

# Amelanotic metastatic cutaneous melanoma\*

## Melanoma metastático amelanótico cutâneo

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DOI: <http://dx.doi.org/10.1590/abd1806-4841.20132206>

**Abstract:** Dermoscopy of melanocytic lesions has guided the decision of when or not to biopsy a lesion. The use of this tool has increased clinical examination's sensitivity and specificity in 89% and 96% respectively. However, dermoscopic evaluation of amelanotic or hypomelanotic melanomas, as well as metastases, can be difficult. There is still no standardization for the analysis of these pathologies, which relies mostly on their vascular pattern. We describe the dermoscopy of acral metastatic amelanotic melanoma.

**Keywords:** Dermoscopy; Melanoma, amelanotic; Neoplasm metastasis

**Resumo:** A dermoscopia das lesões melanocíticas tem auxiliado na decisão de biopsiar ou não uma lesão. A utilização desta ferramenta aumentou a sensibilidade e a especificidade do diagnóstico para 89% e 96%, respectivamente. No entanto, a avaliação dermoscópica de melanomas amelanóticos ou hipomelanóticos, bem como a de metástases cutâneas, pode ser difícil. Ainda falta uma padronização para a análise destas patologias, que se baseia, majoritariamente, no seu padrão vascular. Descreve-se a dermoscopia de melanoma metastático amelanótico acral.

**Palavras-chave:** Dermoscopia; Melanoma amelanótico; Metástase neoplásica

### INTRODUCTION

This is a thirty-eight-year-old female patient, with history of a hyperchromic-blackened plantar spot on the right foot since birth. Two years ago, the lesion started to grow in size and display heterogeneous color, asymmetric edges and ulceration, being then biopsied. Histopathology examination revealed melanoma, measuring 17x10 mm, with Breslow thicker than 3mm and positive surgical margins.

The patient was submitted to surgical expansion of margins with resection of a residual nodular melanoma. Margins were free at 7 mm from the neoplasm and sentinel lymph node was positive, which lead at the time to the choice of lymph node dissection, local radiotherapy and adjuvant treatment with interferon. PET / CT exam revealed no metastases in other organs.

Two months ago, a normochromic papule was identified, measuring 4mm and located in the plantar area at a distance of 5 mm from the primary tumor's resection scar (Figure 1).

At dermoscopy, performed with DermLite®, Pro model HR device (3Gen - San Juan Capistrano, CA), milky-red areas and irregular vessels arranged in corkscrew, spots and hair clip patterns throughout the lesion were detected (Figure 2). Pigmented network, dots or globules were not detected.

An excisional biopsy was performed, revealing melanoma with Breslow thickness greater than 4 mm without ulceration, mitotic index of 8/mm<sup>2</sup> and peripheral and deep surgical margins affected by the malignancy (Figure 3). The patient underwent another surgery for margin expansion and restaging of the tumor.

Received on 16.10.2012.

Approved by the Advisory Board and accepted for publication on 25.10.2012.

\* Work performed at Brasilia University Hospital - Brasilia University (HUB-UnB) - Brasilia (DF), Brazil.

Financial Support: none

Conflict of Interests: none

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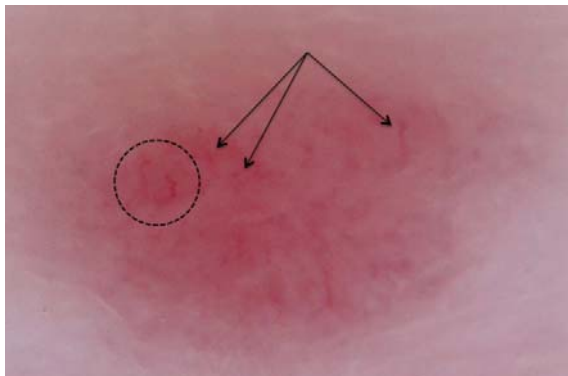
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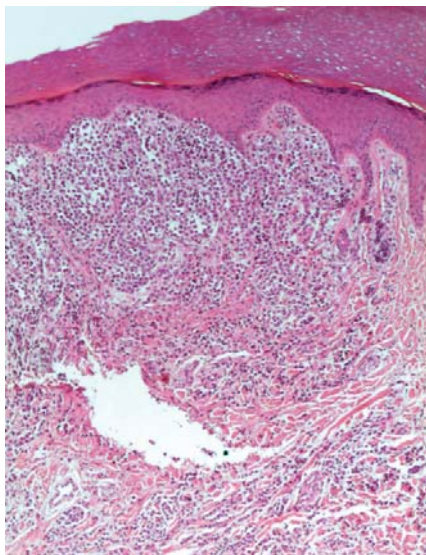
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**FIGURE 1:** Pinkish papule with 3 mm of diameter, located 5 mm from the surgical scar



**FIGURE 2:** At dermoscopy, polymorphic vessels are seen – in corkscrew (circle), in points and lines (arrows) – besides milky-red areas



**FIGURE 3:** Histopathology: atypical melanocytes showing bizarre mitosis, nuclei with varying sizes, prominent nucleoli and pigment absence

## DISCUSSION

Dermoscopy has its established use in the diagnosis of melanocytic lesions and is a promising tool in monitoring therapeutic responses.<sup>2,3,4</sup> On the other hand, lesions with complete or partial absence of pigment still represent a diagnostic challenge both in terms of clinical and dermoscopic standpoints.<sup>4</sup>

The amelanotic and hypomelanotic melanomas are characterized by complete or partial absence of pigment and account for 2-8% of all melanomas.<sup>4,5</sup> Diagnosis is a difficult task, since they can be confused with other lesions such as Bowen’s disease, actinic keratoses, sebaceous hyperplasia, basal cell carcinoma, dermal nevus, among others.<sup>1</sup>

Dermoscopic analysis of these lesions does not have a universally accepted standardization.<sup>6</sup> The lack of pigmented network, dots, globules, and whitish-blue veil hinders the diagnosis, which becomes dependent mainly on the analysis of vascular pattern.<sup>4,5,7</sup>

The format of vessels depends on the thickness of the melanoma and its layout.<sup>8</sup> Vessels that are disposed perpendicularly are seen as points, while longitudinal vessels are viewed in a linear fashion.<sup>1,8</sup> In thin melanomas, vessels in points are more common, while in melanomas with Breslow thickness greater than 1mm, the vascular disposition tends to be mixed with irregular linear vessels, hair clip, corkscrew and point patterns.<sup>1</sup> Melanoma metastases follow the same pattern of presentation, with high prevalence of corkscrew pattern vessels in thick tumors.<sup>1</sup> In the present case, because it was a thicker lesion confirmed by histopathology, we observed an heterogeneous vascular pattern and the presence of vessels in corkscrew, raising the suspicion of a metastatic lesion.

Besides the vascular pattern, milky-red areas and crystalline structures or chrysalis can be identified. The milky-red areas correspond to polygonal pinkish zones separated by white blurred structures, found in about 50% of amelanotic melanomas.<sup>1,7,8</sup> Chrysalis, are bright white structures seen on polarized dermoscopy that possibly correspond to changes in papillary dermis collagen and are also less frequently found.<sup>1</sup> In 2008, Shultz and colleagues further described lacunae or saccular structures in amelanotic melanoma metastases with a specificity of 99%.<sup>8,9</sup>

Another peculiarity of the dermoscopy of these lesions is the way it should be performed, which should preferably be with polarized dermoscopy and without any contact with the lesion. Contact between the lens and the tumor can cause compression of vessels, which hinders their visualization. If contact dermoscopy is the option, the use of ultrasound gel can attenuate the pressure on the lesion in comparison to the use of alcohol or immersion oil.<sup>1</sup>

Although controlled studies on the dermoscopy of these lesions are lacking, its use seems to emerge as an indispensable tool for the evaluation and monitoring of these patients, increasing the sensitivity and specificity of the clinical examination, which can positively affect the prognosis of the subjects under evaluation. □

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