

Verrucous squamous cell carcinoma complicating chronic intertrigo

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ABSTRACT

Verrucous carcinoma (VC) is a rare form of differentiated squamous cell carcinoma. These carcinomas are usually oral, laryngeal, nasal, or genital, yet may be located anywhere on the integument. Its differential diagnosis is difficult and requires the confrontation of clinical and anatomopathologic data. It is a slowly growing and locally aggressive tumor. Its etiological factors are trauma, chemical carcinogens, human papillomavirus (HPV), and chronic inflammatory skin conditions. Herein, we report a case of verrucous carcinoma on chronic intertrigo.

Key words: Verrucous carcinoma; Chronic intertrigo; Dermoscopic

INTRODUCTION

Verrucous carcinoma is an antomo-clinical variety of squamous cell carcinoma, characterized by a low-malignancy grade, described for the first time by Ackerman in 1948. A few cases of intertoe VC have been reported in the literature; its clinical and histological aspects are often misleading [1]. We describe a new case of VC on chronic intertrigo.

CASE REPORT

A ninety-year-old male with no medical history presented with a six-year history of intertrigo of the third intertoe space treated repeatedly with antifungal treatments without improvement. The evolution was marked by the appearance of an extended, painful, hyperkeratotic tumor gradually increasing in size over a year. The patient applied a traditional treatment without improvement. The patient reported a notion of naked walking and repeated trauma.

A clinical examination revealed a tumor, approx. 3 cm in size, in the entire intertoe space overflowing on the back of the foot with an ulcerated, warty surface with an infiltrated base (Figs. 1a – 1c). A dermoscopic examination revealed a verrucous appearance in some places, a polymorphic vascularization composed of dotted and hairpin vessels surrounded by whitish structures (Fig. 2).

A deeper biopsy revealed a well-differentiated verrucous squamous cell proliferation suggesting first verrucous squamous cell carcinoma. Bacteriological and mycological examinations were negative. Based on these features, verrucous carcinoma was retained. The extension assessment, X-ray of the foot, showed no underlying bone damage. Ultrasound of the lymph nodes and chest X-ray were normal. Wide excision of the lesion with a safety margin of 5 mm, carrying the third and fourth left toes, was performed. A histopathological examination of the excision specimen found an invasive differentiated and keratinizing squamous cell carcinoma of complete excision (Figs. 3a and 3b). A search for HPV 16 was negative.

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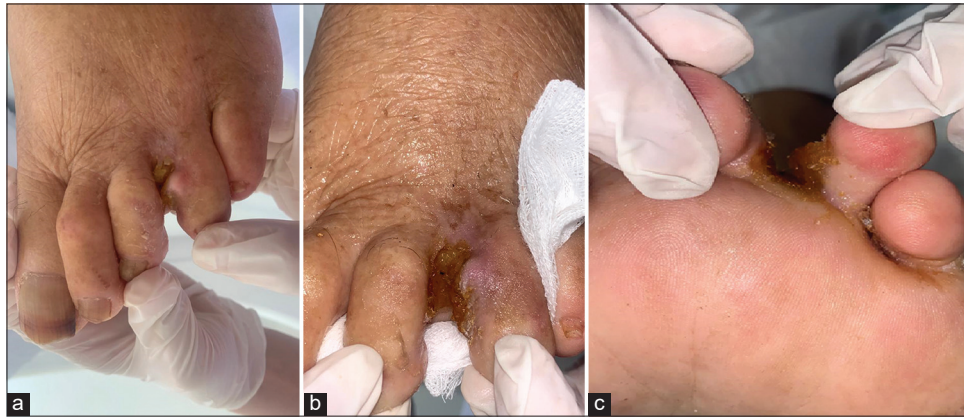


Figure 1: (a-c) Clinical pictures showing a painful verrucous tumor filling the third intertoe space.



Figure 2: Dermoscopic picture showing whitish structures (black arrow), linear vessels (purple asterisk), and a white and yellow hyperkeratotic appearance (white arrows).

DISCUSSION

Verrucous intertoe carcinoma is a rare tumor occurring most often at the level of the last two spaces between the toes on benign chronic lesions that do not respond to appropriate treatment and most often on lesions of mycotic intertrigo. Factors favoring the occurrence of VC at the intertoe level have been reported in certain publications, in which maceration was considered the main etiological factor [2,3]. The other eventualities, in particular, inverted psoriasis and callus, remain unlikely.

In most cases reported in the literature, In most cases reported in the literature, squamous cell carcinoma inter toe was confused with lesions of the intertrigo inter toe [2,3]. which in this patient was the cause of a delay in diagnosis, despite several consultations.

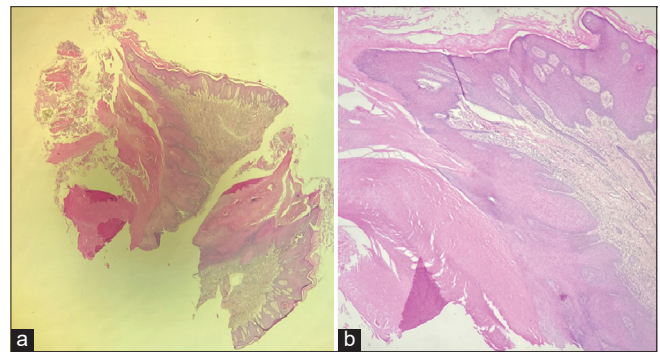


Figure 3: a and b Histological image at low magnification and at high magnification showing a papillomatous carcinomatous proliferation consisting of papillae lined with squamous cells with enlarged, hyperchromatic, and strongly nucleated nuclei; eosinophilic cytoplasm; and the absence of invasive elements.

Clinically, they present in the form of vegetative, exophytic tumors with a verrucous and ulcerated surface with nausea-bond keratin debris and an infiltrated base exceeding the visible limits of the tumor. The tumor then extends in surface and height by overflowing the dorsal side of the feet.

The main differential diagnoses are keratoacanthoma, Bowen's disease, verrucous tuberculosis, deep mycoses, atypical mycobacteriosis, common warts [4].

The dermoscopic features of verrucous carcinoma are the presence of a white background (amorphous masses of keratin, yellowish-white to light brown), a verrucous appearance, a polymorphous vascular pattern with more than one vessel type dominating (consisting of linear, irregular, hairpin-like, glomerular, and, rarely, dotted types), and ulcerations [5].

Histopathological examination is the gold standard for establishing the CV diagnosis, yet the histological characteristics may still be falsely reassuring and a

source of delay and diagnostic difficulties, partly due to the verrucous nature and keratinization of verrucous carcinoma, hence the need for large and deep biopsies [6,7]. On the other hand, the histological aspect may correspond to the following three stages:

- Stage 1: A benign appearance of squamous epithelial proliferation associating acanthosis, papillomatosis, and hyperkeratosis.
- Stage 2: A benign epithelial proliferation with a base still very well preserved, yet the deep infiltration very marked.
- Stage 3: Areas of *in situ* or invasive carcinoma with cytonuclear abnormalities and architectural disorganization, basal rupture, and invasion of the dermis by the epithelial cords.

The evolution is essentially local with a risk of bone lysis. The risk of metastasis is low [6]. The treatment of choice is surgical excision. The clinical follow-up of these patients is highly important because recurrences remain frequent even after extensive surgery.

CONCLUSION

The particularity of our observation is the occurrence of squamous cell carcinoma on chronic intertrigo lesions. This new observation reminds us of the need for regular clinical and dermoscopic monitoring of chronic cutaneous intertrigo, as well as other benign lesions which must be biopsied in the slightest doubt in order to make an early diagnosis and early therapeutic management.

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

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