INTRODUCTION
Melanoma is a malignancy of pigment-producing cells (melanocytes) located predominantly in the skin, but also found in the eyes, ear, gastrointestinal tract, leptomeninges, oral and genital mucous membranes. Melanoma accounts for only 4% of all skin cancers; however, it causes the greatest number of skin cancer-related deaths worldwide. Early detection of thin cutaneous melanoma by physicians and patient education is the best means of reducing mortality. Recent data suggest multiple pathways of melanoma pathogenesis, with melanomas in sun-protected skin (trunk) developing in association with a high nevus count and intermittent ultraviolet radiation as opposed to those developing on sun-exposed skin in patients with low nevus counts and chronic sun exposure.\(^1\,^2\)

The development of melanoma is multifactorial and appears to be related to multiple risk factors, including fair complexion, excessive childhood sun exposure and blistering childhood sunburns, an increased number of common and dysplastic moles, a family history of melanoma, the presence of a changing mole or evolving lesion on the skin, and, importantly, older age.\(^3\,^4\) The most important aspects of the initial workup for patients with cutaneous melanoma are a careful history, review of systems, and physical examination following ABCDE approach.\(^5\) The Gold standard for melanoma diagnosis is histological examination of skin lesions.

The present case report describes a malignant melanoma occurring on a non-exposed uncommon site.

CASE REPORT
An 88 years old man presented to the emergency department with a painless mass on his right heel that was first noticed 4 months ago. Since then, this had enlarged gradually. Apart from causing discomfort in walking, it had started bleeding intermittently. There were no systemic symptoms of malaise, weight loss, leg swelling, headache or haemoptysis. He denied any history of local trauma or decreased sensations.

General physical examination was unremarkable. Examination of the right heel revealed 4 cm, fungating, non-tender mass with areas of central necrosis on the plantar aspect (Figure 1). Skin surrounding the lesion was raised, with ill-defined borders and areas of uneven skin. There was no palpable inguinal or popliteal lymphadenopathy, varicose veins, lower-extremity oedema, or similar lesions elsewhere. The lesion was biopsied under local anaesthesia, which revealed nodular malignant melanoma with 8 mm Breslow thickness. Tumour was excised with free margin of 2 cm. The wound was approximated with subcuticular stitches and antiseptic dressing applied. After 3 years of review, patient is symptoms free and no complication or recurrence has been reported so far.
**DISCUSSION**

Malignant melanoma can occur on any area of the skin or mucosa, even in non-sun-exposed skin, as in this patient. Except for the acral-lentiginous subtype of melanoma, the vast majority occurs in sun-exposed areas. Other clinical-histopathologic subtypes are nodular (as in this patient), superficial spreading, and lentigo maligna.

Most melanomas occur in people of Caucasian descent who have fair skin and a history of multiple or severe sunburns. The incidence of melanomas in this group is 5 times that of individuals without fair skin, who are most likely to have acral-lentiginous subtype.

Therefore, in patients without fair skin, particular attention must be focussed on pigmented lesions on the soles, palms, nails, and mucosal surfaces.

Any non-healing, bleeding, unusual, or ulcerated skin lesion should be considered suspicious and studied with biopsy. An ABCD mnemonic can be used as a guide for evaluating suspicious lesions, where A = asymmetry, B = border irregularity, C = colour, and D =diameter larger than 6 mm.\(^6\)

Any change in the shape, colour, or size of a pre-existing nevus should raise concern. Pruritus, pain, or tenderness also suggests melanoma. Bleeding and ulceration suggest that advanced disease is likely.

Risk factors for melanoma include being fair skinned, easily sunburned, having a history of blistering sunburns before the age of 12 years, a family or personal history of melanoma and several dysplastic nevi.\(^7,8\)

Individuals with risk factors should use sun protection, such as wearing protective clothing and wide-brimmed hats and avoiding direct exposure to the sun from 10 AM to 3 PM. Sunscreen, though useful in preventing basal and squamous cell carcinomas, does not protect against melanoma. The use of sunscreen may ironically provide a false sense of security, as it protects against burning UVB rays but not the UVA rays that promote melanoma. Finally, individuals with a personal history of melanoma are at the highest risk and should undergo complete skin examination performed by a dermatologist at least once or twice yearly.

All patients with suspicious lesions should be referred to a general surgeon for possible biopsy. If melanoma is diagnosed with biopsy, its thickness should be measured. If it is greater than 1mm, biopsy of a sentinel lymph node should be performed to adequately stage the tumour. Patients with melanomas in situ have a 5-year survival rate of nearly 100%. Those with tumours < 0.75 mm in thickness without nodal involvement have a 5-year survival rate of more than 95%.

However, with widespread lymphatic involvement, the 5-year survival rate is approximately 25%, even with the most aggressive treatment. Advanced age, male sex, ulceration, increasing tumour thickness, location in the head or neck, acral and/or mucosal involvement are associated with a worsened prognosis.

Treatment for non-metastatic, localized melanoma involves excision with tumour-free margins of at least 1 cm for melanomas less than 2 mm in thickness or at least 2 cm margins for tumours 2 mm or thicker.\(^8\) If localized nodal involvement is found on clinical evaluation or biopsy of the sentinel lymph node, therapeutic lymphnode dissection may be indicated.

Metastatic malignant melanoma can be treated medically with high-dose interferon-alpha, which improves recurrence-free survival rates. The use of chemotherapy and melanoma vaccine shows promise. Still, the current prognosis for patients with metastatic disease remains poor.

**REFERENCES**


