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CASE REPORT

A case of penile Buschke–Lowenstein tumor in a developing country

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Key Clinical Message

Buschke–Löwenstein tumor is a rare manifestation of a sexually transmitted human papilloma virus infection that affects the anogenital area. Wide local excision of the lesion is the mainstay of treatment. Malignancy though must be excluded.

Keywords

Buschke–Löwenstein tumor, condyloma acuminata, human papilloma virus.

Introduction

Buschke and Löwenstein first described a giant condyloma acuminata in a male patient in 1925 [1]. Buschke–Löwenstein tumor (BLT) is a rare manifestation of a human papilloma virus infection (HPV) that affects the anogenital area [2]. In most cases, patients do not seek medical treatment due to shyness surrounding the anatomical location of the pathology.

Case Presentation

An indigenous 57-year-old Fijian male presented to the Urology Clinic with a presenting complaint of a cauliflower-like mass surrounding his penis. The mass had been progressively growing for more than 10 years. The patient reported a history of multiple sexual partners in his youth and denied any weight loss. He had not sought medical intervention early as he was shy and only due to its foul-smelling nature that he decided to seek treatment. On examination, there was a large verrucous, malodorous growth that covered the entire penile shaft circumferentially and extended to the suprapubic area and the superior aspect of the scrotal skin (Fig. 1). Purulent discharge was noted around the edges of the growth. There was no inguinal lymphadenopathy. His HPV and HIV serology were negative. Initial punch biopsy of the lesion showed hyperkeratosis, acanthosis, and focal papillomatosis with full thickness dysplasia of epithelium and focal koilocytosis. Malignancy was excluded. CT scan of the abdomen and pelvis showed an ill-defined mass lesion seen at the penile shaft with calcifications within it. No evidence of inguinal or pelvic lymphadenopathy could be identified. Under general anesthesia, a wide local incision was performed to remove the lesion in its entirety which was achieved by completely degloving penis with adequate skin margins on the suprapubic and superior scrotal areas (Fig. 2). The suprapubic defect was closed using keystone island perforator flaps [3], and the degloved penis wound defect was reconstructed by placing split-thickness skin graft obtained from the left lateral thigh (Fig. 3). To avoid graft shearing and fluid accumulation under the graft, we used tongue depressors and a modified vacuum-assisted dressing technique as described by Senchenkov et al. [4]. The dressing was removed 5 days postoperatively. The histopathological picture of the resected lesion showed a typical case of BLT with hyperkeratosis, epithelium acanthosis, and florid viral koilocytosis. The basement membrane appeared intact and the resection margins were not involved. The patient was followed – up at 6 and 12 months postoperatively with

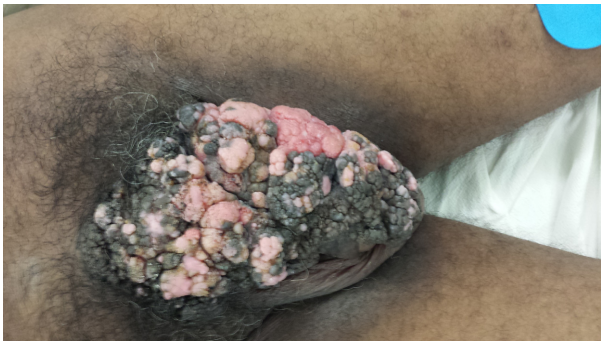

Figure 1. Penile Buschke–Löwenstein tumor (BLT).

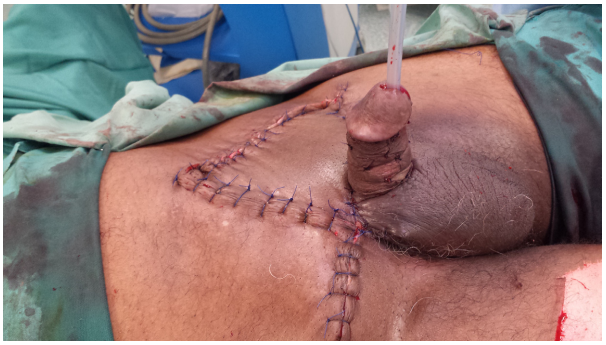

Figure 3. Reconstruction of wound defects.

no local recurrence noted. He was happy with the appearance of his penis and reported normal sexual function (Fig. 4).

Discussion

Buschke–Löwenstein tumor is a rare manifestation of HPV disease which usually arises around the male and female external genitalia with an estimated incidence around 0.1% in the general population [5]. It has a benign histological appearance, rarely metastasizes, and it invades by expansion rather than infiltration [6]. HPV types 6 and 11 have been reported as a contributing factor in the development of BLT [7, 8].

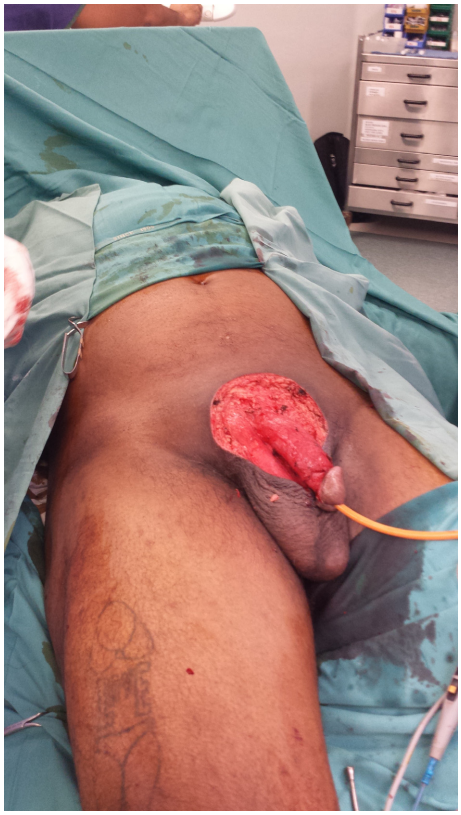

Figure 2. Postexcision.

Figure 4. Weeks postreconstruction.

There are currently no randomized controlled trials evaluating the ideal treatment of BLT [9]. Different modalities such as topical agents (e.g., podophyllin, trichloroacetic acid, imiquimod), intralesional injections of interferons, chemotherapy, radiotherapy, and surgery have yielded varying results [9–12].

Surgery is currently regarded as the best method of treatment of BLT in most case reports and case series with high success and low recurrence rates [2, 13, 14]. Tripoli et al. in their series of 27 patients treated with radical excision and split-thickness skin graft noted no recurrences in their follow-up, and ninety-four percent were satisfied with cosmetic and appearance [14].

In summary, wide local excision with clear margins and reconstruction of the wound defect with split-thickness skin grafts and keystone perforator island flap techniques provide an excellent cosmetic and sexual functional result as demonstrated in our patient.

Authorship

RP: wrote the manuscript with advice and editing from SK.

Conflict of Interest

The authors declare that they have no competing interests.

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