

Photoclinic



Figure 1. Hyperpigmented ulcerated plaque on left heel.

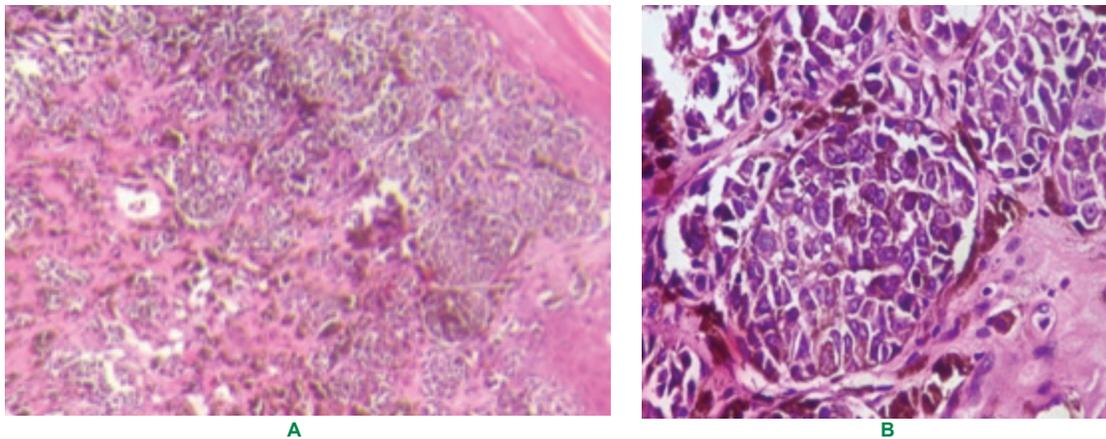


Figure 2. **A**) HE-Histologic section of the incisional biopsy of the skin shows irregular nests of atypical melanocytes within epidermis and dermis (H&E, 40×). **B**) Higher magnification showing nests of atypical melanocytes (H&E, 100×).

**A** 77-year-old man presented to our private dermatology clinic with a 2-year history of a non-healing black ulceration involving the plantar aspect of the left heel (Figure 1). He had been treated with topical keratolytics and curettage of the lesion several times for about 2 years with a

callous diagnosis. Cutaneous examination was otherwise normal; no congenital or dysplastic nevi were identified. On general physical examination, the left inguinal lymph nodes were palpable. He was otherwise in good health.

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**What is your diagnosis?  
See the next page for diagnosis**

Photoclinic diagnosis: Acral Lentiginous Melanoma

An incisional biopsy of the skin was obtained. Histologic findings were consistent with acral lentiginous melanoma (ALM) with a Breslow depth of 3.5 mm and Clark's level of 4 (melanin granules within the cornified layer, pagetoid scatter of irregular nests of atypical melanocytes at all levels of the epidermis with lentiginous spread of single melanoma cells within the basal layer and proliferation of atypical melanocytes within the dermis). X-ray of the local part did not demonstrate involvement of the underlying bone. The histologic evaluation of left inguinal lymph nodes confirmed the presence of metastasis. Chest-abdomen-pelvis CT scans detected multiple nodular enhancements located within the liver and lungs. Serum lactate dehydrogenase level was elevated. The evaluations confirmed the diagnosis of ALM, stage 4 (T3b N2b M1c). The patient was referred to a multidisciplinary oncology center.

ALM was first described by Reed.<sup>1</sup> ALM is the rarest type of cutaneous melanoma with a predilection for the palms, soles, and the subungual areas which shows distinct radial or "lentiginous" growth phase.<sup>2</sup> Although ALM is the rarest type overall, it is the most common type of cutaneous melanoma in Asians since they do not typically develop sun-related melanomas.<sup>3</sup>

ALM typically presents as an asymmetric, irregular brown to black macula with color variations. Unfortunately, a disproportionate percentage of ALMs are diagnosed at advanced stages, probably due to the difficulty of distinguishing ALMs from benign and traumatic skin changes such as a verruca vulgaris, callous, tinea pedis, onychomycosis, traumatic ulcer, crusty lesion, foreign body, blister, nonhealing wound, melanocytic nevus, keratoacanthoma, subungual hematoma, and ingrown and infected toenails.<sup>4-7</sup>

Also, it should be considered that amelanotic malignant melanoma is a subtype of cutaneous melanoma with a little or no pigmentary change which may mimic benign lesions.<sup>8</sup>

Another reason delaying the diagnosis of ALM is the elevated threshold for biopsy because of the morbidity associated with

surgery at acral sites. Primary misdiagnosis of ALM occurs in about one-third of all patients.<sup>9</sup>

Since the prognosis of a patient with melanoma depends upon the stage at the time of diagnosis,<sup>10-11</sup> awareness that ALMs may be masqueraded as benign hyperkeratotic skin lesions may improve the prognosis. Therefore, it is suggested to lower the threshold of biopsy and perform a histologic examination in any acral lesions that do not heal.

## References

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