

## Vulvo-perianal giant condylomata accuminata (Buschke Lowenstein Tumor) in a HIV-infected woman: a case report

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### Abstract

Giant condylomata accuminata also known as Buschke Lowenstein Tumor (BLT) is a benign extensive cauliflower like lesion that is commonly found in the genital area. Its etiology is human papilloma virus. It occurs more in men than women with a ratio of 2.7:1. Immunosuppression with HIV is the main risk factor but it has also been associated with pregnancy, diabetes, chronic steroid use and organ transplants. It is debilitating with extensive psychosocial maladjustments and has 50% potential for malignant transformation. The study was undertaken at Kenyatta National Hospital Gynecological ward.

A 37 year old Para 2+0, HIV-infected woman on Highly Active Antiretroviral Therapy (HAART) for the past eight years, presented with a seven year history of progressive vulval growths and a five year history of per vaginal discharge and pruritus. The growths were insidious in onset and progressive but with no associated pain. The discharge was yellow, watery, copious and not foul smelling. There was no history of dyspareunia or post coital bleeding. She had been treated with various creams and antibiotics with no improvement. The physical examination revealed extensive cauliflower vulvo-vaginal and perianal warts with confluence in the mons pubis and labia majora bilaterally. The lesions appeared flat and brownish-black, and of variable diameter ranging from 0.5cm to 3cm. The lesions were not friable and did not bleed upon touch.

Due to the extensive nature of the lesions, a decision to undertake simple vulvectomy was made. The patient was consented for the surgery, wide excision was done with successful primary closure of wound site. Histopathology results confirmed giant condylomata acuminata, with no malignant changes noted and free margins. The wound healed by primary intention within one week of surgery. At one year follow up, the patient was still on HAART, no recurrence of the vulval lesions and a Pap smear cytology report was normal. She was advised on condom use, adherence to HAART and on the importance of sustained follow up.

We concluded that HIV-infected women on HAART are at risk for BLT, a severe disease associated with malignant transformation, vulvo-perineal examination should be scheduled into routine follow up for early diagnosis and treatment.

### Introduction

Giant condylomata accuminata also known as Buschke Lowenstein Tumor (BLT) is a benign extensive cauliflower like lesion that is commonly found in the genital area amongst HIV-infected women and men (1). Its etiology is Human Papilloma Virus (HPV). It is debilitating with extensive psychosocial maladjustments. HPV has many subtypes that infect skin and/or mucosal surfaces. The common low risk (non-oncogenic) HPV types that affect the genital mucosa are 6 and 11. While the high risk (oncogenic) types are 16, 18, 31, 33 and 45 (2). Human immunodeficiency syndrome (HIV) can alter the natural progression of HPV with predilection towards malignant transformation.

### Case Report

A 34 year old Para 4+0, HIV-infected woman on Highly Active Antiretroviral Therapy (HAART) for

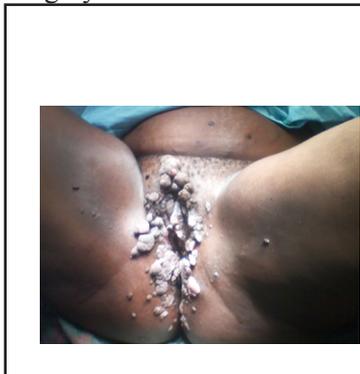
the past eight years, with no record of prior Pap smear cytology screening, assessment of CD4 counts or HIV plasma viral load presented to the gynecology clinic with a seven year history of progressive vulval growths and a five year history of per vaginal discharge and vulval pruritus. The growths were insidious in onset and progressive but with no associated pain. The vaginal discharge was yellow, watery, copious and not foul smelling. There was no history of dyspareunia or post coital bleeding. She had received treatment with various creams and antibiotics with no improvement. She gave no history of HPV vaccination.

Physical examination revealed extensive cauliflower vulvo-vaginal and perianal warts with confluence in the mons pubis and labia majora bilaterally. The lesions appeared flat and brownish-black, and of variable diameter ranging from 0.5cm to 3cm. The lesions were not friable and did not bleed on touch (Figure 1a). Due to the extensive nature of the lesions, a decision to undertake simple vulvectomy was made.

The patient was consented for the procedure which was successfully done with primary closure of the wound site (Figure 1b).

**Figure 1a:**

Giant condylomata before surgery



**Figure 1b:**

Giant condylomata after surgery



Histology of the specimen revealed the following: Skin with epidermis which exhibited marked acanthosis, papillomatosis and hyperkeratosis. Viral cytopathic effects and koilocytotic atypia was noted. Underlying dermis exhibited lymphoplasmacytic infiltration with free margins. HPV typing was not performed. No evidence of malignancy and a diagnosis made of giant condylomata accuminata.

The wound healed by primary intention one week after surgery. At one year follow up the patient was still on HAART, no recurrence of the vulval lesions and a Pap smear done was normal. She was advised on safe sexual practices including condom use to reduce HIV propagation and re-infection, adherence to antiretroviral therapy and on the importance of sustained follow up.

## Discussion

Immunosuppression with HIV is the main risk factor for Giant condylomata accuminata also known as Buschke Lowenstein Tumor (BLT). It has also been associated with pregnancy, diabetes, chronic steroid use and organ transplants. BLT is a benign lesion with a male to female's ratio of 2.7:1 and occurs on average at age 44 years (2) with about 50% potential for malignant transformation (3). HIV infected patients are at a higher risk of BLT because this group of patients have multiple HPV sub-types, persistent HPV infections and are at a higher risk of progression to cancer (4-6). Effects of administration of antiretroviral therapy on the clinical course of BLT have not been studied systematically. There are conflicting reports on the effect of antiretroviral therapy and HPV clinical entities (1, 2). This patient had been on antiretroviral for the past eight years and we did not elucidate the HPV subtype from her lesions nor do we know what preceded; the HIV or the HPV infection.

Symptoms of BLT include being unsightly, sexual dysfunction, foul odour, inability to sit or walk properly, pain, bleeding, pruritus, fistula, mechanical obstruction especially of the rectum resulting in ileus, difficulty in defecation and cachexia. After treatment, recurrence occurs in 18-67% with a mortality rate of between 24-30% (2). It is characterized by a giant cauliflower condyloma. It is benign but expansive, invasive with extensive local tissue destruction suggestive of malignant behavior. Histologically, it shows thickened squamous epithelium, prominent papillomatosis, fistulous tracts, intact basement membrane, lack of anaplasia or invasion but "pushing" rather than infiltrative effect. The case reported has similar gross appearance and the histological reports concurred.

Treatment is delayed because patients seek treatment when the disease has become extensive or due to primary provider delay who may not be familiar with the diagnosis or mistake it for other sexually transmitted infections. Optimal therapy is effective using a combination of modalities of surgery, chemotherapy and radiotherapy. With BLT in the genital area, surgical excision is the first line in the management. Radiotherapy is controversial due to possible anaplastic transformation and recurrence of condylomas. Excision for large lesions and postoperative immunomodulators have been used, imiquimoid cream has been used successfully for small lesions (2). Problems include high recurrence rate, difficulty in wound healing secondary to infection and morbidity due to large soft tissue defects. Long term follow up is mandatory because of risk of recurrence.

A limitation of this case report is that the patients' record did not provide information on her immune status as there were no CD4 counts or HIV plasma viral load results in her file. Despite this limitation this case report highlights the importance of provider awareness, routine vulvo-perianal examination especially in high risk populations, to increase to chances of detecting lesions early with an aim of using more conservative treatments like imiquimoid cream.

## Conclusion

There is need for prophylactic quadrivalent HPV vaccination before sexual debut and advocacy for safe sexual practices as a preventive measure. Due to the intimate co-relationship between HIV and HPV viruses HIV-infected women should routinely have vulva-perineal examination and cervical cancer screening. This is to aid early diagnosis and use of none invasive treatment of lesions avoiding radical treatment with its complications. Individuals diagnosed with BLT require long-term follow up to asses for malignant transformation.

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