

## Case Report

# Treatment of A Giant Condyloma Acuminatum by Surgical Excision

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### ABSTRACT

Giant condyloma acuminatum, also known as Buschke-Löwenstein tumor that occurs in ano-genital region and transmitted by sexual way. Giant condyloma acuminatum is an indolent cauliflower-like tumor, but unlike simple condyloma, it is locally aggressive and destructive. In spite of its histologically benign appearance, it may behave malignantly. We present in this report a 55 years old married male with giant condyloma located at the involving penis, scrotum, perineum, and inguinal region. An extensive and aggressive surgical excision was performed. The entire wound was repaired with a split thickness graft. He was healthy without any evidence of tumor at the end of four postoperative years.

**Keywords:** Buschke-Löwenstein tumor, giant condyloma acuminatum, surgical excision

### ÖZET

#### Dev Kondiloma Aküminata Olgusunun Cerrahi Eksizyon ile Tedavisi

Dev kondiloma aküminata, Buschke-Löwenstein Tümörü olarak bilinen, seksüel yolla bulaşan ve ano-genital bölgede görülen bir cilt lezyondur. Dev kondiloma aküminata, ağrısız, karnıbahar görünümünde ve basit kondilomanın aksine, lokal agresiv ve destrüktiftir. Histolojik olarak benign görünmesine rağmen, malign karakterde davranabilmektedir. Bu raporda, 55 yaşında evli bir erkek hastada penis, skrotum, perineum ve inguinal bölgeyi kaplayan dev kondiloma aküminata olgusu sunulmuştur. Geniş ve agresif cerrahi eksizyon yapılarak oluşan defekt kısmi kalınlıktaki deri grefti ile onarılmıştır. Postoperatif dönemde tamamen iyileşen hastada yapılan 4 yıllık takibinde nüks görülmemiştir.

**Anahtar Sözcükler:** Buschke-Löwenstein tümörü, dev kondiloma aküminata, cerrahi eksizyon

**G**iant condyloma acuminatum (GCA), also known as Buschke-Löwenstein tumor (BLT) that occurs mostly in the ano-genital region and is sexually transmitted. It was first described by Buschke and Löwenstein in penile area as a carcinoma without microscopic invasion findings (1). GCA is an indolent cauliflower-like tumor, but unlike simple condyloma, it is locally aggressive and destructive (2). In spite of its histologically benign appearance, it may behave malignantly. Some authors consider that GCA is an intermediate lesion between verrucous carcinoma and condyloma acuminatum. GCA has a risk for transformation into an aggressive squamous cell carcinoma (2-4). Surgery is the primary treatment choice (2,3,5) but a high rate of local recurrence exists after excision (about 50-60% ) (6). Herein, we present a GCA which was successfully treated without recurrence by surgical excision with a four year follow-up period.

### CASE REPORT

We present in this report a 55 years old married male with giant condyloma located at the involving penis, scrotum, perineum, and inguinal region. The initial small mass developed as a giant cauliflower like tumor in 22 years since the patient had not received any treatment. He had also two satellite lesions on the anterior face of both thigh regions.

Clinically the appearance of the lesion was a large, cauliflower-like, yellow and white papillomatous tumor with irregular surface (Figure 1). The clinical presentation of this particular case was as an invasive, fungating, itching, malodorous, "heaped up," warty lesion. The lesion was complicated by a few deep fissures discharging blood and pus.



**Figure 1.** Cauliflower-like verrucous giant tumor is extending to the pubic area from penoscrotal area.

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The results of serological tests for human immunodeficiency virus (HIV) and syphilis of the patient and his spouse were negative. Cervical smear controls of his wife revealed usual cytopathological features.

An extensive surgical excision was performed. All involved skin was excised by electrocautery with macroscopically clear margins (Figure 2). The entire wound was repaired with the split thickness graft taken from the anterior thigh face. The smaller satellite on thigh was also similarly excised. The result of histopathological examination was giant condyloma acuminatum with medium-grade dysplasia.



**Figure 2.** Aspect after the wide excision of giant tumor.

He was discharged from the hospital without any complication on the sixth postoperative day. No adjuvant treatment was given. He was healthy without any evidence of tumor four years after surgery operation (Figure 3). In the personal interview, patient expressed his satisfaction about sexual intercourse after the treatment.



**Figure 3.** Twelve months post-resection the split thickness graft of scrotum, penis and pubic is shown.

## DISCUSSION

The predisposing factors for the giant condyloma acuminatum are as follows: chronic genital infections, immunosuppression (HIV or chemotherapy), pregnancy,

diabetes, poor socioeconomic status, lack of hygiene, chronic alcoholism and smoking (7). The same factors are also the risk factors in malignant transformation of GCA. Our patient did only have alcoholism and smoking from these risk factors.

Human papilloma virus (HPV), most commonly types 6 and 11, play an important role in the etiology of GCA. HPV type 6 and type 11 were found in 66% and 33% of the cases of GCA, respectively (7,8). In our patient we could not perform human papilloma virus (HPV) deoxyribonucleic acid (DNA) analysis.

In a situation as lymph node or tumor basis enlargement or bleeding and ulceration, the clinician should suspect about malignancy transformation. Lymph node dissection is indicated only if malignant transformation is suspected (4). In our patient, he sometimes had bleeding complaints but no malignancy was diagnosed in histological analysis.

Although, intra-lesion/topical chemotherapy, radio chemotherapy, photodynamic therapy and carbon dioxide laser therapy have been used before, we think that the mainstay of therapy, as we performed in our patient, is the total wide excision (2,3,5).

The application of topical podophyllin is helpful for ordinary condyloma acuminata. However, it does not effect in GCA (5,9). Likewise, the application of topical 5-fluorouracil has a poor outcome in GCA (10). Radiotherapy may be indicated when excision could not performed or in the case of recurrence or incomplete excision as a complement surgery (2).

Although recurrence rates of the surgical excision has been reported about 50%, it is still accepted the primary treatment of GCA (6). However, in the literature there are a few case reports as large as our case that a complete surgical excision were done and no recurrence were seen in a long follow-up period. We consider the reason of this such as incomplete excision, because generally the general surgeons or urologist performs these operations and they focused to closure of the defect (5,6). Therefore, excision must be wide and preferentially should be made by the Mohs technique and if there is a big defect, a consultation of plastic surgery should be requested. Recurrence after an incomplete excision is a frequent complication. No recurrence was observed in our case in a 4 years follow-up period.

Defects which occur after the excision of the GCA, were left open and allowed to heal by secondary intention or could be repaired with skin graft or flaps (2). After the repair of the penis with skin grafts, there might be complaints of erection due to the graft contraction. Our patient did not have such complaints. To prevent such complication, the graft has to be as thick as possible to be applied totally and should be supported by a massage with oil creams.

The differential diagnosis should be made with keratotic pseudoepitheliomatous balanitis, Bowen's disease (its dyskeratotic condylomatous form) and verrucous carcinoma. Distinction between verrucous carcinoma and GCA is difficult. Some authors consider these lesions to be similar (4). However, GCA rarely presents with malign histologic features such as infiltration of the basement membrane, frequent mitotic index, angioinvasion or lymphatic metastases which represent the main difference with verrucous carcinoma. However verrucous carcinoma and GCA can coexist in 30% of patients (4,6).

Giant condyloma acuminatum, which is a viral infection, bears the potential of contamination. Therefore we suggest that the surgical team should use anti-viral gloves and protective glasses to prevent

conjunctival contamination and anti-infection mask against the vapor coming out of the cautery used against bleeding.

## CONCLUSION

Giant condyloma acuminatum is a very rare sexually transmitted disease, characterized by recurrence and invasive growth after treatment, with potential malignant transformation. Excision is mandatory even in very small condilomas to prevent GCA to evolve in greater size. We suggest that wide perineal excision by controlling the histopathological margins is the best surgical choice with long term post-treatment clinical monitoring. The effect of adjuvant radio- chemotherapy is not clearly reported yet.

## REFERENCES

1. Buschke A, Lowenstein L. Uber carcinomahnliche condylomata acuminata des penis. *Klin Wochenschr* 1925; 4: 1726-28.
2. Papiu HS, Dumnici A, Olariu T, et al. Perianal giant condyloma acuminatum (Buschke-Löwenstein tumor). Case report and review of the literature. *Chirurgia (Bucur)* 2011; 106: 535-39.
3. Yaman I, Bozdag AD, Derici H, Tansug T, Reyhan E. Verrucous carcinoma arising in a giant condyloma acuminata (Buschke-Löwenstein Tumor): ten-year follow-up. *Ann Acad Med Singapore* 2011; 40: 104-5.
4. Hicheri J, Jaber K, Dhaoui MR, Youssef S, Bouziani A, Doss N. Giant condyloma (Buschke-Löwenstein tumor). A case report. *Acta Dermatovenerol Alp Panonica Adriat* 2006; 15: 181-83.
5. Renzi A, Giordano P, Renzi G, Landolfi V, Del Genio A, Weiss EG. Buschke-Löwenstein tumor successful treatment by surgical excision alone: a case report. *Surg Innov* 2006; 13: 69-72.
6. 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: 56-59.
7. Türkdogan P, Bastürk O, Demir MA, Zeytinoglu A, Seyhan A. Giant condyloma acuminatum – two cases with microinvasive foci in one. *J Aegean Pathology* 2004; 1: 62-65.
8. Gross G, Pfister H. Role of human papillomavirus in penile cancer, penile intraepithelial squamous cell neoplasias and in genital warts. *Med Microbiol Immunol* 2004; 193: 35-44.
9. Bogomoletz WV, Potet F, Molas G. Condylomata acuminata, giant condyloma acuminatum (Buschke-Loewenstein tumour) and verrucous squamous carcinoma of the perianal and anorectal region: a continuous precancerous spectrum? *Histopathology* 1985; 9: 1155-69.
10. Chu QD, Vezeridis MP, Libbey NP, Wanebo HJ. Giant condyloma acuminatum (Buschke-Löwenstein tumor) of the anorectal and perianal regions. Analysis of 42 cases. *Dis Colon Rectum* 1994; 37: 950-57.