Answer to Dermacase *continued from page 1697*

4. Amelanotic subungual melanoma

Acral lentiginous melanoma is the most common form of cutaneous melanoma in dark-skinned persons; however, it occurs infrequently among whites.[1] It can involve the palms, soles, or nail beds of the hands and feet. When it involves the nail bed it is referred to as subungual melanoma (SM).

Subungual melanoma is rare and accounts for only 1% to 3% of all cases of melanoma. In reviews of SM, the median age of affected patients is 59 years, with a slight increase in prevalence among men. The lesions are predominantly located on the hands (55%) as opposed to feet, and the thumb and big toe are most frequently involved. Subungual melanoma is usually asymptomatic and manifests with partial or total onycholysis and erosion and ulceration of the nail bed.[2] It can start at any time after puberty and affects only a single digit; some authors also underline the importance of preceding trauma as a triggering factor for malignant transformation, as its occurrence is more than coincidental in such cases.[3] Often, an important clue to the diagnosis of SM is the Hutchinson sign, which is characterized by the extension of brown-black pigment from the nail bed, matrix, and nail plate onto the adjacent cuticle and proximal or lateral nail folds.[2,4]

Unlike classical skin melanomas, which clinically present with a wide variety of colour ranging from black to black-blue to shades of brown and pink all within the same lesion area, amelanotic melanoma shows little or no pigmentation upon visual inspection. Although any clinical subtype of melanoma can be amelanotic and the incidence of amelanotic melanoma in all malignant melanoma is low (2% to 8% of cases), the subungual region seems to be an area of predilection—25% of SMs are amelanotic.[5]

Diagnosis

Subungual melanoma is an insidious, frequently misdiagnosed condition because of its nonspecific clinical features, and lack of pigmentation adds further difficulty to an already puzzling diagnosis. Patients and physicians must be educated to recognize the clinical signs of this particular melanoma; in dermatologic consultation, the skilled eye of a specialized observer, along with dermoscopy (the new method for noninvasive diagnosis of melanoma), is the best instrument in the selection of lesions for excisional biopsy. Precise biopsies are strongly recommended, even in lesion sites that are not easily accessible, such as the nail apparatus. Radiographic studies of the affected area are useful to exclude the possibility of bone lesions.[2,6,7]

Differential diagnoses include a variety of benign and malignant conditions, such as chronic paronychia, onychomycosis, subungual hematoma, pyogenic granuloma, glomus tumour, subungual verruca, mucous cyst, subungual fibroma, keratoacanthoma, carcinoma of the nail bed, and subungual exostosis.

With regard to prognosis, the outlook of SM is generally comparable with that of the other melanomas. The Breslow thickness remains the single most important prognostic factor, and there is no evidence to suggest that amelanotic melanocytes behave more aggressively than their pigmented counterparts.

Treatment

The prognosis of malignant SM is poor because most lesions are at an advanced stage at the time of diagnosis (mean Breslow thickness 4.8 mm). As in all types of melanoma, there is a direct relationship between increasing tumour thickness and decreasing survival time: a 5-year survival period is estimated for 88% of patients with a Breslow thickness of >2.5 mm, as opposed to 40% for those with a Breslow thickness of ≤2.5 mm. Ulceration and bone involvement are also unfavourable prognostic factors.[6-8]

Given the rarity of SM and the general lack of experience in its treatment, patients would benefit from being managed by multidisciplinary teams in designated skin cancer centres at the earliest possible stage. Treatment remains surgical and consists of complete excision of the tumour. The level of amputation has been debated; however, as long as clear margins are obtained, conservative levels of amputation are safe and do not adversely affect overall survival with good residual function capacity.

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Competing interests
None declared

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