Dermatology Practical & Conceptual

Lichenoid Keratosis Simulating Melanoma: a Case Report

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Case presentation

An 80-year-old male was referred to the Dermatology Department for a pigmented lesion on his right arm that had been present for over twenty years but had rapidly grown and become more pigmented in the last three months. Physical examination showed a 10 mm dark, bluish-brown plaque and dermoscopy revealed a multicomponent pattern with multiple colors and pseudopods (Figure 1B). Reflectance confocal microscopy was performed, and the most prominent findings were a regular epidermal architecture, remnants of cord-like pattern in the dermoepidermal junction, and abundant aggregates of plump-bright cells in the papillary dermis, corresponding to melanophages (Figure 1C). An excisional biopsy was performed, and histopathological analysis showed epidermal hyperplasia with hyperkeratosis, vacuolar-interface dermatitis, and a dense dermal infiltrate of melanophages and lymphocytes. SOX10 stain highlighted dermal melanophage-aggregates (Figure 1, D and E). Therefore, both confocal microscopy and histopathology were compatible with lichen planus-like keratosis (LPLK).

Teaching point

The diagnosis of seborrheic keratosis is typically straightforward. However, in cases of regression, also known as LPLK, these lesions may mimic melanoma or other malignancies [1]. Dermoscopic findings of lichenoid keratosis change as regression progresses, and several patterns have been described, such as light-brown or gray pseudo-networks, annular-granular structures and blue-gray globules [2]. We present a case in which some of those features were present, but were accompanied by other structures than have not been described yet in LPLK and that can be very misleading, such as pseudopods and blue-gray veil. Confocal microscopy was particularly useful in this challenging case, and diagnosis was confirmed by histopathology.

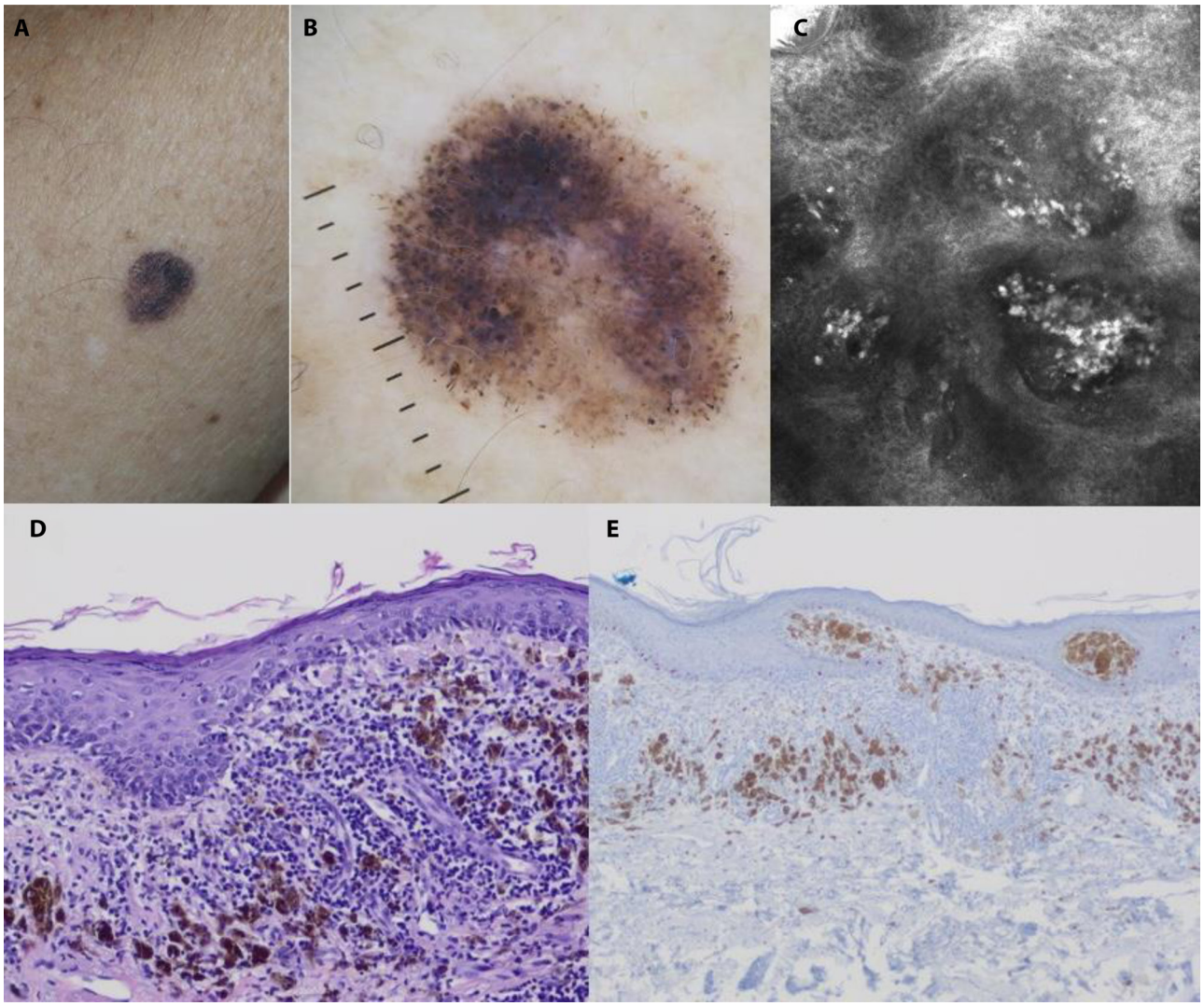

Figure 1. (A) Physical examination showed a 10 mm bluish-brown plaque. (B) Dermoscopy revealed a multicomponent pattern with multiple colors, and asymmetrically distributed blue-gray globules. Moreover, diffuse peripheral projections coalescing into pseudopods were observed on the left bottom side, and blue-gray veil and annular-granular structures in the center. (C) Reflectance confocal microscopy showed remnants of cord-like pattern, and aggregates of small-bright particles in the papillary dermis, corresponding to melanophages. (D) Histopathology, H&E 200x. Epidermal hyperplasia with hyperkeratosis, vacuolar-interface dermatitis and a dense dermal infiltrate of melanophages and lymphocytes. (E) SOX10 (Sry-related HMg-Box gene 10), 400x. Absence of melanocytic hyperplasia, and dermal melanophage-aggregates can be observed.

References

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