian audit found a positive rate of 8% at initial TCC workup.³ Additionally, HPV has been biopsy detected in normal urothelium, questioning its pathogenic role in TCC of the bladder.³ It appears likely, based on the available evidence, that HPV plays little role in the development of bladder TCC.

The above debate needs to be contrasted with cases of known primary Condylomata acuminata of the bladder where malignant transformation has been documented.^{7,8}

Several treatment options have been suggested for HPV bladder involvement. TUR has been used successfully in the majority of reported cases. However, in one case malignant transformation was seen following TUR alone.¹ A variety of adjuvant topical treatment has thus been used. These include intravesical BCG, podophyllin and 5-FU. Cystectomy has been resorted to in some refractory cases.¹

Our case showed marked improvement with symptomatic treatment and ART alone. Immune reconstitution, or the reversal of HIV-associated immune system decline, is one of the primary goals of ART. In view of a tendency for HPV to recur and with concerns related to malignant transformation, surveillance cystoscopy is appropriate. □

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