

# Cuniculatum carcinoma: HPV 16 positive lesion with an abdominal graft surgical reconstruction.

*Carcinoma cuniculatum: lesão positiva para HPV 16 com reconstrução cirúrgica com enxerto abdominal*

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## ABSTRACT

The cuniculatum carcinoma is a rare, slow-growth, local aggressive subtype of the squamous cell carcinoma, presented as a verrucous lesion with a low metastasis capacity. Its histopathology shows keratin-filled crypts, and its etiology is linked with HPV, especially 11 and 16 subtypes. The treatment of choice is surgical excision, followed by regular monitoring due to the high risk of local recurrence. We report a case of a woman with Cuniculatum carcinoma treated with surgery with perioperative frozen section procedure, graft, and good evolution.

Keywords: Carcinoma; Carcinoma, Squamous Cell; Foot

## RESUMO

O carcinoma cuniculatum consiste em um subtipo raro do carcinoma espinocelular, que se apresenta como uma lesão verrucosa, de crescimento lento, agressividade local e baixa capacidade de produzir metástases. Sua histopatologia revela criptas preenchidas por queratina, e sua etiologia tem ligação com o HPV, principalmente os subtipos 11 e 16. O tratamento de escolha é a excisão cirúrgica, seguida de acompanhamento regular pelo elevado risco de recidiva local. Relata-se caso de paciente feminina, portadora de carcinoma cuniculatum, tratada pela cirurgia com congelamento perioperatório, realização de enxerto e boa evolução.

**Palavras-chave:** Carcinoma; Carcinoma de Células Escamosas; Pé

## INTRODUCTION

Squamous cell carcinoma is the second most common type of skin cancer, behind only basal cell carcinoma.<sup>1</sup> Carcinoma cuniculatum (CC) is a verrucous carcinoma (VC), a rare and indolent form of squamous cell carcinoma (SCC), well differentiated. Slow growth, local aggressiveness, and low capacity to cause metastasis characterize it. It penetrates the deep tissues, forming crypts filled with keratin.<sup>2,3</sup>

It was first described in 1954 by Aird *et al.*<sup>1,5</sup> It is more common in men than in women (5:1). Its pathogenesis has not been completely elucidated, but the association with human papillomavirus (HPV), especially subtypes 11 and 16, has been described.<sup>5,6</sup>

The treatment of choice is surgical excision with margin control, and the patient must be regularly monitored for the risk of recurrences, even when the surgical margins are free.<sup>6</sup>

## Case report

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## CASE REPORT

A 64-year-old woman, working as a sales clerk, sought medical care due to a lesion in the left plantar region two years ago, with a foul odor and associated local pain. The physical examination observed an exophytic lesion with a verrucous surface, 5 cm in diameter, with an infiltrated and ulcerated border (Figures 1 and 2). The image examination, X-ray of the left foot, showed a nodular image with a radiotransparent halo in soft tissues in the plantar region, without bone involvement (Figure 3).

A biopsy was performed based on the suggested hypotheses of VC, keratoacanthoma, common wart, and amelanotic melanoma. The result favored the diagnosis of VC. Excisional



**FIGURE 3:** X-ray of the left foot  
Nodular image with radiotransparent halo in soft tissues in the plantar region



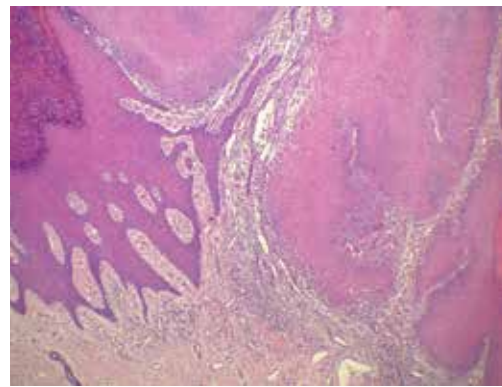
**FIGURE 1:** Exophytic lesion with verrucous surface, with infiltrated and ulcerated border in the left plantar region



**FIGURE 2:** Approximate image of the left plantar lesion

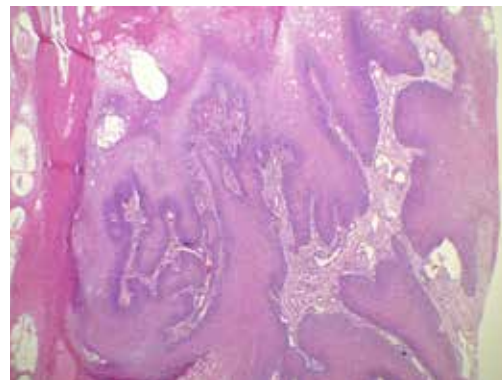
surgery was then scheduled with histopathological evaluation by perioperative frozen section. The report indicated a well-differentiated SCC, focally invasive, reaching the middle dermis, with no perineural infiltration or angiolymphatic invasion, and free surgical margins (Figures 4 and 5).

After the lesion's complete excision, skin grafting was obtained from the abdominopelvic fold (Figure 6), and a fragment was sent for HPV research, with a positive result for type 16.



**FIGURE 4:**  
Histopathological examination

Well-differentiated SCC, focally invasive, reaching the middle dermis (Hematoxylin & eosin 100x)



**FIGURE 5:**  
Histopathological examination

Squamous cell proliferation with papillomatosis and dyskeratosis, high degree of cell differentiation, without atypias (Hematoxylin & eosin 100x)



**FIGURE 6:**  
Immediate post  
surgery with  
abdominal graft

The patient evolved with good graft healing and subsequent return to daily activities. After 1.5 years of follow-up, we observed no lesion recurrence.

## DISCUSSION

CC is a VC, a rare and indolent form of SCC. It usually has characteristics of a benign, verrucous tumor, with slow growth, more expansive than invasive evolutionary pattern, good cell differentiation, and low tendency to metastasis.<sup>2,7</sup>

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Approval of the final version of the manuscript; study design and planning; preparation and writing of the manuscript; data collection, analysis, and interpretation; active participation in research orientation; intellectual participation in propaedeutic and/or therapeutic conduct of studied cases; critical literature review; critical revision of the manuscript.

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Although its most common site is in the plantar region, it can occur in several other areas, such as the flank, legs, face, oral cavity, genital, and palmar region.<sup>4</sup> It is called CC when it is located in the plantar area; Buschke-Lowenstein tumor, in the anogenital region; and Ackerman's tumor, when in the oral region.<sup>3,8</sup>

It was first described in 1954 by Aird *et al.*<sup>1,5</sup> It is more common in men than in women (5:1)<sup>5</sup> – what makes the report of this case even rarer because it is a female patient. Its pathogenesis is unknown, but the association with human papillomavirus (HPV), especially subtypes 11 and 16, has been described,<sup>6</sup> as identified in the case above.

Diagnosis is based on dermatological and histopathological examination.<sup>5,6</sup> This carcinoma should be suspected when the patient has a recurrent lesion on usual therapy. The differential diagnosis is made with common wart and keratoacanthoma.<sup>6,9</sup>

We observed scaly proliferation with papillomatosis and dyskeratosis in histopathology, a high degree of cell differentiation, without atypia. Keratin pseudocysts can be formed, sometimes with pus, generating a foul odor.<sup>3</sup>

The treatment of choice is surgical excision with margin control, and the patient must be regularly monitored for the risk of recurrences, even when free margins are obtained.<sup>6,7</sup> In the case reported, we opted for surgery with a perioperative frozen section to control the margins and perform a graft on the patient's abdomen, with Brown dressing. The patient has been in follow-up for more than two years without recurrence so far. ●