Malignant Melanoma Heel: A Case Report

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Malignant melanoma is a malignancy of melanocytes. It occurs in skin and mucous membranes. Among cutaneous melanoma, 30% of the cases occur in the lower limbs. Women are more prone to the melanoma in the lower limbs. In cutaneous melanoma, foot and ankle lesions comprise 3-15% of all cutaneous melanomas. Here, we report a case of malignant melanoma occurring in a female over the right heel. In this case, melanoma metastasized to the liver and inguinal lymph nodes. The prognosis of the malignant melanoma with metastasis is very poor. The treatment of malignant melanoma is mainly surgical excision of lesion with 0.5-1 cm margin. Adjuvant therapy should be given with interferon alfa to the high-risk patients and when melanoma metastasized to distant organs such as liver and lung. Adjuvant radiotherapy is considered for patients with nodal metastasis, with a single node measuring more than 3 cm or if patient is at a high risk for nodal recurrence even after adequate treatment.

Keywords: Liver metastases, Malignant melanoma, Secondaries

INTRODUCTION

Malignant melanoma is a malignancy of melanocytes. Melanomas are classified into the following subtypes by Clark et al. (1) superficial spreading melanoma, (2) acrolentiginous melanoma, (3) lentigomaligna melanoma, and (4) nodular melanoma.¹ The risk factors for melanoma are sun exposure, and especially for acrolentiginous melanoma, trauma is also a risk factor. The malignant melanoma age distribution is in between 27 and 70 years and the peak age is at 50 years. Malignant melanoma of foot accounts for 3-15% of all cutaneous melanomas.

A 45-year-old female presented to the surgical outpatient department with ulceroproliferative growth of 6-month duration. Biopsy of the lesion revealed malignant melanoma. Wide excision was not feasible in this patient, hence below knee amputation was done, followed by chemotherapy.

CASE REPORT

A 45-year-old female presented with ulceroproliferative growth over the sole of the right foot for 6 months, associated with pain and an inability to walk for 2 months.

The patient sustained accidental thorn prick to the right foot 8 months back. After 1 month, blebs and ulcer developed in the thorn prick area and it rapidly progressed to the present ulceroproliferative growth area of size 8 cm × 6 cm. The growth was associated with pain and difficulty in walking for 2 months. The patient noticed blackish discoloration of the growth associated with purulent discharge since then.

On examination, a single irregular-shaped ulceroproliferative growth (Figure 1) was seen over plantar aspect on the right foot of size 8 cm × 6 cm. Blackish discoloration with purulent lesion was observed. Margins were irregular. It was tender and was bleeding on touch.

Right inguinal lymphadenopathy (Figure 2) was present. Per abdomen examination showed hepatomegaly (Figure 3).

Ultrasound and CT abdomen were showing multiple secondaries in liver (Figures 4 and 5). Edge biopsy of the growth confirmed malignant melanoma. Fine-needle aspiration cytology of the lymph node demonstrated the metastasis of the melanoma (Figures 6 and 7). Below knee amputation was done followed by chemotherapy.

DISCUSSION

Melanoma is a malignancy of melanocytes. It occurs in skin and mucosal surfaces. Among the cutaneous melanomas, about 30% occur in lower limbs, women are more prone to the development of melanoma in the lower limbs, and foot and ankle lesions comprise 3-15% of all cutaneous melanomas.² Malignant melanoma is common in foot.²
Green et al. in a case–control study of 275 malignant melanoma foot cases studied risk factors for the foot melanoma and found sun exposure to be the significant risk factor for the development of melanoma. Interestingly, trauma to the foot was proposed as a risk factor for the development of the melanoma foot. Clark et al. in 1969 subdivided the malignant melanoma into three types: Superficial spreading, nodular melanoma, and lentigo-malignant melanoma. Later, acrolentiginous melanoma was added by Reed. The most common symptom of the melanoma over foot is change of size in lesion (38%) followed by bleeding (19%) and changing color (9%) of the lesion. Bleeding is the common symptom after vertical growth if the melanoma becomes ulcerated. Melanoma arising from foot is associated with a poor prognosis.
Assessment of foot lesion with change in shape and color gives rise to the suspicion of the malignant change, and edge biopsy should be performed to confirm the diagnosis. Melanoma occurs between the ages of 20-74 years. Peak incidence is at 50 years. Treatment and prognosis depend on Clarks level of invasion at the time of diagnosis. Wanebo et al. described that nodal metastasis occurs in 4% for level II, 7% for level III, 25% for level IV, and 70% for level V of Clarks level of invasion. In this patient, the right-sided foot malignant melanoma metastasized to the right inguinal lymph nodes and liver, so it has a poor prognosis. Adjuvant therapy should be given with interferon alfa to the high-risk patients and when melanoma metastasized to distant organs. Adjuvant radiotherapy is considered for patients with nodal metastasis, with a single node measuring more than 3 cm or if patient is at a high risk for nodal recurrence.

REFERENCES