Comedo-like openings in melanoma*

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Abstract: We describe a case of melanoma with the presence of comedo-like openings at dermoscopy. These structures, typical of seborrheic keratosis, represent an uncommon finding in melanoma. We emphasize the importance of searching for specific dermoscopic criteria for melanocytic lesions during the examination of a pigmented lesion, despite possible observations of characteristic structures of non-melanocytic lesions, in order to increase the accuracy in the diagnosis of melanoma.
Keywords: Dermoscopy; Keratosis, seborrheic; Melanoma

INTRODUCTION

Dermoscopy has become the initial complementary exam used to evaluate pigmented cutaneous lesions in daily clinical practice. Dermoscopic examination increases the diagnostic accuracy of melanoma and helps reduce its mortality.[1] Through dermoscopy, melanomas exhibit asymmetry of colors and structures, with a disorganized pigmentary architecture. Atypical pigmentary network, peripheral striae, spots and atypical globules, inverted pigmentary network, blue-whitish veil and peripheral homogeneous pigmentation are some of the dermoscopic findings, likely to be observed in melanoma.[2,3] Comedo-like openings and milia-like cysts are structures typically seen in seborrheic keratosis, one of the most common pigmented lesions that can clinically mimic melanoma.[1] We describe a case of cutaneous melanoma, in which, besides dermoscopic structures suggestive of this tumor, several comedo-like openings, rarely seen in melanoma, were visualized.[4]

CASE REPORT

A seventy-two year-old white female complained of a progressively growing lesion in the left leg, with two years of evolution. She did not reported personal or familial history of cutaneous malignancy. Physical examination revealed a brownish papular lesion in the posteromedial surface of the left leg measuring approximately 11 mm (Figure 1). Diagnostic hypotheses, raised solely by clinical examination, were of seborrheic keratosis and melanoma. Through dermoscopic examination, with polarized light and fluid in the interface, it was possible to observe asymmetric structures, atypical pigmentary network, irregular homogeneous pigmentation, globules and dots irregularly distributed through the lesion besides several comedo-like openings (Figures 2 and 3). Despite the presence of the latter, the lesion showed specific criteria for melanocytic lesion, so that a clinical and dermoscopic diagnosis of melanoma was formulated. The lesion was then completely excised. Histopathological examination confirmed the diagnosis of superficial spreading melanoma with a thickness of 0.44 mm and revealed the presence of comedo-like openings next to atypical melanocytes proliferation, in nests and isolated in the epidermis (Figure 4). The patient had no evidence of metastatic disease and underwent periodic clinical follow-ups after the extending of surgical margins according to Breslow thickness.

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Figure 1: Clinical aspects of the pigmented lesion on the left leg

Figure 2: Dermoscopy with polarized light and interface fluid (original magnification 10x). Asymmetry of structures, atypical pigmentary network, atypical globules and irregular dots, areas with irregular homogeneous pigmentation and comedo-like openings are seen

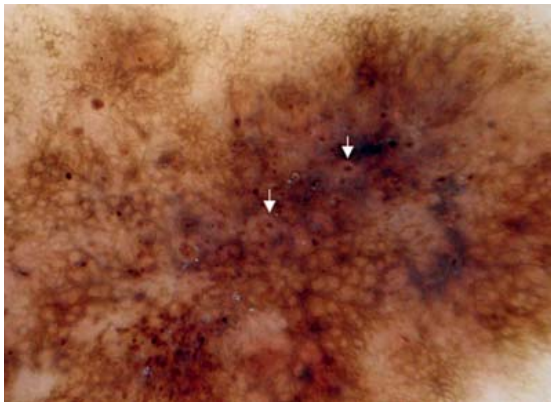

Figure 3: Dermoscopy with polarized light and interface fluid (original magnification 10x). Details of comedo-like openings (arrows)

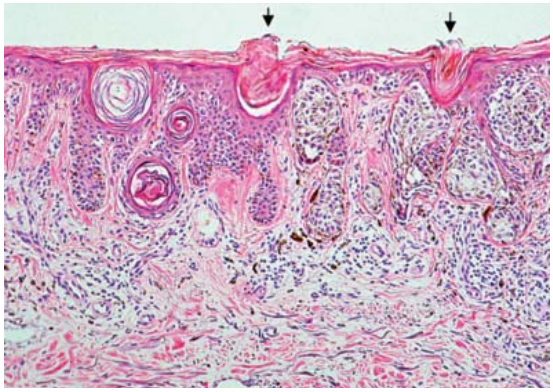

Figure 4: Photomicrography of the histological exam (hemotoxylin and eosin, original magnification 10x). Note epidermis with comedo-like openings (arrows) next to atypical melanocytes proliferation (hemotoxylin and eosin, original magnification 200x)

DISCUSSION

Clinical differentiation between seborrheic keratosis and melanoma may pose a diagnostic challenge. Although there are well-established dermoscopic criteria to differentiate melanocytic from non-melanocytic skin lesions, such criteria could cause misdiagnosis when concurrently present in the same lesion.[5,6]

Comedo-like openings, seen in histopathological examination, correspond to epidermal invaginations filled with keratin. These structures are commonly found in seborrheic keratosis, but their presence is not exclusive to this type of lesion. Eventually, melanocytic lesions can also present comedo-like openings. Furthermore, structures similar to melanocytic lesion's pigmentary network can also be observed occasionally in seborrheic keratoses.[7]

Because they are superficial structures localized in the epidermis, comedo-like openings and milia-like cysts are best visualized by the dermatoscope with non-polarized light, as opposed to the polarized light dermatoscope that has the advantage of better observing dermal structures such as blood vessels and collagen.[8] Differences in the optical properties of such equipment appear to be responsible for such variations in dermoscopic findings.[9] Both polarized as well as non-polarized light dermoscopy should, when possible, be performed together in the evaluation of a pigmented lesion, especially if there are doubts about the diagnosis.[8]

Some clinicopathological variants of melanoma can mimic benign lesions. Verrucous nevoid melanoma or seborrheic keratosis-like melanoma is characterized by presenting hyperkeratosis, epidermal hyperplasia and pseudofollicular plugs, resembling a benign lesion. In most of these cases, dermoscopy has been shown to be a useful tool for distinguishing between melanoma and seborrheic keratosis,

especially when specific criteria for melanocytic lesions are present.[6] Melanoma mimicking seborrheic keratosis, and melanoma associated with seborrheic keratosis, as collision tumors, have been described in the literature.[4,5]

During the dermoscopic examination of a lesion that is clinically suspected to be seborrheic keratosis, one must carefully seek for the presence of structures that may indicate the possibility of a melanocytic lesion, despite the presence of structures typical of seborrheic keratosis, so as not to miss an important diagnosis of melanoma and the chance to contribute to extend the patient's survival. ❑

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