

Bladder Papillomatosis Associated with Condylomas and HPV Positivity: About a Case

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Abstract

HPV infections are now well known as an STD and as a promoter of genital cancers. The most well-known lesions are warts and condylomas. Intravesical location remains rare, which poses a diagnostic problem with urothelial carcinomas, which usually develop within the bladder.

We report a case of intravesical condylomas following a positive HPV infection in a 26-year-old woman.

Keywords: Condylomas; HPV infection; Risk of cancer; Sexually transmitted disease

Introduction

Human Papillomaviruses (HPV) are responsible for common benign mucocutaneous infections. The most well-known lesions are warts and condylomas. In the anogenital region, they constitute a genuine Sexually Transmitted Infection (STI). Intravesical involvement remains rare, which poses a diagnostic challenge, distinguishing them from urothelial carcinomas, which typically develop within the bladder [1].

We describe a case of bladder papillomatosis with condylomas induced by a confirmed HPV infection in a 26-year-old woman.

Case Report

Patient aged 26 years, hypertensive under amlopidine, End-stage renal failure in October 2023, Hemodialysis for about 9 months, Kidney transplant in July 2024, living related donor (husband), Post-transplant ureterovesical anastomosis narrowing which benefited from ureterovesical reimplantation with placement of a double J stent in November 2024, with a history of recurrent multi-resistant urinary tract infections, Incomplete resection of bladder papillomatosis + change of right JJ stent in 09/2025.

The history of the illness dates back to August 2025 following a control ultrasound which revealed suspicious bladder lesions, supplemented by a CT uroscan which revealed a focal and budding endoluminal wall thickening of the right anteroinferior

wall, heterogeneously enhanced after injection of iodinated contrast medium, measuring 16.2 mm in maximum thickness.

The patient underwent an initial incomplete resection of a bladder papilloma in month 09/25 and a change of JJ with anatomicopathological examination of an epidermoid papilloma with focal presence of HPV stigma, confirmed by PCR for HPV which came back positive.

She presented for further resection of bladder lesions (**Figure 1**).

Discussion

The peak incidence of genital HPV infections occurs between the ages of 20 and 25. The cumulative incidence of HPV carriage detected by PCR or hybrid capture in young people several years after their first sexual intercourse is over 50%. Only 5 to 10% of women with high-risk HPV will develop cytological abnormalities, and less than 1% of these persistent forms will lead to cancer. Several publications have demonstrated the importance of viral load and clearance. Virus in the determination of this evolution [2,3].

No similar cases of intravesical papillomas induced by HPV infection have been found in the literature; this location remains very rare and has never been described. The most frequently described locations were cutaneous, anorectal, and genital lesions [1,2,3].

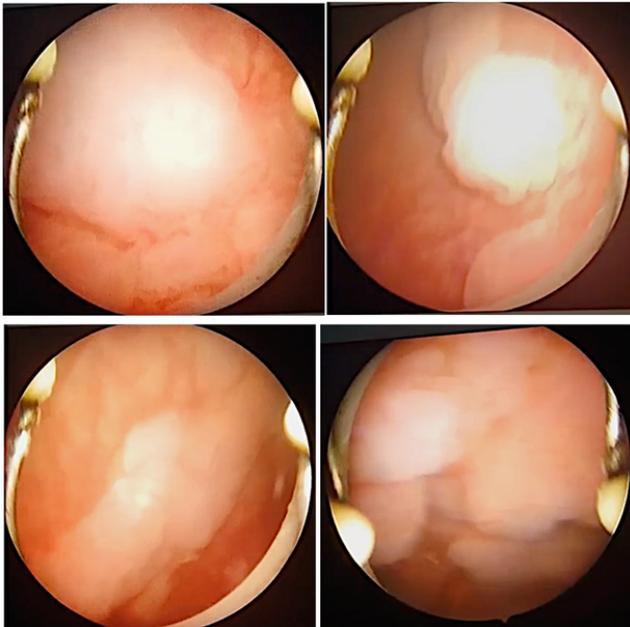


Figure 1: Condylomas affecting all bladder walls.

The link between HPV and certain cancer or precancerous lesions is now well established. However, HPV infection is, as we will see later, a common condition and few lesions will transform. The demonstration of this oncogenic potential was based on epidemiological and clinical data, and its mechanism on experimental data. The virus can be currently considered a necessary but not sufficient factor in this transformation, which involves many other cofactors. Thus, cervical cancer is the leading cancer solid gynecological lesion of proven viral origin[4,5,6].

The diagnosis of any HPV-related mucosal condition should be considered as that of a sexually transmitted disease and a systematic search for an associated STD should be carried out, in particular by performing serology for the human immunodeficiency virus (HIV) and an examination of the sexual partner(s). Protected intercourse, although debatable for virus-induced dysplasias, is, for this reason, inseparable from treatment [1,2].

Therapeutic vaccines intended for patients already infected

with HPV and suffering from severe induced lesions (cancer) face numerous challenges. They must act on the local immune system, specifically by recognizing the viral proteins expressed by infected and transformed cells. The early E6 and E7 proteins are even expressed by cancer cells. Therefore, these are the targets being studied for vaccine development. Aside from a few inconclusive experiments on advanced cases in humans, such a vaccine is currently being tested only in animals.[7].

Conclusion

HPV infections are now well known as an STD and as a promoter of genital cancers. Recent advances in the field of organotypic cultures and the production of pseudo particles viral infections have allowed us to better understand the viral cycle, the mechanisms of oncogenesis and to begin the first prophylactic vaccinations.

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