Case Report

Buschke-Lowenstein Tumor: A Case Report

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ABSTRACT

Giant Condyloma Acuminata also known as Buschke-Lowenstein tumor is a relatively rare sexually transmitted disease. It is characterized by rapid growth, local destruction, lack of spontaneous resolution, poor response to conservation therapy and high recurrence rate. Human Papilloma Virus has been implicated as an etiologic agent for this tumor. Radical excision of the lesion is generally recommended as the first line of therapy and close vigilance & follow up are essential. We report a case of 25 year old male who presented with large, exophytic mass in the perianal region which was surgically excised and after histopathological examination diagnosis of Buschke-Lowenstein tumor was made.

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Introduction

Giant Condyloma Acuminata also known as Buschke-Lowenstein tumor was first described by as Buschke & Lowenstein in 1925.[1] They observed a penile lesion that clinically resembled both common Condyloma Acuminata & Squamous Cell Carcinoma but differering from both of them regarding the biologic behaviour & histopathologial appearance.[2] It is a slow growing, locally destructive tumor. It is thought to be induced by Human Papilloma Virus types 6 & 11 and occasionally types 16 & 18.[1] The most important treatment modality is surgical excision of the mass.[3] A regular follow up is necessary because of the frequent recurrences & possible malignant transformation[4]

We report a case of a patient with Buschke -Lowenstein tumor located in the perianal region that reached huge dimensions and was treated with surgical excision.

Case Report

A 25 year old heterosexual male presented with progressively enlarging mass in the perianal region since 6 months. He complained of difficulty in walking, pruritus & occasional pain at the site of mass. He did not report any risk factors for HIV infection.

On examination, the mass was located in perianal region, bulky, exophytic & cauliflower like measuring 12x8x6xcm. The mass was tender to touch. No inguinal lymphadenopathy was noted. Systemic examination as well as basic haematological & biochemical investigations were within normal limit. Patient's HIV test was nonreactive. The mass was surgically excised.

Fig. 1: Specimen showing bulky, exophytic, papillary cauliflower like tumor mass

The specimen of tumor mass with surrounding normal skin was received in the histopathology section of the department of Pathology. Tumor mass measured 15x10x6 cm. Externally the tumor showed exophytic, papillary cauliflower like growth. (Fig No 1) Cut section of the mass was solid, greyish white without areas of haemorrhage & necrosis.

Microscopically it showed stratified squamous epithelium showing hyperkeratosis, parakeratosis, acanthosis & papillomatosis with minimal cytological atypia. Koilocytic change was also evident in the epithelium. The underlying fibrocollagenous tissue showed scant chronic inflammatory infiltrate. (Fig. 2 &3) From the above histological findings diagnosis of Buschke-Lowenstein tumor was made. Careful clinical follow up was advised.

Discussion

Giant Condyloma Acuminata also known as Buschke - Lowenstein tumor is a very rare sexually transmitted disease. It was originally described in 1896 by Buschke & Lowenstein in 1925 and later on was named by Lowenstein as benign carcinoma like Condyloma Acuminata of the penis.[2]

It's incidence is estimated to be 0.1 % in general population. [5] Human Papilloma Virus DNA types 6 & 11 have been most commonly recovered from the pathological specimens. Risk factors for HPV transmission include multiple sexual partners, prostitution, homosexuality, lack of hygiene & chronic genital infections. Buschke - Lowenstein tumor is always preceded by Condyloma Acuminata. It can be associated with congenital or acquired

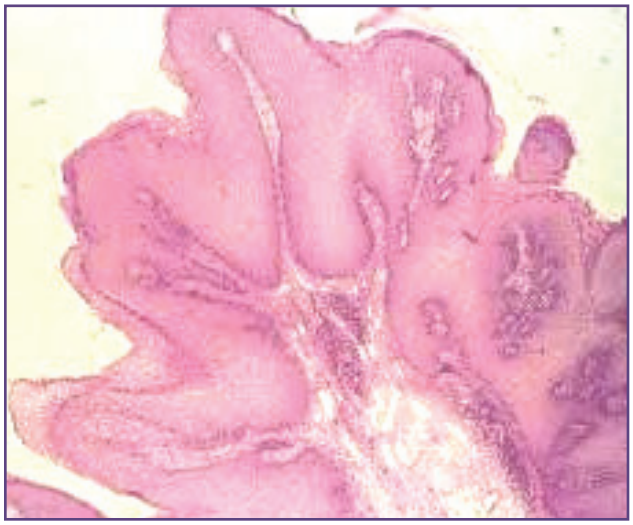

Fig. 2: Photomicrograph showing stratified squamous epithelium showing acanthosis hyperkeratosis & papillomatosis (H& E, 5X)

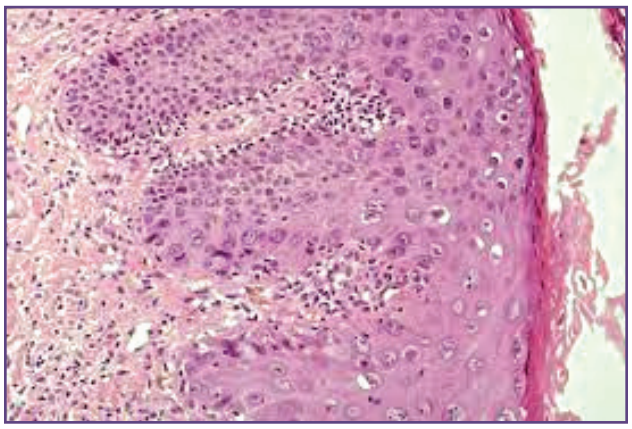

Fig. 3: Photomicrograph showing stratified squamous epithelium showing koilocytic change, minimal cytologic atypia & intact basement membrane (H&E , 10X)

immunodeficiency, alcoholism, diabetes or chemotherapy or immunosuppressive therapy.[6]

Males are most commonly (M: F 2.7:1) but some cases have also been seen in females & children.[7] The tumor is located on the penis in 81-94 % of cases, in the anorectal area in10-17% cases and in urethra in 5% of cases. In females the location is chiefly vulva (99 %) and an anorectal location is less frequent.[6] Clinically the tumor presents as exophytic fungating mass sometimes with cauliflower like morphology.[1,6]

The characteristic histologic feature is a well differentiated hyperplastic, hyperkeratotic & parakeratotic stratified squamous epithelium showing papillomatosis with minimal atypia. Koilocytic change has also been observed.[8] Even though Buschke - Lowenstein tumor has a histologically benign appearance, it clinically behaves in a malignant fashion destroying the adjacent tissues. It is an intermediate entity between an ordinary Condyloma Acuminata & Squamous Cell Carcinoma.[1] Some authors suggested that Giant Condyloma Acuminata or Buschke- Lowenstein tumor is a type of low grade Squamous Cell Carcinoma but others disagree.[8] It can be differentiated from Squamous Cell Carcinoma by it's characteristic pushing endophytic margins, negligible cellular atypia & low mitotic rate. Buschke – Lowenstein tumor is classified as Verrucous carcinoma by some of the authors.[4] Verrucous carcinoma resembles Buschke – Lowenstein tumor in clinical appearance and histology. So they consider these lesions to be similar. However , Buschke-Lowenstein tumor is generally the name given to a Verrucous carcinoma in genital regions by some of them. [5]

Most author recommend radical surgical excision allowing complete histopathological examination & assessment of tumor for resected margins. Other adjuvant modalities could be of interest to avoid mutilating surgical interventions such as laser, radiotherapy, intralesional interferon alfa or topical imiquimod.

Vigilant & prolonged surveillance & regular follow up is necessary because of the frequent recurrences & possible malignant transformation.[4] Local recurrence rate after surgical excision is high, up to 60-66 % .[4&5] Malignant transformation occurs in 30-50 % of patients which is again associated with high recurrence rate & poor prognosis.[4] Malignant transformation is suspected when bleeding, pain and rapid increase in the size of the tumor .[5] The biopsy must be wide & deep enough to accurately determine the extension of the tumor and the possible presence of Squamous Cell Carcinoma.[2]

Our patient was a 25 year old heterosexual male who presented with bulky cauliflower like mass in the perianal area which was treated with wide surgical excision. Histopathological diagnosis of Buschke- Lowenstein tumor was made. The patient is on regular clinical follow up & is free from any recurrence till now i.e.10 years.

Conclusion

Since all lesions of Buschke - Lowenstein tumor initially start as Condyloma Acuminata & progress over many years, early surgical excision in the treatment of Condyloma Acuminata prevents development of Buschke- Lowenstein tumor.

Buschke - Lowenstein tumor represents a constant challenge for the surgeons. The surgical excision remains the gold standard treatment. A detailed histopathology examination is mandatory because microscopic excision with tumor free margin presents a decreased recurrence rate compared to macroscopic excision. [3,6]

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Competing Interests

None declared

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