

## Case Report

## Endoscopic resection of extensive urethral condilomatic injury - case report and literature review

### *Ressecção endoscópica de extensa lesão condilomatosa uretral – relato de caso e revisão da literatura*

Daniel Carvalho Ribeiro<sup>1</sup>, Abilio de Castro Almeida<sup>2</sup>, Adymila Salim Moreira de Rezende<sup>3</sup>,  
Nataly Gomes Tolentino<sup>4</sup>, Nathalia Ferreira Nunes<sup>5</sup>, Bruno Licy Gomes de Mello<sup>6</sup>

Ribeiro DC, Almeida AC, Rezende ASM, Tolentino NG, Nunes NF, Mello BLG. Endoscopic resection of extensive urethral condilomatic injury - case report and literature review / *Ressecção endoscópica de extensa lesão condilomatosa uretral – relato de caso e revisão da literatura*. Rev Med (São Paulo). 2022 July-Aug;101(4):e-187664.

**ABSTRACT:** Introduction: Urethral condyloma is a common sexually transmitted infection associated with the human papillomavirus (HPV). Affection in the urethra is rare, especially when dealing with an HIV-positive patient with an undetectable viral load. Objective: It aims to discuss the urethral involvement of the papillomavirus and the possible forms of treatment, as well as to review the literature. Case report: The patient in question presented suspicion of transitional cell carcinoma, being referred for treatment, but this suspicion was removed and the diagnosis of urethral condylomatous lesion was closed, with treatment by endoscopic resection of the lesions with monopolar energy. Discussion: Urethral involvement occurs in up to 5% of cases, and it has a high probability of malignancy. There are no specific guidelines on the management of intra-urethral condyloma, as it is a rare condition. The goal of treatments is to remove warts and induce injury-free periods, the conservative with cryotherapy and trichloroacetic acid not always being applicable to the urethra due to difficult access. Endoscopic resection of the lesions has been shown to be more effective. Conclusion: urologists and pathologists should be aware of this rare possibility to avoid diagnostic errors about this predominantly benign entity. Thus, we present a case of endoscopic resection of an extensive condylomatous lesion in the penile urethra of a male patient with hemophilia and HIV positive.

**Keywords:** Urethral; Human Papillomavirus; Urethral condyloma; Condyloma acuminatum; STI.

**RESUMO:** Introdução: O Condiloma uretral é uma infecção sexualmente transmissível comum associada ao vírus do papiloma humano. O acometimento na uretra é raro, principalmente quando trata-se de um paciente HIV positivo com carga viral indetectável. Objetivo: Tem como objetivo discutir sobre o acometimento uretral do papiloma vírus e as possíveis formas de tratamento, assim como revisar a literatura. Relato de caso: O paciente em questão apresentou suspeita de carcinoma de células de transição, sendo encaminhado para tratamento, porém afastado essa suspeita e fechando diagnóstico para lesão condilomatosa uretral, sendo realizado tratamento por ressecção endoscópica das lesões com energia monopolar. Discussão: O acometimento uretral ocorre em até 5% dos casos, e o mesmo apresenta alta probabilidade de malignização. Não existem diretrizes específicas sobre o manejo do condiloma intra-uretral, pois trata-se de uma patologia rara. O objetivo dos tratamentos é remover as verrugas e induzir períodos livre de lesões, sendo que o conservador com crioterapia e o ácido tricloroacético nem sempre são aplicáveis à uretra devido ao difícil acesso. A ressecção endoscópica das lesões tem se mostrado mais eficaz. Conclusão: Urologistas e patologistas devem estar cientes dessa rara possibilidade, a fim de evitar erros de diagnóstico acerca dessa entidade predominantemente benigna. Desta forma apresentamos um caso de ressecção endoscópica de extensa lesão condilomatosa em uretra peniana de uma paciente masculino hemofílico e HIV positivo.

**Palavras-chave:** Infecções por Papillomavirus; Condiloma acuminado; Uretra; IST.

1. Master by the Fluminense Federal University, Uro-oncologist at the Hospital do Câncer de Muriaé. <https://orcid.org/0000-0003-4977-5571>, E-mail: [carvalho\\_daniel@id.uff.br](mailto:carvalho_daniel@id.uff.br)

2. Uro-oncologist at the Hospital do Câncer de Muriaé. <https://orcid.org/0000-0002-6637-4860>. E-mail: [abiliocastro@yahoo.com.br](mailto:abiliocastro@yahoo.com.br)

3. Teacher of the Medicine course of UNIFAMINAS – Muriaé, Pathologist at the Hospital do Câncer de Muriaé. <https://orcid.org/0000-0001-6439-7965>. E-mail: [adymila@hotmail.com](mailto:adymila@hotmail.com)

4. Intern at the Medicine Course at UNIFAMINAS – Muriaé. <https://orcid.org/0000-0002-4438-4937>. E-Mail: [nataly\\_tolentino@hotmail.com](mailto:nataly_tolentino@hotmail.com)

5. Intern at the Medicine Course at UNIFAMINAS – Muriaé. <https://orcid.org/0000-0002-1164-5328>. E-Mail: [nathaliafn95@hotmail.com](mailto:nathaliafn95@hotmail.com)

6. Infectologist at the Hospital do Câncer de Muriaé, Medical Manager at the Hospital do Câncer de Muriaé. <https://orcid.org/0000-0002-3246-7671>. E-mail: [brunolicy@gmail.com](mailto:brunolicy@gmail.com)

**Correspondence:** Daniel Carvalho Ribeiro. Hospital do Câncer de Muriaé - Centro de Estudos, 2º andar, Bloco 2. Av. Cristiano Ferreira Varella, nº 555, bairro Universitário, Muriaé, MG. CEP: 36880-000.

## INTRODUCTION

Condyloma acuminatum is among the most common sexually transmitted diseases, which is caused by the Human Papillomavirus (HPV), and the epidemiological profile is that the female sex is the most affected<sup>1</sup>.

The lesion caused by HPV usually invades the epidermis in the anogenital area and the occurrence in the urinary tract is rare, affecting about 5% of all cases<sup>1,2</sup>. Consequently, it is believed that its presence in the urinary tract is associated with the immunosuppressive condition of the patient, such as being HIV positive<sup>3</sup>.

HPV can be classified into high-risk oncogenic types and low-risk non-oncogenic types, which cause condyloma; however, the association between the type of risk for HPV and carcinogenesis in the urinary system is still unknown<sup>4</sup>. We report a rare case of urethral HPV in an HIV-positive hemophilic type B patient with an undetectable viral load.

## CASE REPORT

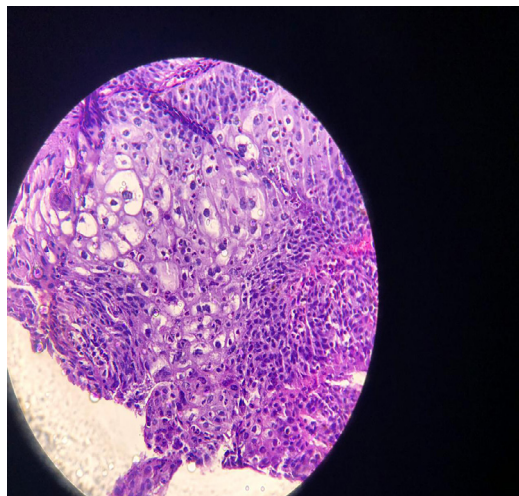
Male patient, 42 years old, with hemophilia type B, HIV positive, using Antiretroviral Therapy (ART), with an undetectable viral load. He sought FCV in early December 2019, referred due to a urethral lesion with an external biopsy of high-grade transitional cell carcinoma (TCC) (muscle not shown). At the time, he denied hematuria. Cancer staging tests and urethrocytoscopy with biopsy were requested. During cystoscopy, multiple papillary lesions were seen in the anterior urethra (Figure 1).



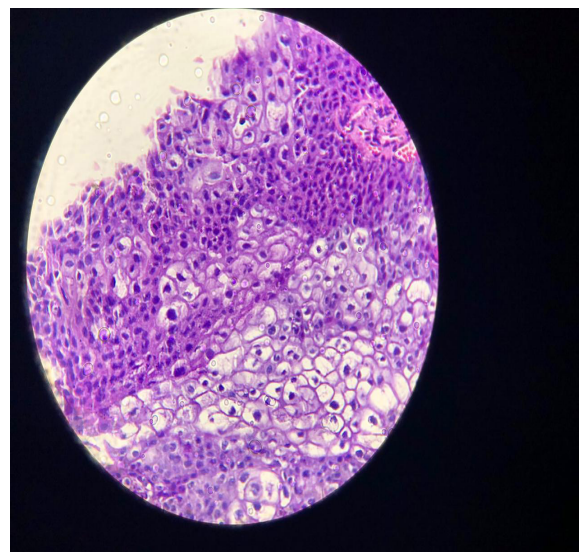
**Figure 1:** Multiple papillary lesions in the anterior urethra

The proximal urethra and bladder were disease free. Those were biopsied and the anatomopathological report

showed: Urethral mucosa with Human Papilloma Virus (HPV) infection and condyloma acuminatum (Figures 2 and 3).



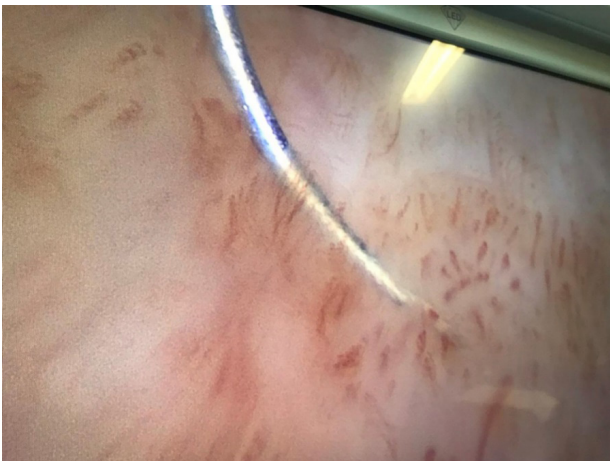
**Figure 2:** Evidence of Koilocytes: bulged, vacuolated cells with nuclei located on the periphery of the cell. (40x magnification)



**Figures 3:** Koilocytes: the major criteria for HPV diagnosis. (40x magnification)

After diagnosis, and revision of the external lamina excluded urethral neoplasia, the programmed treatment of choice was Endoscopic Resection of Lesions with monopolar energy (Figure 4).

The procedure was uneventful. After discharge, the same returned in 21 days, period of the urethra healing. An outpatient cystoscopy was performed and after finding an intact urethra, without macroscopic lesions, we applied 10 ml of the solution (1 ml cidofovir with 9 ml of Lidocaine gel). Adjuvants were performed once a week for 6 weeks. At control cystoscopy, the patient has no signs of recurrence.



**Figure 4:** Endoscopic resection of lesions with monopolar energy

## DISCUSSION

HPV infection is the most common sexually transmitted disease in the world<sup>5</sup>. In 90% of cases, types 6 and 11, which have low oncogenic potential, are the causal agents<sup>6</sup>. With regard to high-risk HPV, it is known that it carries a high potential for malignant degeneration<sup>7</sup>. A biopsy to confirm the diagnosis and exclude malignancy is mandatory for treatment-refractory condyloma, especially in patients with a compromised immune system<sup>8</sup>. Urethral involvement occurs in up to 5% of cases, usually located in the external meatus and limited to 3cm of the most distal part of the urethra. The main complication of this type of lesion in the urethra is bleeding, in rare cases, urinary

obstruction<sup>2,9</sup>.

There are no specific guidelines on the management of intraurethral condyloma, as it is a rare condition. The histopathological diagnosis is based on the identification of koilocytosis, with the presence of a cell with perinuclear vacuoles. The most established treatments are standardized for the external genitalia, and most are not recommended for urethral application<sup>10</sup>. The difficulty of access limits the application, as well as the high recurrence rates and possible complications, the most important among them, urethral stricture. Podophyllotoxin and imiquimod are not applicable in the urethra due to aggression to the mucosa. Cryotherapy and trichloroacetic acid are not always applicable to the urethra due to difficult access. Treatments aim to remove warts and induce lesion-free periods<sup>11</sup>. Endoscopic lesion resection associated with a topical application is the most effective method for the complete resolution of lesions and with lower recurrence rates<sup>11</sup>.

## CONCLUSION

Urethral involvement by HPV may present as isolated or disseminated papillary, and there may be no manifestation in the external genitalia. Therefore, urologists and pathologists must be aware of this rare possibility to avoid misdiagnosis of this predominantly benign entity, which must be differentiated from potentially fatal malignant pathologies, such as urothelial or squamous carcinoma. The distinction between these neoplasms is crucial due to the different modes of prognosis and treatment used for these lesions.

**Participação dos autores:** A participação de cada autor foi definida de acordo com a formação de cada um e a familiaridade de cada participante com a escrita deste trabalho. Sendo assim, após discussão sobre as necessidades do trabalho foi realizado da seguinte forma: introdução, pelas acadêmicas *Nataly Gomes Tolentino* e *Nathalia Ferreira Nunes*; o relato foi descrito pelos urologistas *Daniel Carvalho Ribeiro* e *Abilio de Castro Almeida*; a discussão foi realizada pelo urologista *Daniel Carvalho Ribeiro* e pelo infectologista *Bruno Licy Gomes de Mello*; a conclusão pelo urologista *Abilio de Castro Almeida*; as imagens foram selecionadas e descritas pela patologista *Adymila Salim Moreira De Rezende*; a revisão de todo texto foi realizada por todos os autores e a submissão foi realizada pelas acadêmicas *Nataly Gomes Tolentino* e *Nathalia Ferreira Nunes*.

## REFERENCES

1. Scheinfeld N. Condylomata acuminata (anogenital warts) in adults: epidemiology, pathogenesis, clinical features, and diagnosis. UpToDate 2017 Jan 4. Available from: <https://www.uptodate.com/contents/condylomata-acuminata-anogenital-warts-in-adults-epidemiology-pathogenesis-clinical-features-and-diagnosis>
2. Vives A, Vazquez A, Rajmil O, Cosentino M. Urethral condylomas in men: experience in 123 patients without previous treatment. *Int J STD AIDS*. 2016;27(1):39-43. doi: <https://doi.org/10.1177/0956462415574627>
3. Sarier M, Ozel E, Duman I, Yuksel Y, Demirbas A. HPV45-positive condyloma acuminatum of the bladder in a renal transplant recipient. *Transpl Infect Dis*, 2017;19(2):e12667. doi: <https://doi.org/10.1111/tid.12667>
4. Douglas J, Moreland A. Genital human papillomavirus infections. In: Morse SA, Ballard RC, Holmes K, et al., editors. *Atlas of sexually transmitted diseases and AIDS*. 3rd ed. Edinburgh: Mosby; 2003. p.261-278. doi: <https://doi.org/10.1086/505982>
5. De Camargo CC, Tasca KI, Mendes MB, Miot HA, de Souza LR. Prevalence of anogenital warts in men with HIV/AIDS and associated factors. *Open AIDS J*. 2014;8:25-30. doi: <https://doi.org/10.2174/1874613601408010025>
6. Garland SM, Steben M, Sings HL, James M, Lu S, Railkar R, Barr E, Haupt RM, Joura EA. Natural history of genital warts: analysis of the placebo arm of 2 randomized phase III trials of a quadrivalent human papillomavirus (types 6,11,16, and 18) vaccine. *J Infect Dis*. 2009;199(6):805-14. doi: <https://doi.org/10.1086/597071>

7. Gormley RH, Kovarik CL. Human papillomavirus-related genital disease in the immunocompromised host: Part I. *J Am Acad Dermatol.* 2012;66:867.e1 doi: <https://doi.org/10.1016/j.jaad.2010.12.050>
8. Workowski KA, Bolan GA, Centers for Disease Control and Prevention. Sexually transmitted diseases treatment guidelines, 2015. *MMWR Recomm Rep.* 2015;64:1. doi: <https://doi.org/10.1093/cid/civ771>
9. Cinar O, Suat bolat M, Akdeniz E, Sahinkaya N. A rare cause of acute urinary retention in women: meatal condyloma acuminata, a case report. *Pan Afr Med J.* 2016;24:87. doi: <https://doi.org/10.11604/pamj.2016.24.87.9751>
10. Kilciler M, Bedir S, Erdemir F, Coban H, Erten K, Ors O, Ozgok Y. Condylomata acuminata of external urethral meatus causing infravesical obstruction. *Int Urol Nephrol.* 2007;39(1):107-9. doi: <https://doi.org/10.1007/s11255-005-4986-3>
11. Vives Á, Vazquez A, Rajmil O, Cosentino M. Urethral condylomas in men: experience in 123 patients without previous treatment. *Int J STD AIDS.* 2016;27(1):39-43. doi: <https://doi.org/10.1177/0956462415574627>
12. Orlando G, Fasolo MM, Beretta R, Merli S, Cargnel A. Combined surgery and cidofovir is an effective treatment for genital warts in HIV-infected patients. *AIDS.* 2002;16:447-50. doi: <https://doi.org/10.1097/00002030-200202150-00017>

Received: June 23, 2021

Accepted: May 31, 2022