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Verrucous Squamous Cell Carcinoma of the Scalp: Rare but Exists

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Abstract

Verrucous carcinoma is a rare, low-grade, well-differentiated squamous cell carcinoma most commonly seen on mucosa. It has been infrequently reported to occur on the skin, where it is a slow-growing and locally aggressive tumour. It is not uncommon for cutaneous verrucous carcinomas to be mistaken for the more frequent verruca vulgaris and treated accordingly. We report a case of a rare localization of this tumor in the scalp of a 57 year old patient.

Keywords

Verrucous Carcinoma; Squamous Cell; Scalp; Keratinocytes

Introduction

Verrucous Carcinoma (VC), first described by Ackerman¹ in 1948, is an uncommon, low-grade, well-differentiated variant of squamous cell carcinoma. It presents as a slow-growing, bulky, exophytic tumor with a broad base. The tumor can ulcerate or present with surface sinus tracts that drain foul-smelling material [1]. Typically, the tumor occurs in the fifth to sixth decades of life, with men outnumbering women by a ratio of 5.3 to 1.2, we report a case of its rarest location in a 55 year old man [2].

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Case Report

A 55 year old man presented with an asymptomatic nodular lesion on his scalp, which had been progressively enlarging over the previous 5 months. The patient's medical history was not contributory. He had not received radiotherapy in that location, and he also denied receiving any trauma to the scalp or having any other potential triggering factors. On physical examination, a verrucous nodule, well-delimited, with 2 cm in size was seen (Fig. 1). He had no similar lesions in the rest of the body and no history of familial wart or in his children. Dermoscopy showed with a warty appearance with hemorrhagic suffusion, typical of a common wart. Given the absence of a risk factor for our patient, as well as the clinical and dermoscopic aspects of the lesion, we first thought of a common wart, but given the age of the patient and the recent appearance of the lesion. But was unable to rule out a warty squamous cell carcinoma and a biopsy was taken from the lesion, who has shown an atypical epidermal hyperplasia invading the dermis; with slight cytological atypia of the keratinocytes and dyskeratosis and sinuses filled with keratin (Fig. 2,3), evoking a verrucous carcinoma of the scalp.

The tumor was excised with a 4 mm margin to the underlying galea, and there was no recurrence after a follow-up of 6 months.

Figure 1: Verrucous, well-delimited tumour on the scalp.

Figure 2: Histopathologic features of verrucous carcinoma with endophytic epidermal proliferation.

Figure 3: A papillated endophytic proliferation of atypical keratinocytes of verrucous carcinoma.

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Discussion

Verrucous Carcinoma (VC) is a subset of squamous cell carcinoma. It is characterized by slow growth and a tendency towards local recurrence without distant metastases [3]. However, the tumor may be locally invasive with deep involvement of surrounding structures [4].

The major locations for VC are the oral cavity, it typically involves the oral cavity, larynx, esophagus and skin. Cutaneous lesions typically arise in the anogenital region and the plantar surface of the foot. It is rarely seen on other areas of the skin [4,5]. The commonest extra plantar locations are the sacral and buttock regions [3]. Cutaneous VC is more common in elderly men. Although the pathogenesis remains unknown, human papilloma virus infection, trauma, ultraviolet radiation exposure, chronic inflammation or use of tobacco, betel nut or alcohol have been associated with the development of VC. VC of the scalp is a rare condition because of its verrucous appearance and its slow growth, initial misdiagnosis as a wart is common in our patient [3,4,6]. VC normally occurs as solitary, rounded, exophytic, hyperkeratotic, well defined plaque, or nodule, with cauliflower-like growth [3,4].

The confirmation diagnosis is obviously histological, under the microscope, the lesion shows minimal cytologic atypia. Topped by an undulating keratinized mass, the deep margin of the tumor advances as a broad bulbous projection, compressing the underlying connective tissue in a bulldozing manner. Typically there also are keratin-filled sinuses and intra-epidermal micro abscesses [7].

Surgical excision is the treatment of choice for VC. Mohs micrographic surgery may also be implemented to provide complete tumor extirpation with margin control and maximal preservation of normal tissue structures and function [8]. Other treatment modalities include immunotherapy, laser surgery, cryosurgery, electrodesiccations and curettage, retinoid therapy, chemotherapy (typically intralesional) and radiotherapy. Radiotherapy has also been effectively used despite reports of anaplastic transformation [3,4,8].

Conclusion

VC is a low-grade subtype of squamous cell carcinoma and its location at the scalp is a rare entity with few case reports in the literature.

The unusual features of this case were in addition to the localization of the tumor, its recent appearance in a man with no obvious risk factor for the development of a VC, as well as its mimicking appearance typically common wart, with a small size at ulceration or bleeding.

The take-home message: always think of a VC in front of a wart, even small and asymptomatic in a man of the 5th decade and eliminate it first.

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