

Unusual Morphological Presentation of Cutaneous Malignant Melanoma: A Rare Case Report

Abstract

Cutaneous malignant melanoma is a rapidly progressing skin tumor accounting for most deaths from skin malignancies. Four morphological variants (nodular, superficial spreading, lentigo maligna, and acral lentiginous) are described in the literature. Here we are reporting malignant melanoma in a 35-year-old male who presented with depigmented plaques with few hyperpigmented areas and extensive overlying scaling. The patient progressed to the nodular stage within 2 weeks and succumbed to death during chemotherapy. We are reporting such rare presentation of malignant melanoma to create awareness among dermatologists to avoid misdiagnosis and delayed treatment which can lead to rapid progression and fatal outcome.

Keywords: Cutaneous malignant melanoma, leukoderma, scaling, unilateral limb involvement, vitiligo like

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Introduction

Cutaneous malignant melanoma is one of the most aggressive skin tumor accounting for around 70–80% of deaths from skin malignancy.^[1,2] Median survival after the onset of distant metastases is only 6–9 months, and the 5-year survival rate is less than 5%.^[3] So, early detection and surgical resection are often curative, with improved survival and reduced mortality. We are reporting a 35-year-old patient presenting with unusual morphology of cutaneous malignant melanoma involving the whole left leg who was diagnosed as malignant melanoma by histopathology and succumbed to death during chemotherapy.

Case Report

A 35-year-old male presented with gradually increasing hyperpigmented plaques over left leg and thigh with depigmentation and overlying scaling at some places. The lesion initially started as a hyperpigmented plaque of size 1×1 cm² over the distal leg and within a month, progressed proximally to involve whole left lower limb with depigmentation and scaling over the surface. Examination revealed indurated hyperpigmented, hypopigmented plaques with scaling at some places

over almost the entire left leg and thigh [Figure 1a-d]. There were multiple enlarged matted and partially immobile bilateral inguinal lymphadenopathy. Investigations including peripheral smear and skin biopsy were done and the patient was planned for bone marrow aspiration. Within 15 days, he developed new pigmented nodules over pre-existing plaques over the thigh [Figure 2a and b]. Histopathology from both hyperpigmented plaques and pigmented nodules on the thigh revealed features of invasive malignant melanoma [Figure 3a and b] which had invaded 7 mm deep up to reticular dermis (Clark level 4) and there was evidence of lymphovascular invasion. Fine needle aspiration cytology from inguinal lymph nodes also showed similar features of invasive malignant melanoma. Chest X-ray, ultrasound, and contrast-enhanced computed tomography of abdomen and pelvis, thorax were normal. Diagnosis of malignant melanoma was made based on the histopathological features. He was referred to the oncology department for further management. However, the patient died of septicemia while on chemotherapy.

Discussion

Malignant melanoma is one of the most lethal cancer and one of the most common

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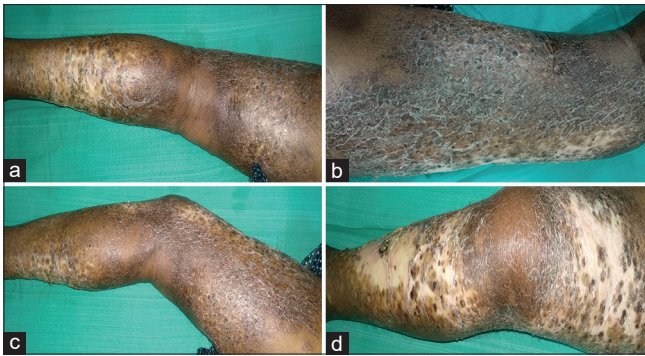


Figure 1: (a) Indurated hyperpigmented plaques with vitiligo-like depigmentation and overlying scaling (posterior aspect). (b) Indurated hyperpigmented plaques over the left thigh (magnified view). (c) Indurated hyperpigmented plaques over the left leg and thigh with hypopigmentation at places (side view). (d) Indurated hyperpigmented plaques over the left leg and thigh with hypopigmentation and scaling at places (anterior aspect)



Figure 2: (a) Pigmented nodules over the pre-existing plaques over left thigh (marked by black arrow). (b) Magnified view of the pigmented nodules (marked by black arrow)

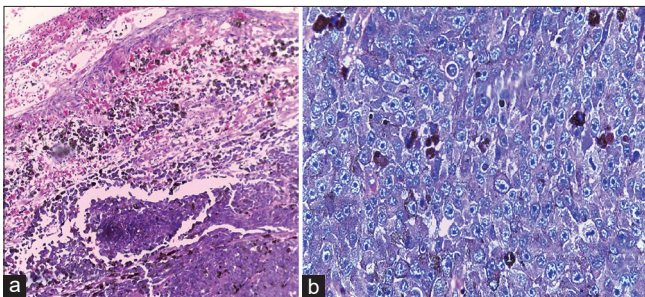


Figure 3: (a) Ulcerated epidermis, obscured dermo-epidermal junction with junctional activity, atypical melanin-containing cells in single and clusters throughout the epidermis. (H and E, 4x). (b) Dermis is infiltrated by large sheets of atypical cells which depict marked nuclear pleomorphism, many showing prominent melanin pigmentation, large eosinophilic nucleoli. Frequent mitotic figures including atypical ones are observed (H and E, 40x)

cause of death from malignancies in young adults. The skin and subcutaneous tissue are among the common sites of

metastasis in most cases of metastatic melanoma. The first classification system proposed by Mc Govern *et al.*^[4] in 1973 divided cutaneous malignant melanoma into four main types: nodular melanoma (NM), superficial spreading melanoma (SSM), lentigo maligna melanoma (LMM), and acral lentiginous melanoma (ALM).^[5] Diagnosis is mostly based on histopathology, that is, asymmetry, ulceration, cytological atypia, pagetoid involvement of the epidermis, lack of maturation, and dermal mitosis.^[5] Current therapeutic approaches include surgical resection, chemotherapy, photodynamic therapy, immunotherapy, biochemotherapy, and targeted therapy.^[6,7] Once it becomes metastatic, the prognosis is very poor. Therefore, early identification of this cancer is crucial for the success of treatment. Our patient presented with gradually increasing hyperpigmented plaques over left leg and thigh with depigmentation (vitiligo-like) and overlying scaling at some places. Subsequently, he developed blackish nodules over pre-existing lesions within 15 days of the first visit which on biopsy revealed similar findings of invasive malignant melanoma. Similar vitiligo-like depigmentation in malignant melanoma has been reported in literature.^[8,9] It is postulated that depigmentation is due to immune-mediated response against antigens shared by normal melanocytes and melanoma cells by CD8+ T cells, thus resulting in destruction of normal melanocytes.^[10] Our case was unique in having ichthyotic scaling in addition to leukoderma-like lesions which is not reported in literature. Authors could not justify the reason behind such unique presentation. Literature review showed the presentation of malignant melanoma is usually localized in contrast to our case who had the entire limb involved by malignant melanoma. We are reporting this case to highlight the unusual and extensive morphological presentation of malignant melanoma.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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