



## Pigmented columns as a dermoscopy feature in a seborrheic keratosis associated with a squamous cell carcinoma

*Colunas pigmentadas como um achado dermatoscópico de queratose seborreica associada a carcinoma espinocelular*

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### ABSTRACT

**Introduction:** Seborrheic keratosis (SK) has the typical pigmented dermoscopy features such as fissures and ridges, fat fingers, and cerebriform patterns. Here we describe a case where pigmented columns (PC) were visualized on SK's dermoscopy associated with a squamous cell carcinoma (SCC). Case presentation: We report a case of a lesion whose dermoscopy showed PC. Histopathological report showed well-differentiated SCC and associated SK. Discussion: The PC was visualized in an area of dendritic melanocytes in the epidermis, correlating with the pigmented SK component of the lesion. To our knowledge, this is the first time PC is described in SK's dermoscopy.

**Keywords:** Carcinoma squamous cell; Dermoscopy; Skin neoplasms.

### RESUMO

**Introdução:** As queratoses seborreicas (QS) têm achados dermatoscópicos pigmentados clássicos, como: fissuras e sulcos, "fat-fingers" e padrão cerebriforme. Relatamos um caso onde colunas pigmentadas (CP) foram visualizadas na dermatoscopia de uma QS associada a um carcinoma epidermoide (CEC). Relato do caso: Relatamos o caso de uma lesão onde a dermatoscopia demonstrou CP. O anatomopatológico foi compatível com CEC associado a QS. Discussão: As CP foram visualizadas em área de melanócitos dendríticos na epiderme, correlacionando-se ao componente de QS da lesão. Ao que se sabe, esta é a primeira vez que CP são descritas como achado dermatoscópico de QS.

**Palavras-chave:** Carcinoma de células escamosas; Dermoscopia; Neoplasias cutâneas

## Case Report

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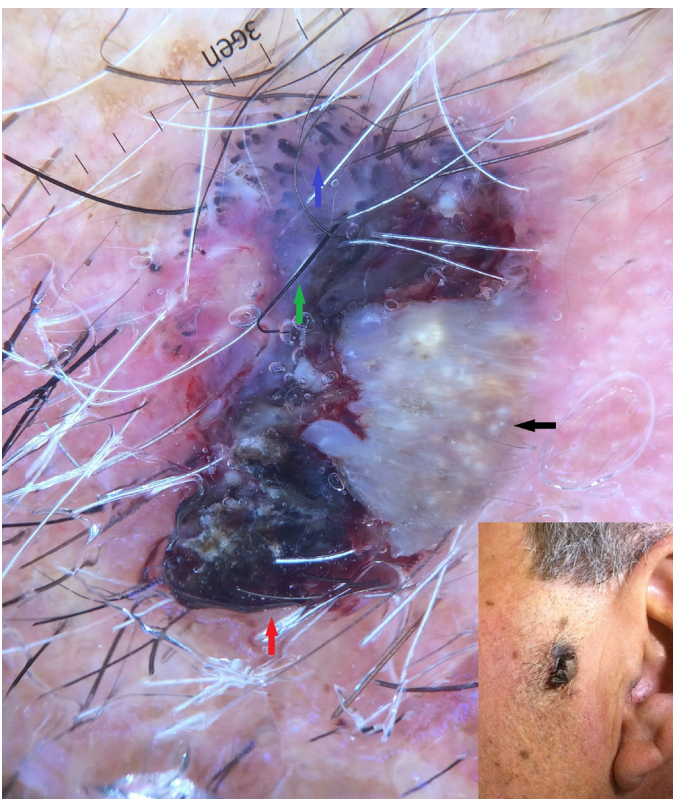


**INTRODUCTION**

Seborrheic keratosis (SK) has the typical pigmented dermoscopy features such as fissures and ridges, fat fingers, and cerebriform patterns. Here we describe a case where pigmented columns (PC), not characterized as any of the pigmented structures mentioned before, were visualized at dermoscopy. The histopathological report revealed a squamous cell carcinoma (SCC) with SK associated.

**CASE PRESENTATION**

A 66-year-old man presented to the clinic reporting recent growth and bleeding of a lesion he has had for a few years. The patient had no previous history of skin cancer. Physical examination revealed a 1cm-brownish plaque with hemorrhagic crust on the preauricular area. Dermoscopy showed milium cyst-like structures in the posterior portion of the lesion, a hemorrhagic crust inferiorly and, superiorly, a blue-white veil followed by PC at the top of the lesion. (Figure 1).



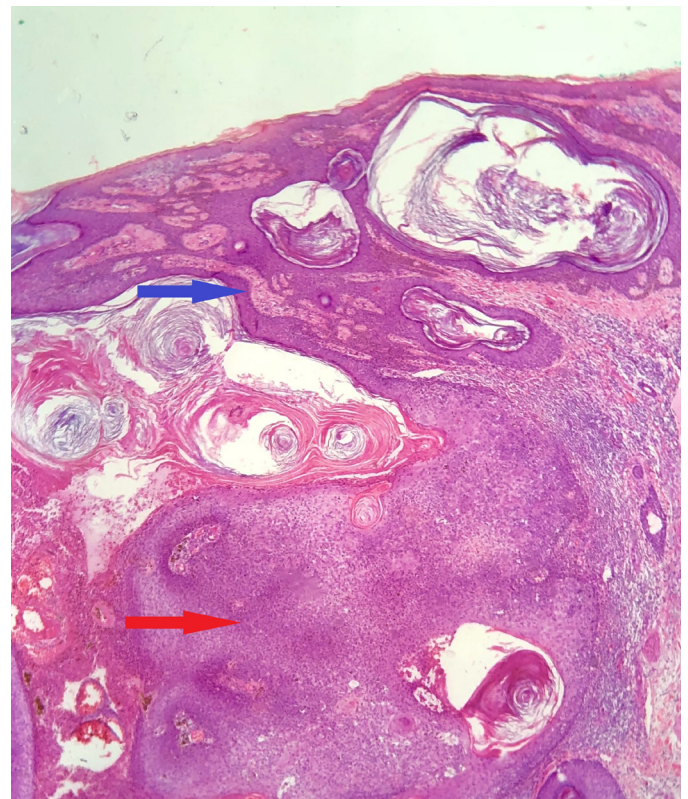
**FIGURE 1:** Polarized light dermoscopy image. Dermoscopy shows: milium cyst-like structures (black arrow); hemorrhagic crust (red arrow); blue-gray veil (green arrow); and pigmented columns (blue arrow). Insert: clinical image.

We performed the excisional biopsy. The histopathological report showed well-differentiated SCC with clear surgical margins and associated SK (Figure 2). The patient has been followed for three years with no signs of lesion recurrence to date.

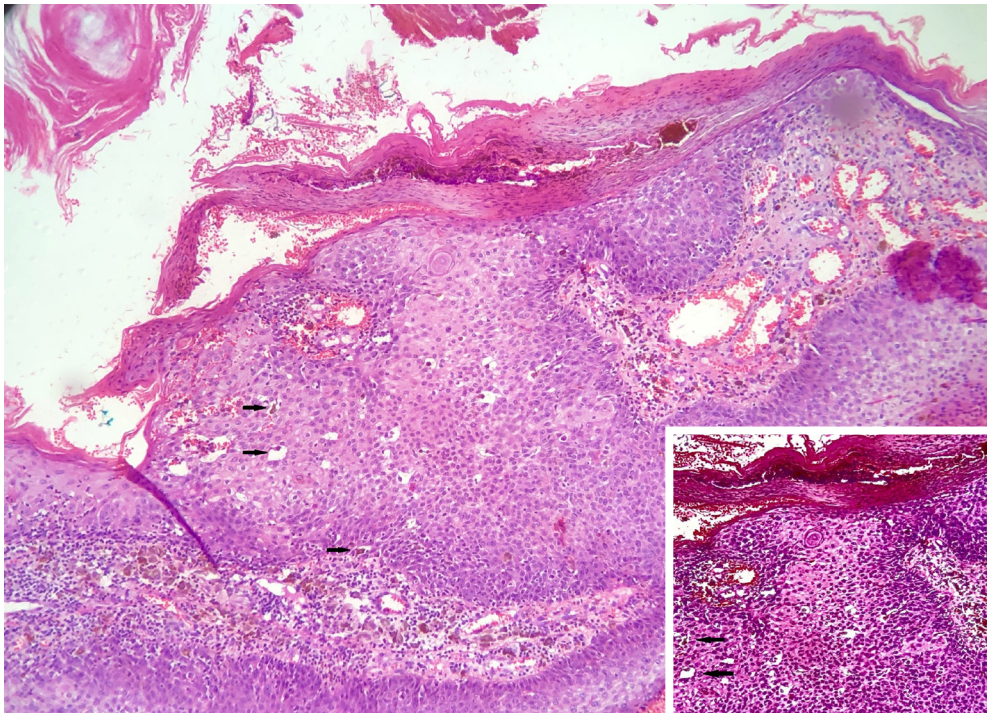
**DISCUSSION**

Regarding SCC dermoscopy structures, one can find polymorphous vessels. If ulceration and blood crusts are present, these appear as reddish to brownish or black blotches on the surface of the tumor. Pigmented invasive SCC is rare, and, on dermoscopy, it is characterized by a diffuse, homogeneous blue pigmentation with irregularly distributed blue-gray granular structures.<sup>1</sup>

In this case, the PC at the lesion’s periphery intrigued us. Fissures and ridges, fat fingers, and cerebriform patterns are the well-known pigmented dermoscopy structures in SK. In histopathology, they correlate to wedge-shaped clefts of the sur-



**FIGURE 2:** Histopathology shows, at the top of the image, proliferation of basaloid cells with pigmented keratinocytes in the basal layer and horn pseudocysts formation, corresponding to the SK component of the lesion (blue arrow). At the bottom of the image, proliferation of atypical keratinocytes with the presence of mitotic figures, corresponding to the SCC component of the lesion (red arrow). Haematoxylin Eosin (HE) magnification 4x.



**FIGURE 3:** Histopathology shows dendritic melanocytes (arrows) amidst epidermal keratinocyte proliferation and melanophages in the dermal papilla. HE magnification 10x and 40x.

face of the epidermis often filled with keratin. In our case, we visualized these PC in an area of dendritic melanocytes seen amidst basaloid keratinocytes in the acanthotic epidermis, correlating with the pigmented SK component of the lesion (Figure 3).

Besides this exciting finding in the SK dermoscopy, our case consisted of an SK with malignant transformation into an invasive SCC. It's a rare event, considering that the transformation into an in situ SCC is much more common than into an


invasive SCC. According to Vun et al., in a retrospective study of 813 histological specimens reported as seborrheic keratosis, 43 were associated with non-melanoma skin cancer. Among these, 36 were associated with squamous cell carcinoma in situ, and only two were associated with invasive squamous cell carcinomas.<sup>2</sup>


To our knowledge, this is the first time these dermoscopy structures (PC) are described in an SK. Further studies are necessary to determine its prevalence and to analyze its exact histopathology correlation. ●


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