

Successful Treatment of Buschke-Löwenstein Tumor Combining Surgery and Glucan Therapy

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ABSTRACT

Background: Buschke-Löwenstein tumor (BTL) is a giant condyloma acuminatum considered to be a putative precancerous lesion with a high recurrence rate after treatment.

Case Presentation: We report a 31-year-old patient presenting with a giant condyloma acuminatum in the perineum and vulvar region. The tumor was removed by wide radical excision followed by plastic reconstruction. The patient did not develop local recurrence or distant metastasis as observed over the one-year follow up appointment.

Conclusion: This is a case report concerning successful treatment of Buschke-Löwenstein tumor combining surgery and Glucan therapy with excellent functional and cosmetic results.

KEYWORDS

Buschke-Löwenstein Tumor; Treatment; HPV-6.

INTRODUCTION

Giant condyloma acuminatum or Buschke-Löwenstein tumor (BTL) is a slow-growing, locally aggressive and disfiguring cauliflower-like tumor that typically affects the anogenital and perianal regions. BTL is a rare HPV-induced squamous cell carcinoma. It was first described in 1925 by Buschke and Löwenstein as a benign carcinoma-like condyloma acuminatum [1]. Despite being histologically classified as a non-malignant tumor, malignant transformation can occur in 40-60% of cases and the recurrence rate after treatment can be as high as 67% [2, 3]. We report the case of a 31-year-old female patient with a history of vulvar lesion.

CASE REPORT

A 31-year-old woman, two previous cesarean sections, first

coitus at age 14 and 5 sexual partners during lifetime with non-compliance of condom use and no sexual partner at the time of the investigation presented with a giant condyloma acuminatum with concomitant bacterial infection. Physical examination showed exophytic tumor on the mons pubis, labia majora, labia minora, vaginal introitus, perineum and anus (Figure 1). The patient reported a small warty lesion in the vulvar region one year ago associated with difficulty in defecation and sexual intercourse. She did not report weight loss and she was afebrile and hemodynamically stable. The patient was screened for HIV, syphilis and hepatitis B and C infections and the results were nonreactive. Clinical and cytological evaluations of the cervix and vagina could not be performed by the time of admittance because of mechanical obstruction.



Figure 1: A) Exophytic, cauliflower-like verrucous tumor with irregular surface on the mons pubic, labia majora, labia minora, vaginal introitus, perineum and anus; B) Postoperative after extensive surgical excision; C) 10th postoperative day showing local infection and suture dehiscence; d) 75th postoperative Day showing second intention healing; E and F) Late postoperative showing full recovery (1 year).

Since most of the exophytic lesions have a pedicled base, surgical excision of the condyloma was performed by fusiform incision with a safety margin of 0.5 cm. The wound was sutured by approximation of wound margins (Figure 1) and the perineum was healed by second intention. During the surgery a pap smear was sampled and clinical evaluation was performed. There were no macroscopic lesions in the cervix or vagina.

Postoperatively, the patient developed dehiscence of the skin suture with secondary bacterial infection. Intravenous antibiotic therapy administered included cefalotin, metronidazole and garamycin, along with local application of potassium permanganate and four daily bandages embedded with Dersane®.

On postoperative day 15, the infection cleared and the patient was discharged but still had a partially granulated wound. Patient was followed up weekly for 3 months for evaluation and sub-cutaneous application of Glucan (B-1,3-D-Glicopiranoze) for 20 weeks.

A repeated screening test for HIV, syphilis and hepatitis B and C infections were negative and the Pap smear showed no abnormalities. Histological examination of the excised tissue

revealed papillomatosis, acanthosis, hyperparakeratosis and keratinocytes with polymorphic nuclei, dense chromatin, perinuclear halo and keratohyalin granules (Figure 2).

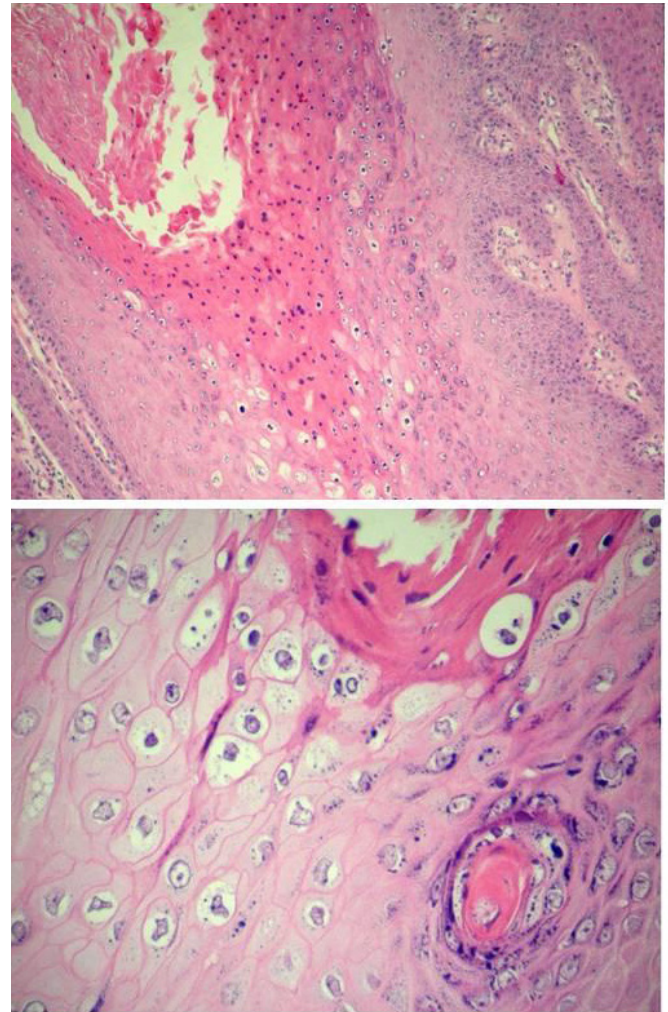


Figure 2: Hyperparakeratosis with polymorphic nuclei. papillomatosis and acanthosis. Keratinocytes with polymorphic nuclei, dense chromatin, perinuclear halo and keratohyalin granules.

The sample was screened for HPV DNA using the standard nested PCR approach of the MY09/11 primer set (primary PCR) and the GP5+/6+ primer set (secondary PCR) [4, 5]. The HPV genotype 6 was detected by multiplex PCR with consensus primers as described by Nishiwaki et al. [2]. The patient did not develop local recurrence or distant metastasis as observed over the one-year follow up appointment.

DISCUSSION

BTL is a rare sexually transmitted disease, triggered by HPV, especially by genotypes 6 and 11 [3, 6, 7]. The host immune response is involved in viral persistence and progression of lesions, and it has been suggested that the Buschke-Löwenstein tumor might be an intermediate lesion within a continuous spectrum of biologically related tumors from the condyloma to the invasive squamous cell carcinoma [8].

This case demonstrates the classical findings of a Buschke-Löwenstein tumor regarding history, epidemiology and clinical features. BTL might occur at any age after puberty, usually between the 4th and the 6th decades and it can affect both men and women [9-12]. Risk factors include anoreceptive intercourse, HIV and immunosuppression. Giant condyloma acuminatum affects glans penis, scrotum, vulva, perianal region and ano-rectum, with extremely rare involvement of the bladder although it has already been described [13].

Even though no standard treatment has been defined to BTL, most reports suggest that the radical surgical excision with resection of margins is the best choice if the anal canal is not involved [12]. Chemoradiation has also been used either in conjunction with radical surgery in cases of disease recurrence or as a sole treatment [14-16]. Another treatment employed is laser application and a recent report supports the use of oral acitretin and topical imiquimod in some cases [3, 17].

Patients with BTL must be very carefully investigated regarding the extension of penetration of the tumor into surrounding structures to ensure proper management of the lesion and the follow up is an essential part of the treatment as it allows the screening of relapse and malignization cases.

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