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A pigmented flat lesion on the leg of a 72-year-old man

Virgínia Coelho de Sousa[1], André Oliveira[1]

1 Department of Dermatology, Hospital de Santo António dos Capuchos - Centro Hospitalar de Lisboa Central, Lisboa, Portugal

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Corresponding author: André Oliveira, MD, Department of Dermatology, Hospital de Santo António dos Capuchos - Centro Hospitalar de Lisboa Central, Alameda Santo António dos Capuchos, 1169-050, Lisboa, Portugal. Tel. +351912561666; Fax. +351213562208. Email: andre.oliveira@sapo.pt

The patient

A 72-year-old man presented to our clinic with a 12-month history of a new, growing, asymptomatic, pigmented flat lesion on his right leg. The physical examination revealed an irregular, dark-brown patch with 8 mm of maximum diameter (Figure 1).

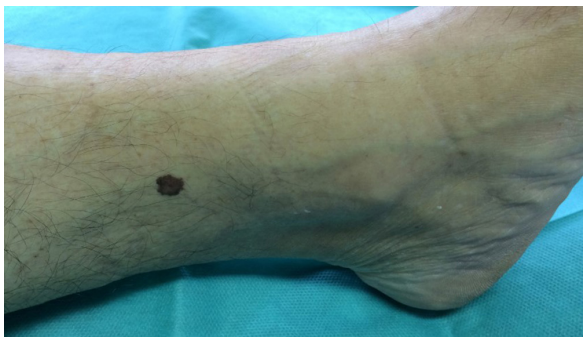

Figure 1. An irregular, dark-brown patch with 8 mm. [Copyright: ©2015 Coelho de Sousa et al.]

Dermoscopy disclosed a sharply demarcated lesion corresponding to the jelly-sign (red arrows). Additionally, multiple small and loosely arranged brown globules (blue circles) resembling the so-called dermoscopic "concentric structures," were seen (Figure 2).

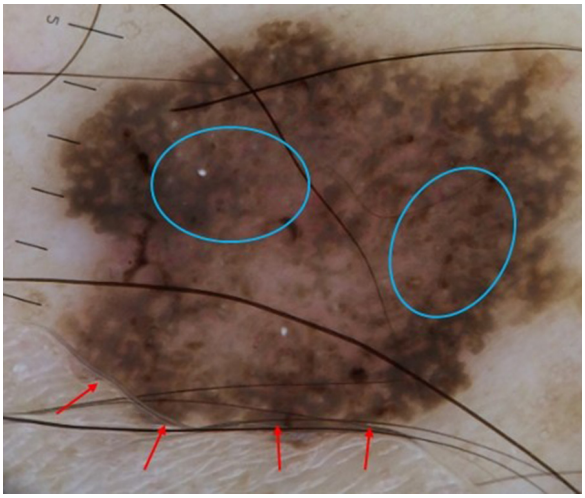

Figure 2. Multiple small and loosely arranged brown globules (blue circles) resembling the so-called dermoscopic "concentric structures." [Copyright: ©2015 Coelho de Sousa et al.]

A punch biopsy of the lesion was performed. Histopathological examination revealed multiple heavily pigmented intra-epidermal nests of basaloid cells, corresponding to the Borst-Jadassohn phenomenon (Figure 3, hematoxylin & eosin [H&E], x200).

What is your diagnosis?

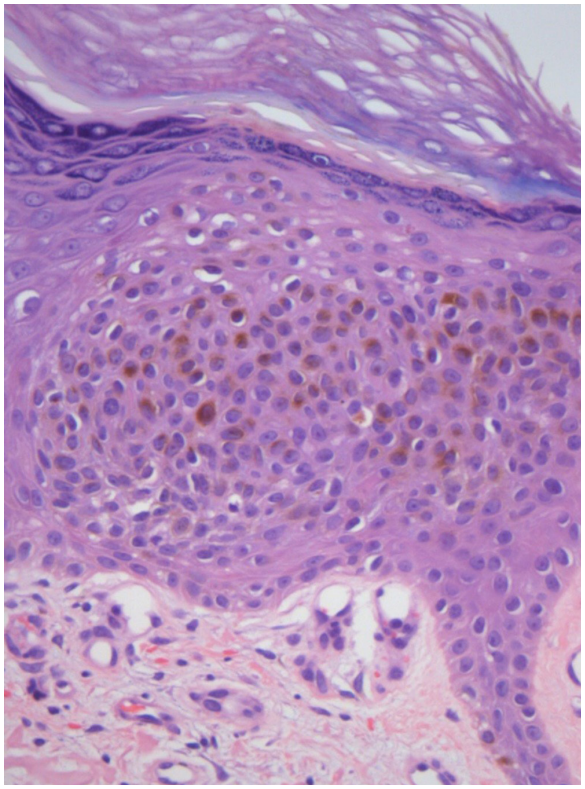

Figure 3. Histopathological examination revealed Borst-Jadassohn phenomenon (H&E, x200). [Copyright: ©2015 Coelho de Sousa et al.]

Diagnosis

Clonal seborrheic keratosis

Clinical course

As it is considered a benign non-melanocytic lesion, a conservative management was proposed. No further unnecessary therapeutic procedures were performed.

Answer and explanation

Seborrheic keratosis (SK) is one of the more common skin neoplasms seen by dermatologists. Clinical and dermoscopic diagnosis of SK is straightforward in most of the cases. However, deeply pigmented lesions can resemble melanoma. SK may be grouped into seven histological subtypes, with acanthotic, hyperkeratotic and adenoid variants being the more representative [1].

Dermoscopy is a fast, non-invasive technique that increases diagnostic accuracy for both melanocytic and non-melanocytic skin tumors, allowing for a better differentiation of clinical simulators of melanoma [2]. Described criteria for melanocytic and non-melanocytic lesions are sometimes seen together in the same lesion [3]. Common dermoscopic features of SK include fissures and ridges, comedo-like openings, milia-like cysts and sharply demarcated borders [4,5].

Clonal SK is considered a rare variant characterized by proliferation of intra-epidermal clusters of basaloid cells known as Borst-Jadassohn phenomenon. Dermoscopic features of clonal SK have previously been documented in few reports or small case series [6-10]. In our case, the patient's history pointed towards the diagnosis of melanoma. However, jelly-sign favored a SK even if milia-like cysts and other frequently observed criteria were absent. Globular structures are observed mainly in melanocytic tumors. Clonal SK, basal cell carcinoma and epidermal nevi are few of the known exceptions. In the former, globules correspond to the epidermal nests of pigmented basaloid cells seen in histopathology.

In conclusion, clonal SK represents a dermoscopic pitfall being difficult to differentiate from melanoma. Both tumors are also increasingly more prevalent in the elderly. Histopathological examination should always be performed in such confounding lesions.

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