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Subungual nail bed melanoma masquerading as tinea unguium

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Abstract

Subungual amelanotic melanoma can masquerade as onychomycosis. Recently a man whose amelanotic nail bed melanoma presented as persistent onychodystrophy was reported in the *Dermatology Online Journal*. The patient had a persistent nail dystrophy; culture and biopsy of the nail demonstrated *Candida* and dermatophyte infection, respectively. However, he subsequently presented with a nodule that was biopsied and demonstrated melanoma. Similar to that patient, we recently described a 67-year-old woman with a four-year history of persistent nail dystrophy of the left fourth fingernail who had a periodic acid-Schiff staining of the nail plate demonstrating fungal hyphae. Her nail plate subsequently detached, demonstrating a friable nodule; a biopsy of the nodule demonstrated melanoma. In conclusion, in individuals with new morphologic changes to a dystrophic nail or with persistent nail dystrophy despite appropriate therapy, it is important for clinicians to consider performing additional evaluation and possible biopsy to exclude malignancy.

Keywords: amelanotic, malignant, masquerading, melanoma, mimicking, nail, onychomycosis, subungual, tumor, unguium

Introduction

We read with interest the manuscript titled “An amelanotic nail bed melanoma presenting as persistent onychodystrophy” by Ishii et al. [1]. We appreciate this excellent paper that acknowledges

the diligence in establishing the diagnosis of a nail bed amelanotic melanoma. Indeed, subungual amelanotic melanoma is rare and can mimic other non-melanocytic tumors. In addition, nail dystrophy related to an underlying amelanotic melanoma may present with a concomitant fungal nail plate infection, further complicating the diagnosis.

We recently also described a 67-year-old woman with a four-year history of persistent nail dystrophy of the left fourth fingernail [2]. Nail clipping was performed and periodic acid-Schiff staining of the nail plate demonstrated fungal hyphae, establishing a diagnosis of onychomycosis. The patient declined therapy for her onychomycosis. However, her nail plate subsequently detached and she returned for follow-up evaluation. Examination of the digit



Figure 1. The left fourth digit of a 67-year-old woman's hand. The nail plate has detached and the nail bed shows an erythematous, friable nodule. Microscopic examination of the nodule demonstrated a melanoma.

revealed an erythematous, friable nodule; biopsy confirmed a diagnosis of melanoma (Figure 1). Amelanotic melanoma of the nail unit can present with persistent nail plate dystrophy and can masquerade as onychomycosis. We note that both our patient and that of Ishii et al. presented with persistent nail dystrophy that had been present for several years. Neither patient had nail fold pigmentation present on initial or subsequent evaluations. Both individuals had a concurrent biopsy or culture or both that confirmed the presence of a fungal (*Candida* or dermatophyte) infection of the nail plate. Both patients later presented with non-pigmented nodules that were biopsied and established the diagnosis of melanoma. Hence, the diagnosis of onychomycosis

does not exclude the possibility of amelanotic melanoma in a patient with persistent nail dystrophy.

Conclusion

We concur with Ishii et al. that dermatologists should maintain an index of suspicion for malignancy in patients with persistent, single nail dystrophy. Indeed, close follow-up and repeat evaluation of patients with persistent nail dystrophy is warranted. In conclusion, evaluation and possible biopsy — to exclude malignancy — should be considered in individuals with new morphologic changes to a dystrophic nail or with persistent nail plate dystrophy despite appropriate therapy.

References

1. Ishii L, Richmond NA, Carstens S, Vincek V. A case of amelanotic subungual melanoma. *Dermatol Online J* 2018;24(3). [PMID: 29634884].
2. Riahi RR, Cohen PR, Goldberg LH. Subungual amelanotic melanoma masquerading as onychomycosis. *Cureus* 2018;10(3):e2307. [PMID: 29755903].