

A case of a large verrucous swelling over the scrotum

Kamal Ahmed, Hardeep Singh, AS Kumar, Iqbal Ahmed

Department of Dermatology and STD, Owaisi Hospital and Research Centre, DCMS, Hyderabad, Andhra Pradesh,
Department of Plastic Surgery, Bangalore Medical College, Bangalore, Karnataka, India

Address for correspondence:

Dr. Kamal Ahmed, 12-2-709/C/191, Padmanabaha Nagar, Hyderabad, Andhra Pradesh, India. E-mail: drkam20a@yahoo.com

A 45-year-old male patient came to the department of dermatology with complaints of a large exophytic, cauliflower-like verrucous tumor present over the right lateral aspect of the scrotum at the penoscrotal junction [Figure 1]. The tumor had evolved progressively for 3 to 4 years to the present size i.e. 5 × 6 cm in size.

Routine investigations like complete blood picture, liver function test (LFT), and renal function test (RFT) were within normal limits. HIV1 and 2

testing was negative. An extensive surgical excision was performed and the excised tissue was sent for histopathological examination. It revealed orthokeratosis, parakeratosis, with acanthosis and marked papillomatosis. The cells displayed a vacuolated cytoplasm with irregular and large nuclei scattered in the stratum malpighi (koilocytes) [Figure 2]. There were no signs of dysplasia in the epidermis dermis showing polymorphous infiltrate.

WHAT IS YOUR DIAGNOSIS?



Figure 1: Large exophytic, cauliflower like verrucous tumor present over the penoscrotal junction

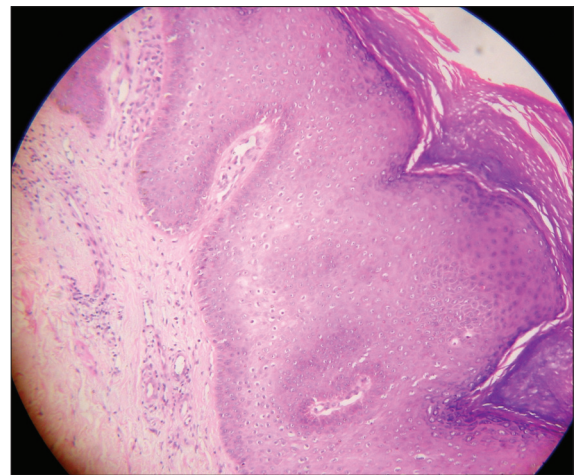


Figure 2: HPE revealed orthokeratosis, parakeratosis with acanthosis and marked papillomatosis (H and E, 40 X)

Access this article online

Quick Response Code:



Website:

www.ijstd.org

DOI:

10.4103/0253-7184.102133

How to cite this article:

Ahmed K, Singh H, Kumar AS, Ahmed I. A case of a large verrucous swelling over the scrotum. Indian J Sex Transm Dis 2012;33:141-3.

Answer: Buwtschke–Lowenstein tumor

DISCUSSION

Giant condyloma acuminatum, also known as Buschke–Löwenstein tumor, was first described by Buschke and Löwenstein in 1925. This slow-growing, locally destructive tumor of the ano-genital region is thought to be induced by human papillomavirus (HPV), most commonly HPV types 6 and 11 and occasionally types 16 and 18. It is associated with extensive local infiltration and a high propensity to recur. Most authors consider it to be a verrucous carcinoma, a variant of squamous cell carcinoma that seldom metastasizes.^[1,2] Histological examination, however, may reveal pockets of squamous cell carcinoma, a risk factor for metastasis. Giant condyloma acuminatum most often affects the glans penis, but has also been reported in the scrotum, vulva, the peri-anal region, ano-rectum and the bladder.^[3]

Scrotal giant condyloma acuminatum tumors are rare. While ano-genital condyloma acuminatum or warts are common lesions in patients with HIV, giant condyloma acuminatum and Buschke–Löwenstein tumors in patients with HIV are very rare.^[4,5]

Giant condyloma acuminatum generally occurs in adults, but has also been reported in children.^[6] Poor penile hygiene is a known predisposing factor, while chronic inflammation (peri-anal fistuli), immunosuppression (HIV or therapy), diabetes, pregnancy, poor socioeconomic status, and smoking are recognized risk factors.

BLT occurs at any age after puberty, usually between the 4th and 6th decades.^[7] Males are more frequently involved, the M/F sex ratio being 3.3. It is located on the penis in 81 to 94% of cases, in the anorectal area in 10 to 17%, and in the urethra in 5%. In females, the location is chiefly the vulva (90%) and anorectal location is less frequent.^[8]

Clinically it appears as a large, cauliflower-like, white or yellow tumor of papillomatous and irregular surface, eventually exceeding 10 cm².^[9] Histopathology reveals papillomatosis and severe acanthosis. The hyperplastic epithelium is usually well differentiated; however, there are vacuolated epidermal cells displaying clear cytoplasm and hyperchromatic nuclei. The basal membrane is intact, and a lymphohistiocytic inflammatory infiltrate is present in the upper dermis.^[10]

The biopsy should be deep enough to comprise the entire tumor and especially the epidermal/dermal



Figure 3: Wide excision and repair of the tumor done

interface. Differentiation between BLT and verrucous carcinoma is difficult. Some authors consider these lesions to be similar. However, others maintain that BLT represents an intermediate lesion between condyloma acuminatum and verrucous carcinoma, referring to it as a condyloma-like precancerous lesion.^[9] The common differential diagnoses are Bowen's disease (its dyskeratotic condylomatous form), keratotic pseudoepitheliomatous balanitis, and squamous cell carcinoma.

Wide surgical excision, radiochemotherapy, topical and intra-lesional chemotherapy, carbon dioxide laser therapy, and photodynamic therapy have all been used in different combinations in the treatment of giant condyloma acuminatum, with varying success. Tytherleigh *et al.*^[11] reported the successful use of neo-adjuvant chemoradiotherapy to down-size a tumor with subsequent complete surgical excision. The administration of an autogenous vaccine after surgical excision has the lowest reported recurrence rates at one year (less than 5%).^[12] There is a risk of transformation of a giant condyloma acuminatum into an aggressive squamous cell carcinoma (30% to 56% over five years), in addition to a 10% risk of anaplastic transformation after radiotherapy.^[1,8]

Surgery is the treatment of choice and is effective in the early stages of the disease. Excision must be wide and the Mohs technique is often used^[7,8] Lymph node dissection is indicated only in cases of suspected malignant transformation. Radiotherapy is rarely used; if so, usually when excision is not recommended or in recurrences. Post-treatment clinical monitoring is strongly suggested.

In our patient, wide excision of the tumor was performed. The patient recovered well after extensive surgery [Figure 3].

REFERENCES

1. Gholam P, Enk A, Hartschuh W. Successful surgical management of giant condyloma acuminatum (Buschke-Löwenstein tumor) in the genitoanal region: A case report and evaluation of current therapies. *Dermatology* 2009;218:56-9.
2. Bertram P, Treutner KH, Rübber A, Hauptmann S, Schumpelick V. Invasive squamous-cell carcinoma in giant anorectal condyloma (Buschke-Löwenstein tumor). *Langenbecks Arch Chir* 1995;380:115-8.
3. Meli BG, Ramos H, Gomez LA. Giant condyloma acuminatum (Buschke-Loewenstein tumour) of the scrotum. *Eur J Plast Surg* 1994;17:43-7.
4. Sepou A, Zoguereh DD. Giant anovulvar condyloma acuminata revealing HIV-1 seropositivity in a Centrafrican patient. *Med Trop* 1998;58:378-80.
5. Granados E, Palou J, Rios G, Vicente J. Urologic pathology in patients positive for anti-HIV antibodies. *Actas Urol Esp* 1989;13:378-80.
6. Garazzino S, Canavese F, Coppo P, Cortese MG, Pucci A, Mignone F, *et al.* An infant presenting with a voluminous exophytic perineal mass. *Pediatr Infect Dis J* 2010;29:577-83.
7. el Mejjad A, Dakir M, Tahiri M, Attar H, Cherkaoui A, Araki A, *et al.* [Giant condyloma acuminata -- Buschke Lowenstein tumor (report of 3 cases)]. *Prog Urol* 2003;13:513-7.
8. Qarro A, Ait Ali A, Choho A, Alkandry S, Borki K. [Anorectal Buschke-Loewenstein tumor. (Three cases report)]. *Ann Chir* 2005;130:96-100.
9. Gillard P, Vanhooteghem O, Richert B, De La Brasine M. Tumor de Buschke-Loewenstein. *Ann Dermatol Venereol* 2005;132:98-9.
10. Buschke A, Löwenstein L. Über carcinomähnliche condylomata acuminata des Penis. *Klin Wochenschr* 1925;4:1726-8.
11. Tytherleigh MG, Birtle AJ, Cohen CE, Glynn-Jones R, Livingstone J, Gilbert J. Combined surgery and chemoradiation as a treatment for the Buschke-Löwenstein tumour. *Surgeon* 2006;4:378-83.
12. Wiltz OH, Torregrosa M, Wiltz O. Autogenous vaccine: The best therapy for perianal condyloma acuminata? *Dis Colon Rectum* 1995;38:838-41.

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