

Subungual Amelanotic Melanoma

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We describe a 76-year-old white male with subungual amelanotic melanoma. The lack of pigmentation of the lesion may cause misdiagnosis and aggravate its poor prognosis.

Subungual melanoma is frequently misdiagnosed, probably because of its nonspecific clinical features and the rarity of the lesion. We describe a patient with amelanotic subungual melanoma. The lack of pigmentation of the lesion contributed to the difficulty in the clinical diagnosis.

Case Report

A 76-year-old healthy, white patient had a 6-month history of a slowly growing lesion on a finger. On examination, a small bluish tumor was present on the

subungual area of the right-hand index finger. The skin surrounding the nail was edematous and slightly tender (Figure 1).

Histologic examination revealed a malignant neoplasm occupying the papillary and reticular dermis and focally invading the epidermis. The tumor was composed of nests with crowded fusiform cells separated by fibrous septa. The cells showed ovoid to irregularly shaped, slightly hyperchromatic nuclei (Figure 2). Several melanophages containing fine granular melanin pigment were noted in one focus of the tumor. A prominent lymphoplasmatic infiltrate was present within and at the periphery of the tumor. Immunohistochemical staining revealed the expression of S-100 protein and HMB-45 in many tumor cells. The patient underwent amputation of the finger at the proximal interphalangeal joint. The lesion was classified as malignant melanoma, Clark V, Breslow 0.7 cm, and the recovery was uneventful. A workup consisting of physical examination, full blood chemistry, computed tomographic scan, and bone scan was unremarkable and no evidence of metastasis was found.

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FIGURE 1. Bluish subungual tumor of the index finger.

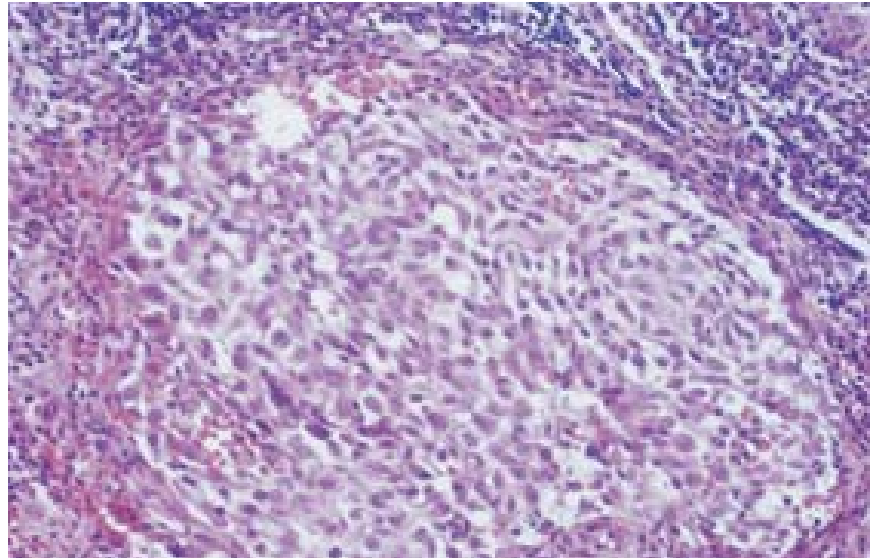


FIGURE 2. Higher magnification showed fusiform cells with ovoid- to irregular-shaped slightly hyperchromatic nuclei surrounded by fibrous septa and a lymphohistiocytic infiltrate (H & E stain; original magnification x 400).

Discussion

Subungual melanoma is frequently misdiagnosed, probably because of its nonspecific clinical features and the rarity of the lesion.¹ Subungual melanoma represents only 1 to 3% of all melanoma diagnosed in the Western world,^{2,3} although it is much more frequent in dark-skinned and Oriental populations.⁴⁻⁶ The incidence of amelanotic melanoma in all malignant melanomas is low,⁷ although the subungual region seems to be an area of predilection for amelanotic melanoma 15 to 25%.⁸⁻¹⁰ The lack of pigmentation of these lesions causes the clinical appearance to be nonspecific for melanoma. The differential diagnosis should include a variety of benign and malignant conditions such as subungual hematoma, paronychia, pyogenic granuloma, onychomycosis, glomus tumor, subungual nevus, subungual exostosis, mucous cyst, subungual fibroma, subungual verruca, keratoacanthoma, Bowen's disease, and subungual squamous cell carcinoma.¹¹ The poor prognosis of subungual melanoma is probably aggravated by the misdiagnosis of the lesion, therefore, subungual melanoma should be considered in all slow-growing subungual lesions.

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