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Case Report

Buschke-Lowenstein tumor in a patient with HIV and Psoriasis

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ABSTRACT

The Buschke-Lowenstein tumor, known as the giant condyloma acuminatum, is a rare lesion of the anorectal and PerianaL region; it is sexually transmitted and associated with human papilloma virus, types 6 and 11. Histologically, it is a benign tumor, but it can reach big proportions and may behave aggressively. The purpose of this study is to report the case of a patient diagnosed with HIV and psoriasis 14 years ago, associated with Buschke-Lowenstein tumor and other diffuse condylomatous lesions in the body.

Tumor de Buschke-Lowenstein em um paciente com HIV e psoríase

Palavras-chave:
Papilomavírus humano
Vírus da imunodeficiência humana
Psoríase

RESUMO

O tumor de Buschke-Lowenstein, também conhecido como condiloma acuminado gigante, é uma lesão rara da região anorretal e perianal, sexualmente transmitida, associada ao papiloma vírus humano, Tipos 6 e 11. Histologicamente, trata-se de um tumor benigno, mas clinicamente atinge grandes proporções e pode se comportar de forma agressiva. O objetivo deste estudo é relatar o caso de um paciente com diagnóstico de HIV e psoríase há 14 anos, associado ao tumor de Buschke-Lowenstein e outras lesões condilomatosas difusas no corpo.

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Introduction

Buschke–Lowenstein Tumor (BLT), also known as Giant Condyloma Acuminatum (GCA), is a rare sexually transmitted anorectal and perianal lesion associated with Human Papilloma Virus (HPV) types 6 and 11.[1]

Histologically, it is a benign tumor, but clinically it reaches large proportions and can behave aggressively with extensive tissue infiltration. It usually progresses slowly in immunocompetent patients, but can grow rapidly in immunocompromised individuals.[1] Although it has no metastatic potential (Santos et al., 2012), in some cases malignant degeneration may occur and therefore early diagnosis and treatment is crucial.

The aim of this study is to report the case of a patient diagnosed with HIV and psoriasis for 14 years, associated with BLT and other diffuse condylomatous infections on the body.

Case report

Male patient, smoker, with a history of HIV infection on antiviral drug therapy for 14 years and skin psoriasis being followed at infectology and dermatology departments since 2005.

He also had lesions compatible with cutaneous psoriasis (oval plaques of various erythematous-desquamative sizes) scattered throughout the body, many of which under areas of verrucous infections (Fig. 1). The patient was admitted to the coloproctology outpatient clinic presenting with multiple condyloma-type wart lesions located throughout the genitalia, suprapubic region, buttocks and legs, as well as Buschke–Lowenstein Tumor.

Initially, an excisional biopsy was performed on the left buttocks encompassing this area (psoriasis + condyloma) whose histopathological report concluded that it was a benign papillomatous lesion compatible with condyloma acuminata and cytopathic changes suggestive of HPV infection.

Immediately, we continued the clinical treatment started at the dermatology department with the topical application of 25 % podophylline for a period of five weeks in order to reduce the size of the lesion, but the expected effect was not achieved at the end of this period.

We then opted for a new topical application with 90 % Trichloro Acetic Acid (TCA), which showed excellent results (eradication) in minor gluteus and leg injuries, but without any success in BLT (Fig. 2).

Then, due to the partial success with the clinical management (topical agents) of the disease, we opted to perform surgical resection of the genital and perianal lesions in the operating room.

In the genitalia and suprapubic region, we use both resection and electro-fulguration, due to its extensive "spread" area.

In the perianal region, we performed the resection of the entire lesion on the right side, followed by a V–Y advancing flap, and on the left side we allowed healing to occur by second intention (Fig. 3).

The histopathological study concluded that it was a benign condylomatous lesion, and the HPV hybrid capture test revealed to be type 6.

The patient had a good postoperative recovery without complications.

After complete healing of the lesion, topical use of imiquimod cream 50 mg/g in the perianal region was prescribed for 16 weeks, as well as tetravalent HPV vaccination to improve local and systemic immunity.

Discussion

Buschke–Lowentein Tumor was originally described in 1925 in the foreskin of the penis, although these lesions also occur in the anorectal and perianal regions. It is characterized by slowly progressive, exophytic, ulcerative, cauliflower-shaped tumors, lack of spontaneous resolution, local destruction, compression of adjacent tissues, and high recurrence rate. Patients commonly experience pain, itching, bleeding, and anal mass growth.[1]

BLT is a rare variant of genital warts, caused by HPV types 6 and 11 and, occasionally, types 16 and 18.[1]

The risk factors described include immunosuppression as a reaction to chemotherapy, corticosteroid therapy, post-transplantation, diabetes mellitus and HIV infection; excessive alcohol consumption; smoking; poor local hygiene; and herpes simplex infection.[2]

As for HIV, in addition to being described as a risk factor for BLT, it appears to be a complex interaction between HIV/HPV and local immune response mechanisms. HIV increases the HPV transcription and up-regulates HPV E7 protein that influences cell differentiation leading to higher amounts of HPV in tissue.[3]

Thus, we believe that the fact that the patient presents with the cutaneous form of psoriasis does not play a role in the onset and/or origin of BLT, but that his compromising immunity condition (chronic T-cell mediated inflammatory skin disease) allows its emergence.[4]

Given the specificity of the case, the optimal management of BLT has not yet been fully defined. However, wide local excision with free margins is still the treatment of choice.

Other therapeutic options may be used even concomitantly, as we did with topical agents (podophylline, TCA, and imiquimod), mainly in an attempt to reduce the lesion size for a better surgical approach, or with systemic therapy with radio-chemotherapy (with which we have no experience for this type of pathology).[5]

The primary prophylaxis with HPV vaccination is definitely useful in reducing the incidence of types 6 and 11 associated warts and consequently BLT. However, it is worth highlighting the importance of the vaccine's role even after exposure, as it decreases the persistent HPV infection, incidence of Anal Intraepithelial Neoplasia (AIN) and high-grade IAN in men who have sex with men (MSM), and play an adjuvant role in high-grade IAN management.[5]

Therefore, to achieve better results with this patient (decrease and/or avoid relapse), we used a strategy to increase local and systemic immunity by applying topical imiquimod for 16 weeks, tetravalent vaccination (HPV 6, 11, 16 and 18), and strict surveillance with high-resolution anoscopy.[5]

Knowledge of the pathophysiology related to BLT development is important to implement anal cancer prevention

Fig. 1 – Verrucous infections in the upper 3 images. And psoriasis lesion in the under 3 images.

Fig. 2 – New topical application with 90 % TCA, which showed excellent results in minor gluteus and leg injuries, but without success in BLT.

Fig. 3 – In the perianal region, we performed the resection of the entire lesion on both side, on the left side we allowed healing to occur by second intention, and in the right side we made a V-Ysuture (flap).

measures in the high-risk group of patients. These include HPV vaccination, anal cancer screening through high resolution anoscopy, and treatment of precursor lesions (high-grade IAN).

Conflicts of interest

The authors declare no conflicts of interest.

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