Letter

Acral melanoma misdiagnosed as a skin infection: Importance of timely dermatologic evaluation

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To the Editor

Melanoma of the finger is a rare and aggressive tumor with poor prognosis owing to rapid progression. Early symptoms may be subtle and easily overlooked, leading to diagnosis at an advanced stage.[1] A 68-year-old White man presented with an asymptomatic, black, ulcerated lesion on the right thumb. The lesion had appeared 12 months earlier and gradually enlarged, with central ulceration developing over the past 4 months. He had applied mupirocin 2% ointment twice daily for 2 weeks without improvement. Previously, he had been seen in another hospital emergency department, where the wound was cleaned and necrotic tissue debrided. Past medical history was notable for type 2 diabetes mellitus for 20 years; family history was unremarkable.

Dermatologic examination revealed a black, crusted, ulcerated nodule measuring 1.2 cm on the distal and lateral right thumb, extending to the nail bed (**Figure 1**). Additional findings included subungual hyperkeratosis, yellow-brown lateral nail discoloration, and gray-black proximal nail discoloration. The patient was Fitzpatrick skin type III.[2] Dermatoscopy revealed irregular pigmentation, a blue-white veil, and hyperpigmented bands extending distally along the nail plate (**Figure 2**).

A skin biopsy from the ulcerated nodule confirmed acral melanoma, with both radial and vertical growth phases present. Breslow thickness was 1.7 mm, and Clark level was at least III. Pagetoid spread was observed; there was no mitosis, ulceration, neural invasion, or lymphovascular invasion. Immunohistochemistry demonstrated Melan-A–positive melanocytic cells, loss of maturation with HMB-45, and 20% proliferative activity with Ki-67 (**Figure 3**). The finger was amputated at the metacarpophalangeal joint. PET/CT revealed pathologically increased 18F-fluorodeoxyglucose uptake in right axillary and epitrochlear lymph nodes. The patient was scheduled for lymph node biopsy in these regions.

Melanoma arises from melanocytes and most commonly occurs on the skin. Its incidence has been increas-

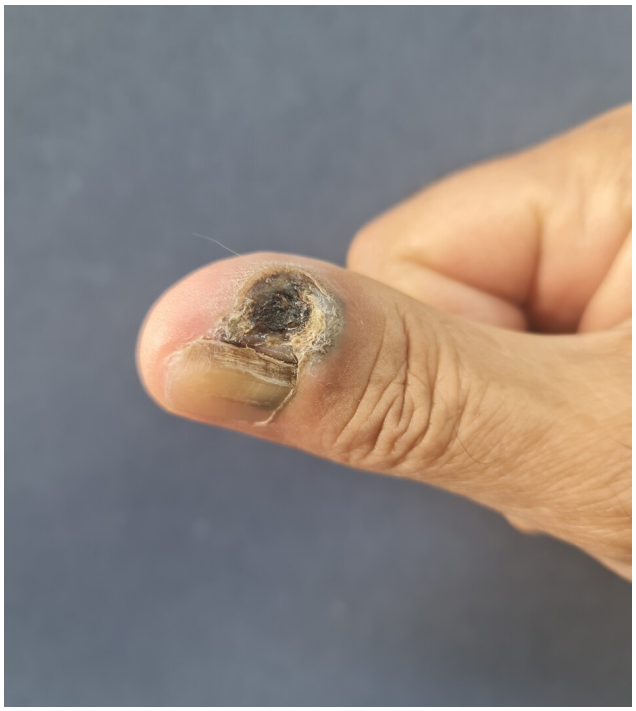

Figure 1. *Blue-black, ulcerated nodule on the right thumb with longitudinal melanonychia.*

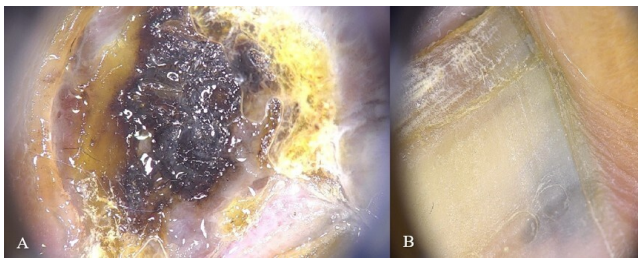

Figure 2. *Dermatoscopic view of the **(A)** ulcerated nodule and **(B)** nail of the right thumb (original magnification ×20).*

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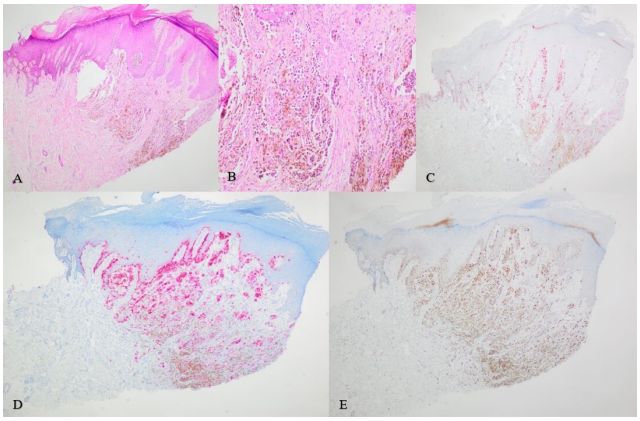

Figure 3. *Histopathology and immunohistochemistry of acral melanoma:* ***(A)*** *Atypical melanocytic cells extending from epidermis to dermis with eosinophilic cytoplasm, occasional prominent nucleoli, and brown pigment (hematoxylin-eosin, original magnification ×40).* ***(B)*** *Atypical melanocytic cells (hematoxylin-eosin, original magnification ×100).* ***(C)*** *Melan-A–positive cells with 20% Ki-67 proliferative activity (immunohistochemistry, original magnification ×40).* ***(D)*** *Loss of maturation with HMB-45 (immunohistochemistry, original magnification ×40).* ***(E)*** *Positive Cyclin D1 staining (immunohistochemistry, original magnification ×40).*

ing globally.[3,4] Most lesions are asymptomatic and detected during routine skin examinations, but advanced lesions may present as itchy, bleeding, or crusted hyperpigmented lesions, drawing patient attention.[5] Hyperpigmented lesions are often noticeable on dermatologic exam, and dermatoscopy aids in diagnosis, though definitive diagnosis requires histopathology.[4]

Melanoma rarely occurs on the fingers; however, when present, it may progress rapidly and carries a poor prognosis. Early recognition and treatment are critical to improving outcomes. Mild or atypical lesions may be misdiagnosed as trauma or small ulcers, delaying diagnosis.[6] This case highlights the importance of educating clinicians and patients about melanoma, encouraging regular dermatologic examination, and promoting prompt evaluation of pigmented lesions for early detection.

Potential conflicts of interest

The authors declare no conflicts of interest.

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