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Buschke-Lowenstein tumor

Tumor de Buschke-Lowenstein

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Palabras clave:
tumor de Buschke-Lowenstein, condiloma acuminado, virus del papiloma humano, carcinoma de células escamosas, condiloma gigante.

ABSTRACT

Giant condyloma acuminatum or Buschke-Lowenstein tumor is a sexually transmitted disease associated with the human papillomavirus, specifically serotypes 6 and 11. Its incidence worldwide reaches 0.1% of the sexually active population, especially in patients with immunosuppression, such as the human immunodeficiency virus. It behaves as a locally aggressive tumor. The gold standard treatment is still surgery. We present a case managed with electrofulguration, wide resection of healthy margins, and postoperative follow-up.

RESUMEN

El condiloma gigante acuminado o tumor de Buschke-Lowenstein se considera una enfermedad de transmisión sexual, asociado al virus del papiloma humano y específicamente a los serotipos 6 y 11. Su incidencia a nivel mundial alcanza el 0.1% de la población con actividad sexual y especialmente en pacientes portadores de algún estado de inmunosupresión como el virus de inmunodeficiencia humana. Se comporta como un tumor localmente agresivo. El tratamiento de referencia sigue siendo la cirugía. Se presenta un caso que fue manejado con electrofulguración con resección amplia de márgenes sanos y seguimiento postoperatorio.

INTRODUCTION

In 1925, German dermatologists Abraham Buschke and Ludwig Lowenstein analyzed patients with penile lesions that they described as condylomas with carcinoma-like features. These lesions are now eponymously attributed to these two men as Buschke-Lowenstein tumors or giant condylomas. Gradually, reports involving other areas of the anogenital region appeared.[1] Giant Buschke-Lowenstein condyloma acuminatum occurs most frequently in men and is transmitted by sexual contact, with an incidence of about 0.1% in the general population.

The incidence of this tumor is higher in homosexual or bisexual men. Low-risk human papillomavirus (HPV) types 6 and 11 are said to be associated with this tumor. It is well known that viral warts become larger and more resistant to treatment when there is altered host immunity, as in acquired disorders such as human immunodeficiency virus (HIV) infection.

This resistance is explained by the fact that the genome of HPV 6 and 11 encodes DNA sequences translated to produce E6 and E7, tumor suppressors that inactivate p53, resulting in uncontrolled replication of epithelial cells, ultimately leading to abnormal growth.[2]

Because of this, condylomas are initially benign and can later develop severe dysplasia and undergo transformation to squamous cell carcinoma.[3] The transformation rate to malignancy is estimated at 56%, but no metastases are reported.[4]

Some authors consider it a low-grade epidermoid carcinoma, while others consider

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it a transitional form between epidermoid carcinoma and condyloma acuminata.[5]

The gold standard treatment remains surgery with healthy excision margins; spontaneous regression is exceptional, and recurrence after incomplete excision is frequent.[6] However, there is no general agreement on treatment options for this tumor because it is an infrequent entity.[7,8]

Surgical management remains the first line of treatment and is recommended by wide local excision, with 1-2 cm margins, and complete evaluation of circumferential, peripheral, and deep margins, if possible.[9]

Local treatments (podophyllin, cryotherapy, electrocoagulation, fluorouracil, CO_2 laser, and even radiotherapy) or the adjuvant use of chemotherapy (bleomycin, methotrexate) have also been described. However, these approaches have yet to reduce the lesion's recurrence successfully.[10]

Follow-up should be the cornerstone after surgery due to its high recurrence rate. Follow-up is recommended every six months after wound healing for the first two years.[11]

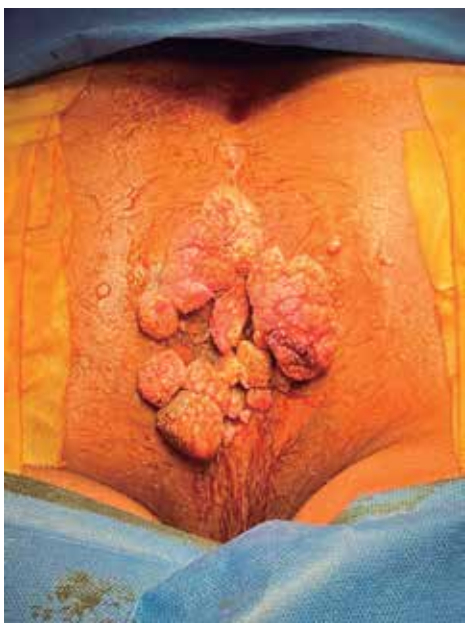

Figure 1: *Patient in the operating room in Sevillian razor position, with previous cleansing with iodo povidone. A giant condylomatous lesion is observed in the anal and perianal regions.*

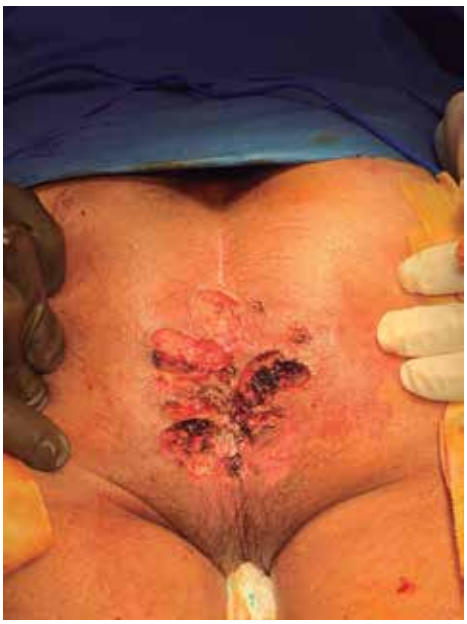

Figure 2: *Condyloma resection with monopolar energy electrocautery covering 20 mm of healthy margins.*

PRESENTATION OF THE CASE

We present the case of a 29-year-old male patient with a history of HIV (+) of 12 years of evolution with antiretroviral therapy, no CD4 T-lymphocyte count, and no viral load. He came for consultation due to a mass in the anal region of 12 months of evolution accompanied, during the last month, by proctalgia and proctorrhagia. Physical examination revealed a giant cauliflower-like tumor located in the anoderm and up to 6 cm outside the anal margin, with a warty surface and bloody discharge. Laboratory studies were taken on admission: hemoglobin 10.80 g/dl, hematocrit 34.60%, platelets 359 $\times$ 10^3/ml, leukocytes 15.13 $\times$ 10^3/ml, with neutrophils 70.56 $\times$ 10^3/ml, lymphocytes 1.44 $\times$ 10^3/ml, creatinine 1.0 mg/dl, urea nitrogen 8.6 mg/dl, urea 18.5 mg/dl, sodium 138 mEq/l, potassium 3.3 mEq/l and chlorine 104 mEq/l. The diagnosis of giant condyloma was established, and surgery was scheduled to perform a wide resection. In the operating room, after the anesthetic block, the anal region and perianal margins were cleaned with iodo povidone *(Figure 1)*.

The giant condylomas were tractioned with Allis forceps, and their resection was started with monopolar energy electrocautery with a margin of 20 mm of macroscopically healthy skin *(Figure 2)*, with subsequent verification of hemostasis. Subsequently, a Pratt anoscope was introduced to evaluate the anal canal; small condylomatous lesions were found, and they were electrofulgurated, ending the surgical procedure.

The specimens were sent for histopathologic study *(Figure 3)*, identifying an exophytic growth

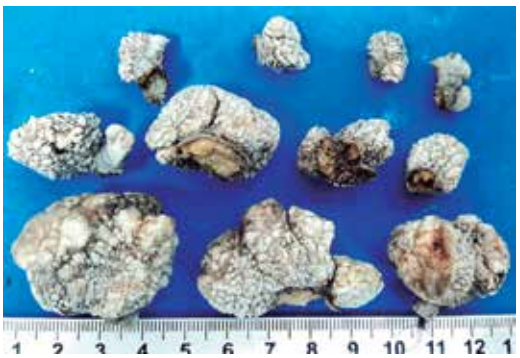

Figure 3: *Macroscopic sections used for histopathological study.*

Figure 4: *Intact basal layer.*

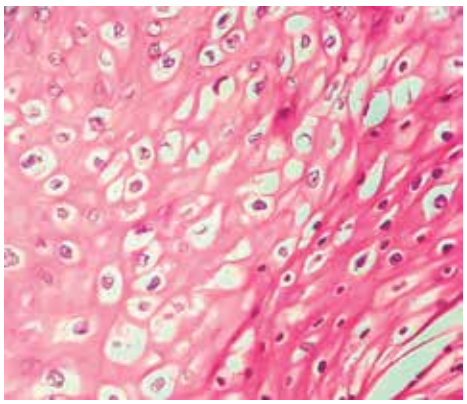

Figure 5: *Cells with vesicular nuclei, clear vascular cytoplasm (coilocytes), and few mitosis figures are identified in the superficial thirds.*

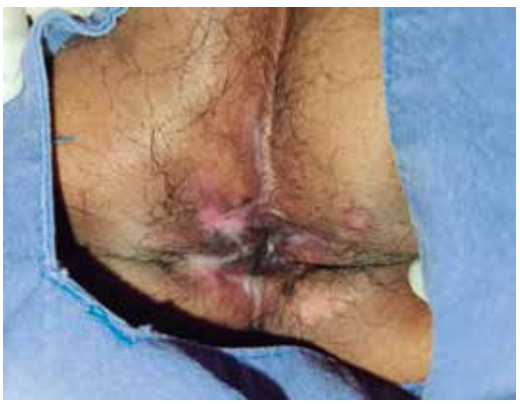

Figure 6: *Perianal region with wide, healthy margins two months after surgical excision.*

pattern in microscopic sections with stratified flat epithelium with significant acanthosis-basal cells with mild hyperchromasia and atypia. The basal layer was intact *(Figure 4)*. In the superficial thirds were cells with vesicular nuclei, clear vascular cytoplasm (koilocytes), and a few mitosis figures *(Figure 5)*. The superficial layer demonstrated a slight increase in keratin lamellae. The fibrous stroma had multiple congestive vessels. According to these findings, the diagnosis of Buschke-Lowenstein disease with low-grade squamous intraepithelial anal lesion AIN 1 was established. The patient was referred to the outpatient clinic two months after the surgical procedure; the perianal region was

adequately healed, with no evidence of new condylomatous lesions or fistulas *(Figure 6)*.

DISCUSSION

Buschke-Lowenstein tumor or giant condyloma acuminatum is a rare, slow-growing verrucous tumor of the anogenital region.[1] It is caused by infection with human papillomavirus, especially serotypes 6 and 11. It has been described that this tumor can progress to severe dysplasia and even undergo transformation to squamous cell carcinoma, especially in patients seropositive for human immunodeficiency virus.[3]

Due to the high risk that this pathological entity has of becoming an intraepithelial neoplasia with evolution to squamous cell carcinoma, in this case, the decision was made to perform a complete resection of the lesions that included anoderm and gluteal skin outside the anal margin, with healthy borders up to 20 mm outside the lesion, which is currently considered the gold standard according to the literature reviewed.[6,9] However, recurrence after surgical management has been reported to vary between 60 and 66%; because of this, some authors have proposed chemotherapy or radiotherapy as adjuvant treatment to surgical management. However, their efficacy has yet to be established.[7] Follow-up after surgical management should be considered the cornerstone, and it has been recommended that a follow-up visit every six months for two years after completing wound healing be performed.[11] This is to detect early recurrences, avoiding more complex medical-surgical treatments.

CONCLUSIONS

The Buschke-Lowenstein tumor or giant condyloma acuminatum is still a rare pathology but with a high risk of transformation to severe dysplasia and even squamous cell carcinoma. In the last review on the subject, it was mentioned that until 2020, only 97 cases of patients published in 55 articles had been reported, so our purpose is to report a new case of Buschke-Lowenstein tumor in order to add one more to the epidemiological report, as well as the surgical management that was implemented of surgical resection of wide margins of healthy skin in order to avoid recurrence.

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