

Giant condyloma acuminatum – two cases with microinvasive foci in one

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Background: Giant condyloma acuminatum (GCA) is a rare warty lesion which can be accompanied by human immunodeficiency virus (HIV) positivity and other venereal diseases and may show atypical changes in the basal layers and progress to invasive squamous cell carcinoma.

Cases: Fifty-three and 55 years old two male cases of GCA are presented in this paper. The first case had multiple large, cauliflower-like cutaneous lesions in various skin sites while the other had anal lesions. Serological tests for HIV and syphilis for both patients were negative. Human papilloma virus (HPV) 6/11 were detected by in situ hybridization in the first case. HPV 6, 11, 16, 18, 31 and 33 were negative but panHPV was positive in the second case. Smear control of the wives were normal. Histologically, the first case showed only koilocytotic atypia while the other had widespread squamous cell carcinoma in situ with microinvasive foci.

Conclusion: We considered these two cases were worthy to be reported, in order to emphasize that both the patients and their spouses should be evaluated with respect to HPV, HIV and other venereal diseases, and multiple samples should be examined with serial sections due to the fact that atypia and invasion may develop in these lesions.

Key words: Giant condyloma acuminatum; Buschke-Loewenstein tumor; verrucous carcinoma

Introduction

Giant condyloma acuminatum (GCA) was first identified by Buschke and Loewenstein as penile condyloma resembling carcinoma with no true microscopic invasion findings.^{1,2} It may develop both in the penis and anorectal regions and female genital organs.^{1–8} It is histologically benign, but may behave malignant clinically.^{1,2} There is still a controversy over the etiopathogenesis and treatment of this rare entity.

The term giant condyloma of Buschke-Loewenstein tumor is considered to be a synonymous for verrucous carcinoma.^{5,7,8}

Cases

Case 1

Multiple lesions growing slowly for five years and involving penis, scrotum, perineum, inguinal region, abdomen and chest were excised from the 53-year-old married male. The results of serological tests for human immunodeficiency virus (HIV) and syphilis on the patient and on his spouse were negative. Smear controls of his wife revealed no findings of cervical human papilloma virus (HPV) infection or cervical intraepithelial neoplasia (CIN).

Grossly, the largest lesion was 22.5x10.5x5 cm in size while the smallest was 3.5x3x1 cm. On cut

surface, gray-white papillomatous proliferations around solid cores of yellow-brown, cauliflower-like lesions were seen (Figure 1). Several samples were taken from each lesion.



Figure 1. Cut surface of resection material showing an exophytic cauliflower-like lesion (case 1).

Microscopic findings revealed papillary lesions characterized with hyperkeratotic and acanthotic epidermis and fibrovascular cores. In some parts of the epidermis, koilocytotic atypia characterized with perinuclear halo, hyperchromatic and irregular nuclei were observed (Figure 2). In the fibrovascular areas beneath the epidermis, chronic inflammatory cell infiltration was detected.

HPV 6/11 were detected by *in situ* hybridization in this case.

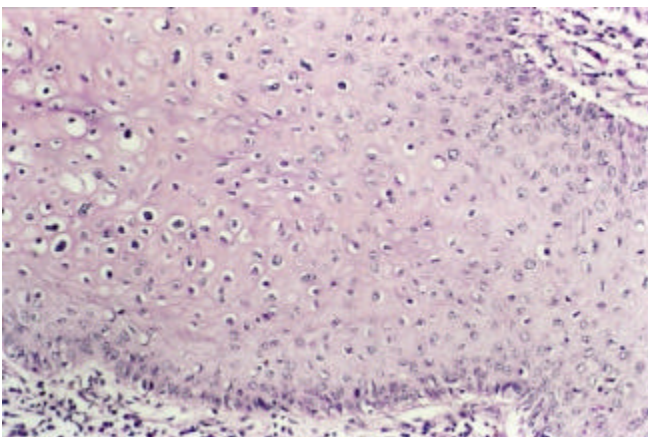


Figure 2. Koilocytotic atypia in the squamous epithelium (HE; X200)

Case 2

Fifty-five-year-old married male who had a slow growing, foul-smelling mass extended to linea dentata in the anorectal area for six years had undergone surgical excision.

As in the first case, the results of serological tests for HIV and syphilis in the patient and his spouse were negative. Cervical smear controls of his wife revealed usual cytopathological features.

Macroscopically, both of the cauliflower-like lesions were gray-white and brown in color and 12x4.5x3 cm and 8.5x5x4 cm in size (Figure 3). In cut surfaces, white color and thickening of the lining of skin folds in some areas were taken into notice. Multiple samples were taken especially from the latter areas.



Figure 3. The huge cauliflower-like lesion (case 2)

Discussion

GCA was first identified by Buschke and Loewenstein in 1925 as penile condyloma resembling carcinoma without true microscopic invasion findings.^{1,2} The term giant condyloma of Buschke-Loewenstein tumor is considered to be a synonymous for verrucous carcinoma.^{5,7,8} Although it is mostly localized on glans penis and its surroundings, it may also appear in vulvar and anorectal regions.¹⁻⁸ There are some other cases localized in endocervix, lower uterine segment, bladder, prostate, urethra and a chronic pilonidal sinus.^{4,9} The first patient had multiple lesions localized to penis, scrotum, perineum, inguinal region, abdomen and chest. The second patient had anorectal lesions.

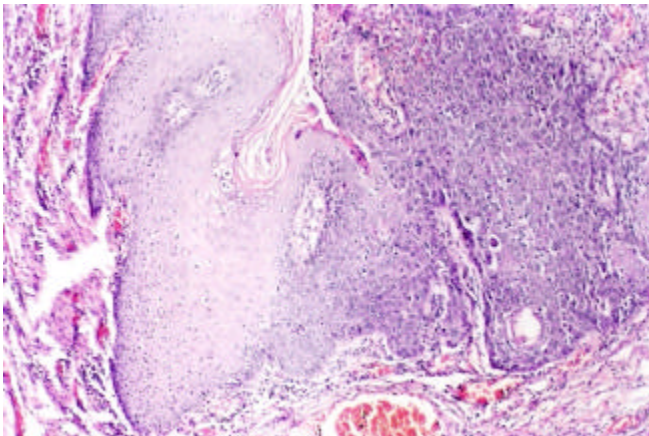


Figure 4. Sharp transition between mature squamous epithelium and dysplastic areas (HE; x100)

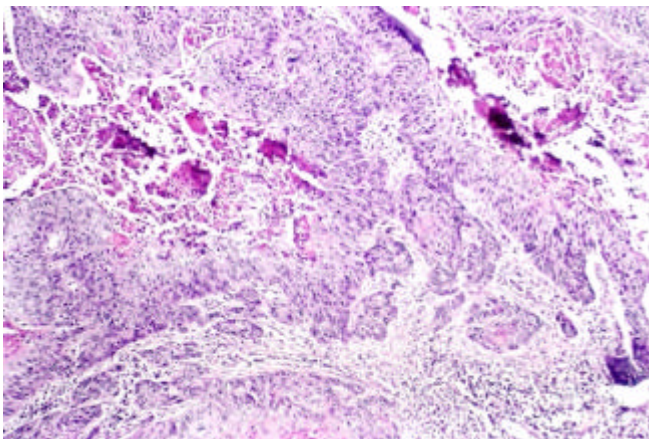


Figure 5. Microinvasive foci within the giant condyloma acuminatum (HE; x100)

It rarely occurs in children.^{5,10} The mean age and male/female ratio are reported as 43.9 and 2.7/1, respectively.¹¹ One of our patients was 53 and the other was 55 years old and both of them were male.

It has been considered that human papilloma virus plays an important role in the etiology of GCA. HPV type 6 (in 66-100% of the cases) and HPV type 11 (in 33% of the cases) were found to be the main factor in most cases while in some other cases HPV types 1, 4, 16, 18, 31, 33, and 35 were also identified (1-3, 5-8, 10, 12). Because of the possibility of occurring together with AIDS and venereal diseases, not only the patient but also his or her spouse should be examined since these infections are sexually intermitted. HPV 6/11 were detected by *in situ* hybridization in one of our cases. HPV 6, 11, 16, 18, 31, 33 were negative but panHPV was positive in other

case. In our patients and their spouses, serological test results for HIV and syphilis were negative and smear controls of their spouses revealed no findings for HPV and CIN.

Immunosuppression, coexisting HIV infection, irritant effects of long-term anal sex and unhygienic conditions not only are the risk factors in the development of GCA but also play a role in malignant transformation.^{1,2} We observed dysplastic areas and a few microinvasive foci in the lesions of the second patient.

GCA mostly develops from pre-existing anogenital condyloma. It shows sometimes endophytic but generally exophytic growth pattern and a tendency to form fistula with bacterial colonization. Abscesses and fistulas are more common in lesions in perianal regions and quite dangerous since they may lead to chronic sepsis.^{1,2} No complications were occurred in the lesions of our cases prior to the excision.

Blood vessel or lymphatic invasion and metastasis to lymph nodes or distant sites have not been reported, but recurrence is common. Recurrence rate after the excision ranges between 65% and 70%. Mean recurrence period is reported to be 10 months.^{1,2,13} No recurrence was observed in our cases after 30 and 18 months of follow-up periods.

Contrary to the original definition, malignant transformation may also occur.^{1,2,6-8,13} In a study, it was reported that there was malignant transformation to squamous cells carcinoma in 56% of the cases with GCA.¹³ Atypia involving full thickness of epidermis and foci of microinvasion were also identified in some areas in one of our cases. Since atypia and invasion can only be seen in limited areas, material should be examined with multiple samples and serial sections.

Although electrocautery, podophyllin and laser could be applied for treatment, the most reliable method, as performed in our patients, is still total excision.^{7,14,16} For recurrent lesions, or in patients who had pelvic invasion or malignant transformation, abdominoperineal resection should be performed. In patients with non-resectable lesions, radiotherapy could be applied either alone or along with chemotherapy preceding the surgery, keeping the co-carcinogenic effects of the radiation in mind.^{1,2,6,10,13,15-17} Systemic or intralesional treatment

with interferon, which has been said to be sufficient enough for complete regression in cases of GCA,¹⁸ might be another choice of treatment.

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