



## CASE REPORT

# Giant condyloma acuminatum in a female renal transplant recipient with rapid development: a case report

Renal transplantlı bir hastada hızlı gelişen dev kondiloma akuminatum: olgu sunumu

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### Abstract

Giant condyloma acuminatum (GCA) usually occurs on a set of human papillomavirus (HPV) subtype 6 or 11 infections and is characterized by cauliflower-like aggressive growing mass over the anogenital region. Lesions are more often observed in immunocompromised patients since host immunity is one of the main risk factors of the disease. We report a case of a GCA in a sexually inactive renal transplant recipient. A 25-year-old patient who had renal transplantation four years prior and has been receiving immunosuppression therapy since presented with the rapid growth of a vulvar mass noticed. A wide surgical excision was performed and the patient had no recurrence at her follow-ups. Surgical excision is the definitive treatment in immunocompromised patients with the rapid growth of vulvar condylomas.

**Keywords:** Condylomata acuminata, Human papillomavirus (HPV), immunosuppression

### Öz

Dev kondiloma akuminatum genellikle human papillomavirus (HPV) subtip 6 veya 11 enfeksiyonları ile görülmekte olup, anogenital bölgede karnabahar benzeri agresif büyüyen kitle ile karakterizedir. Kişinin bağışıklığı hastalığın ana risk faktörlerinden biri olduğundan, lezyonlar bağışıklığı baskılanmış hastalarda daha sık görülür. Bu yazıda, cinsel olarak inaktif bir renal transplant alıcısında görülen dev bir vulvar kondiloma akuminatum olgusu sunulmuştur. Dört yıl önce renal transplantasyon geçiren ve o zamandan beri immünosupresyon tedavisi alan 25 yaşındaki hasta, vulvar bölgede hızla büyüdüğünü fark ettiği bir kitle nedeni ile başvurmuştur. Kondiloma akuminatum lehine değerlendirilen ve geniş cerrahi eksizyon yapılan hastanın takiplerinde nüks görülmemiştir. Cerrahi eksizyon, hızlı büyüyen vulvar kondilomlu immün sistemi baskılanmış hastalarda kesin tedavi yöntemi olarak görülmektedir.

**Anahtar kelimeler:** Kondiloma akuminatum, Human papillomavirus (HPV), immünosupresyon

## INTRODUCTION

Giant condyloma acuminatum (GCA) is a relatively uncommon benign growth that affects the genital region, primarily in women. GCA, also known as Buschke-Loewenstein tumor, was initially described by Abraham Burschke and Loewenstein Ludwig in 1925. It is characterized by large, cauliflower-like growths that can cause discomfort and psychological distress that arises from human papillomavirus (HPV) subtypes 6 and 11 %90 of the time. The incidence is about 0.1% in the general population, and male to female ratio is found to be 2.7:1<sup>1</sup>.

HPV represents the most common sexually-transmitted disease (STD) and is highly contagious with a risk of concomitance with other STDs. Smoking, multiple sex partners, a history of STDs, and an early onset of sexual activity are considered to be the main risk factors for HPV infection. Patients usually complain of developing progressive mass, discharge, itching, bleeding, and pain<sup>2</sup>. In addition to HPV, other factors such as immunosuppression, pregnancy, and genital trauma, have also been associated with an increased risk of developing giant vulvar condyloma acuminatum. Patient immunity plays a significant role in the growth of HPV lesions

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resulting in giant condyloma acuminatum. The mass may develop rapidly in patients with immunosuppression due to the human immunodeficiency virus (HIV) or solid organ transplantation<sup>3,4</sup>.

While these growths are not cancerous, they can cause significant cosmetic and functional problems and interfere with sexual and personal relationships. Surgical excision is considered the most effective treatment of choice. Research has shown that surgical removal alone can lead to a disease-free state in up to 46% of cases<sup>5</sup>. Lilungulu et al. reported a case of a 33-year-old HIV-infected woman with giant vulvar condyloma acuminatum on her vulva that was treated with surgical excision successfully with no sign of recurrence on her follow-ups<sup>6</sup>. The growth is more rapid in immunosuppressed individuals; therefore, early diagnosis and appropriate treatment are crucial. Tripoli et al. conducted a study on the treatment options for giant condyloma and showed that radical surgical excision appears to be the most effective treatment option with a lower risk of recurrence, a better healing process, and a better improvement in patients' quality of life<sup>7</sup>. Other treatment options include podophyllin, radiotherapy, immunotherapy, laser ablation, and electrocoagulation. Here we present a giant vulvar condyloma case with rapid development in an immunosuppressed patient with chronic renal insufficiency.

## CASE

A 25-year-old woman was admitted to the gynecology clinic with the complaint of a vulvar mass associated with pain and bleeding. She first noticed the lesion 40 days prior, and it rapidly grew into a giant tumoral-like view. The patient was a non-smoker and had no sexual activity. Previously, the patient had undergone a successful treatment of multiple condylomas by cauterization at a local hospital, with no complaints following the procedure.

The patient had a history of renal transplantation four years prior and had nephrology follow-ups due to chronic renal insufficiency. Due to her medical condition, she had been receiving antihypertension treatment and immunosuppression therapy, including tacrolimus and oral steroids. Physical examination revealed a 9x5x2 cm giant cauliflower-like mass covering the vulva from the clitoral area up to the anal verge. The serologic screening for hepatitis B (Hbs-ag), hepatitis C (anti-HCV), human

immunodeficiency virus (anti-HIV), and syphilis (VDRL) was negative. (Figure. 1)



**Figure 1. The appearance of the lesions extending from clitoris to the anal area.**

Due to the aggressive nature of the mass, a vulvar biopsy was obtained under local anesthesia, and histopathology revealed no malignant transformation with features consistent with condyloma acuminatum. The general surgery department consulted the patient in terms of the existence of anorectal condyloma, and rectosigmoidoscopy was performed later on. Rectosigmoidoscopy had shown no signs of anorectal condyloma. Due to the extensive nature of the lesions, surgical excision was planned. Informed consent was obtained from the patient and a wide surgical excision was performed under general anesthesia, preserving the labial anatomy, and sutured primarily with no 2/0 polyglactin. The histopathology report revealed condyloma acuminatum with no evidence of malignancy. The patient was discharged with no complications and had no complaints of recurrence at the 6-month follow-up.

## DISCUSSION

Giant condyloma acuminatum is a sexually-transmitted disease that usually occurs onset of HPV subtype 6 or 11 infections. Benign features with a low risk of malignant transformation and high recurrence rates are usual in GCA. The lesions mainly occur in the vulvar area in women, but all genital regions may be affected. The mean time between the onset of infection and the appearance of lesions is 5 to 6 months. The lesions are typically exophytic with a risk of excessive local growth<sup>5</sup>.

Lesions are usually asymptomatic, although patients may complain of bleeding, itching, pain, and secondary infections. Rapid and excessive development of the lesions may cause psychosexual distress in patients<sup>6,7</sup>. Local invasion and recurrency are the main causes of morbidity. Risk factors for HPV infection include smoking, multiple sexual partners, history of STDs, early onset of sexual activity, and host immunity. The immune system plays a significant role and effectively wards off the majority of HPV infections. On the other hand, immune insufficiency causes rapid mass growth, and condylomas have an increased risk of recurrence and malignant transformation in immunocompromised individuals<sup>8</sup>.

Rachman et al. reported a case of a 42-year-old woman with systemic lupus erythematosus (SLE) that had been treated with steroids and immunosuppressive drugs, presenting with a giant vulvar condyloma that was treated with surgical excision<sup>9</sup>. The patient first noticed lesions six months after the immunosuppressive therapy had begun, and HPV subtypes 6 and 11 were identified. Schneider et al. reported that among 132 female renal transplant recipients, 11 of them developed cervical condylomas. Six of the 11 patients developed cervical neoplasia. The increased incidence of condylomas in immunocompromised patients has shown that even if it is frequent, condylomas may present with malignant transformation<sup>10</sup>.

Massad et al. reported a cohort study of 2791 HIV-infected and 953 uninfected women<sup>11</sup>. The incidence of condyloma acuminatum was %33 in HIV-seropositive women and %9 in HIV-seronegative women. Kavanaugh et al. conducted a cross-sectional study involving 1182 Kenyan female sex workers<sup>12</sup>. 613 of them were HIV-seropositive, and 569 were HIV-seronegative. The incidence of condyloma acuminatum was eight times greater in HIV-seropositive women (%3.9 in HIV-seropositive, %0.5 in HIV-seronegative). Tan et al. reported a case of a woman admitted with a giant vulvar condyloma acuminatum<sup>13</sup>. HPV type 6 was positive, and she was treated with a simple vulvectomy. Before the surgery, she was diagnosed with SLE, and started on immunosuppressive therapy. The lesions reoccurred three months after the immunosuppressive treatment and had a radical excision with adjuvant interferon therapy.

Atkinson et al. reported 2 cases of giant condylomas in immunocompromised women<sup>14</sup>. One of them was

a 29-year-old HIV-seropositive woman admitted to the clinic in a septic and lethargic condition. After physical examination, they revealed a giant condyloma acuminatum growing from the labia majora distorting the labial and clitoral anatomy, and treated with wide surgical excision. The second case was a 24-year-old HIV-seropositive woman presenting with pain, fever, and a giant vulvar mass. The patient had a giant condyloma acuminatum growing from the vulva and was treated with wide surgical excision. No significant recurrence was noted on the 6-month follow-up in both cases.

Zekan et al. reported a case of a woman with giant vulvar condyloma who was resistant to medical therapy and had five surgical procedures before<sup>15</sup>. They revealed an underlying superficial vulvar carcinoma. Immunosuppression plays a significant role in the appearance of the disease as it was in our case. It is important for individuals with immunosuppression to be aware of their increased risk of developing GCA and to seek prompt medical attention if they notice any growths or symptoms on their genitalia. Malignant transformation should always be kept in mind due to the aggressive local growth.

Giant vulvar condyloma acuminatum is a benign but often uncomfortable condition that affects the genital region. Malignant transformation should be considered in vulvar condylomas with aggressive rapid growth. Although there are various treatment options, surgical removal remains as the most effective method for managing the condition. However, it is essential to note that recurrence rates are high, and patients should be aware of the need for follow-up care. In addition, for those unable to tolerate surgical intervention or for whom surgery is not a viable option, other treatments such as topical medications, cryotherapy, or laser therapy may be considered. Giant vulvar condylomas are seen more often in immunocompromised patients; therefore, host immunity should be regarded as one of the main risk factors of the disease. Ultimately, prompt and appropriate treatment can help to alleviate the symptoms and improve the quality of life for those affected by giant vulvar condyloma acuminatum.

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