Buschke–Lowenstein Tumor in a Human Immunodeficiency Virus Positive Patient: A Rare Case Report

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Buschke–Lowenstein tumor, otherwise known as giant condyloma acuminata, presents as an asymptomatic, papillomatous growth on the genitalia or the perianal area that grows to a large size. A 28 year old male HIV seropositive patient presented to outpatient department clinic with complaint of large painful mass in pubic, peno-scrotal & anogenital region with pus, bleeding and fetid odour since 1 year. Histopathological examination revealed hyperkeratosis, parakeratosis, acanthosis & papillomatosis. A wide surgical excision was performed with removal of 80% of tumor and for rest of the tumor podophyllin 20% was prescribed.

Keywords: Buschke–Lowenstein tumor, human immunodeficiency virus, human papillomavirus

INTRODUCTION

Buschke–Lowenstein tumor, otherwise known as giant condyloma acuminata, presents as an asymptomatic, papillomatous growth on the genitalia or the perianal area that grows to a large size. This is a very rare variant of human papillomavirus (HPV) 6 and 11-associated disease.¹ The prognosis is poor in untreated cases as the tumor can continue to grow and invade locally, causing death by exsanguinations from femoral artery invasion or cachexia.² Recurrence and progressive malignant transformation can occur even after treatment,³ and hence, long-term follow-up is necessary.

CASE REPORT

A 28-year-old male human immunodeficiency virus (HIV) seropositive patient presented to outpatient department clinic with complaint of large painful mass in pubic, peno-scrotal and anogenital region with pus, bleeding and fetid odor since 1 year. Examination revealed that three cauliflower-like tumor mass measuring 10 cm × 6 cm, 6 cm × 4 cm and 12 cm × 7 cm (Figure 1). No lymph node was enlarged on palpation. Patient had no systemic complaints. Positive hematological investigation revealed CD4 lymphocyte count to be 180 cells/mm³ and hemoglobin 10 g/dl. Ultrasonography was performed, which did not show any underlying structures involved. Histopathological examination revealed hyperkeratosis, parakeratosis, acanthosis and papillomatosis. Many

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cells of the epidermis appeared vacuolated and had round hyperchromatic nuclei (koilocytic changes) (Figure 2). A wide surgical excision was performed with removal of 80% of tumor (Figure 3) and for the rest of the tumor, podophyllin 20% was prescribed (Figure 4).

**DISCUSSION**

Buschke–Lowenstein tumor or verrucous carcinoma is a low-grade squamous cell carcinoma characterized by a slowly enlarging, verrucous, exophytic “cauliflower-like” growth that causes compression and local destruction of the underlying structures. Buschke–Lowenstein tumor comprises 5-24% of all penile cancers and occurs in young men with poor genital hygiene, in association with HPV-6 and HPV-11 or chemical carcinogens. It occurs on the glans penis, prepuce, coronal sulcus and rarely the shaft of penis in uncircumcised men; the vulva, vagina, and cervix in women; and the perianal region in both sexes as an exophytic tumor. It compresses the local tissues and leads to perforation and fistula formation. Regional lymph node metastasis is uncommon and distant spread is even rarer. Radiotherapy may make the tumor more aggressive.\(^5\)

It is considered to be a pre-malignant condition though malignant transformation is rarely reported. The lesions of giant condylomata may respond partially to podophyllin.\(^6\) The frequency of applications may need to be increased above the once weekly schedule. However, this course is not advisable for lesions in the perianal area or if the patient is unable to carry out instructions as misuse of the agent can lead to severe edema and ulceration. There may be a reduction in the size of the tumor with this therapy. However, complete clearance with podophyllin alone is uncommon, and the residual lesion may require excision or cryotherapy. Mohs’ micrographic surgery, cryotherapy, CO\(_2\) laser treatment are other treatment modalities though surgical excision remains the treatment of choice.\(^7\)

**CONCLUSION**

Buschke–Lowenstein tumor comprises 5-24% of all penile cancers and occurs in young men with poor genital hygiene, in association with HPV-6 and HPV-11. Its prevalence is high in immune compromised individuals. Surgical excision remains the treatment of choice. This case is being reported due to rarity of its occurrence and HIV association.

**REFERENCES**


How to cite this article: Varma K, Saxena A. Buschke-Lowenstein tumor in a human immunodeficiency virus positive patient: A rare case report. IJSS Case Reports & Reviews 2014;1(6):16-17.

Source of Support: Nil, Conflict of Interest: None declared.