

Hutchinson's Sign without Melanonychia: A Key for the Diagnosis of Invasive Melanoma of the Nail Matrix

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Case Presentation

A 70-year-old male presented with a recently noticed pigmented lesion on the periungual region of the fifth finger of his right hand. Clinical examination revealed a 6 × 4 mm lesion on the proximal and lateral nailfolds, with no melanonychia (Figure 1). Dermoscopy showed irregular brown pigmentation and a parallel ridge pattern in the volar skin. Reflectance confocal microscopy revealed a regular honeycomb pattern, upper epidermis without atypical cells, and bright melanocytes at dermoepidermal junction (1–3 per dermal papilla). Initial punch biopsy demonstrated melanocytic

hyperplasia with mild atypia. To rule out matrix melanoma, nail matrix biopsy showed extensive melanocytic hyperplasia with PRAME positivity. Complete matricectomy revealed acral lentiginous melanoma with a Breslow thickness of 0.2 mm. Therapeutic margin widening surgery showed no residual neoplasia, confirmed by SOX10 immunohistochemistry.

Teaching Point

Subungual melanoma is a rare condition, accounting for only 0.7% to 3.5% of melanoma cases [1]. Subungual melanoma often presents with a pigmented brown or black longitudinal

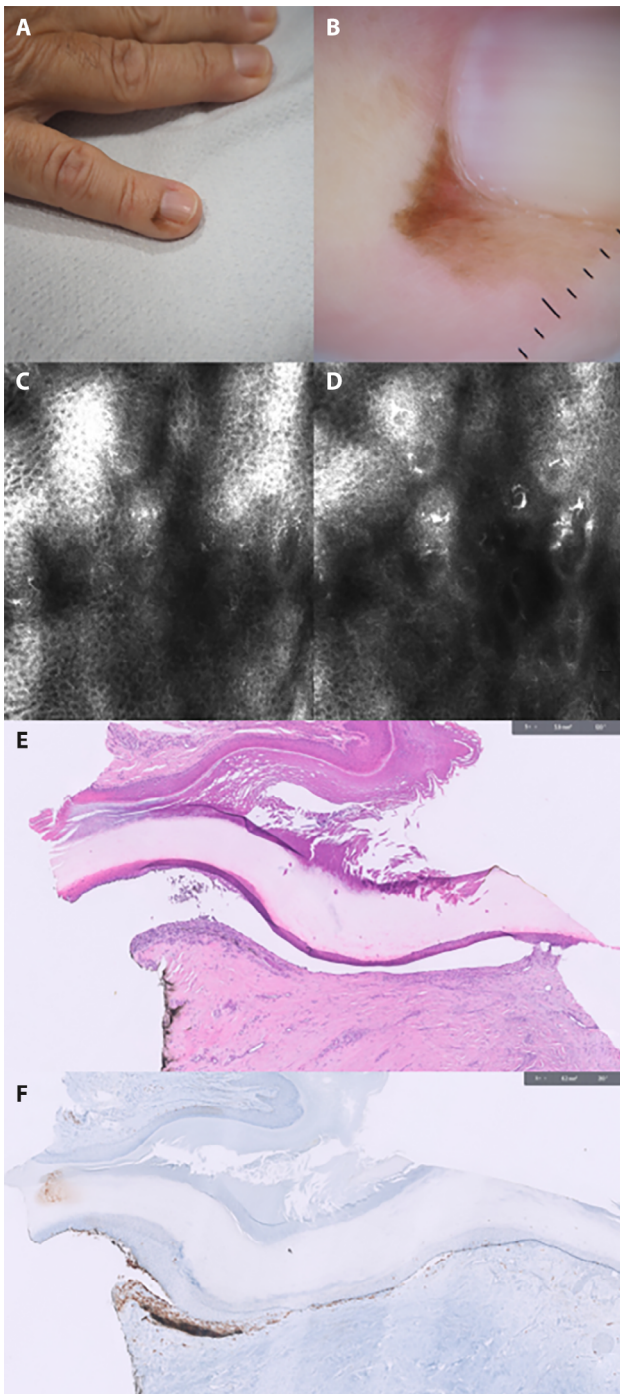


Figure 1. Clinical examination revealed a pigmented lesion on the lateral nailfold of the fifth finger of the right hand, extending to the periungual skin, with no evidence of melanonychia (A). Dermoscopy showed irregular, asymmetrical brown pigmentation radiating into the lateral nailfold, consistent with Hutchinson's sign (B). Reflectance confocal microscopy of the previously biopsied periungual skin demonstrated the honeycomb pattern of the epidermis, with the focal presence of shiny-white pagetoid dendritic cells (C) and irregular clusters of bright atypical dendritic cells at the dermoepidermal junction (D). Hematoxylin and eosin staining from the biopsy confirmed a proliferation of atypical melanocytes along the basal layer, with evidence of pagetoid spread in the epidermis (E). Immunohistochemical staining revealed SOX10 positivity in the atypical melanocytic proliferation, further supporting the diagnosis of acral lentiginous melanoma (F).

band, with irregularly pigmented lines involving 2/3 of the nail plate or the nailfolds with periungual pigmentation called Hutchinson's sign [2]. However, this case highlights Hutchinson's sign pigmentation of the periungual skin without nail plate pigmentation as an early indicator of invasive ungual melanoma, but biopsy should be performed in the nail matrix, origin of the tumor. This uncommon presentation could lead to diagnostic delays, further worsening the prognosis. Clinical suspicion is critical, even in the absence of melanonychia, particularly in patients over 50 years of age. Early biopsy of the nail matrix is essential to accurate diagnosis and timely treatment. Dermatologists should maintain a high index of suspicion for any periungual pigmentation, considering melanoma in the differential diagnosis [2].

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