

An unusual case of masquerading malignant melanoma

Saurabh Samdariya, Dewesh Kumar¹, Chendil Vishwanathan², Iqbal Ahmed²

Departments of Radiation Oncology and ¹Community and Family Medicine, All India Institute of Medical Sciences, Jodhpur, Rajasthan, ²Department of Radiation Oncology, Bangalore Medical College and Research Institute, Bengaluru, Karnataka, India

ABSTRACT

Metastatic malignant melanoma is an aggressive rare skin cancer with fatal outcomes. Sole of the foot is often a lately identified site and misdiagnosed with other skin pathologies. We present a middle-aged male diagnosed with malignant melanoma of sole of the foot with extensive distant metastasis. He presented to the hospital with the complaints of enlarged inguinal lymph node. He was unaware of the lesion present on sole of the foot till it was diagnosed. Educational activities for health professionals and awareness programs for public are present day's need for identification of this disease in its early stage to enhance the possibilities of cure.

Key words: Fatal, foot, malignant melanoma, metastatic disease

INTRODUCTION

Metastatic malignant melanoma is considered the most aggressive form of skin cancer with a median overall survival of less than a year.^[1] Despite being an uncommon form of skin cancer, it results in the majority of skin cancer deaths.^[2] Mortality and morbidity remain high in older adults,^[3] males,^[4] less affluent^[5] and less well-educated people.^[6] Foot is the primary site of involvement in approximately 3–15% of all cutaneous malignant melanoma.^[7] Malignant melanoma of the foot holds a poorer prognosis than melanoma elsewhere.^[8] A lesion on the face is likely to result in prompt action by the patient and practitioner than one on the foot; consequently a delayed presentation results in thicker and more advanced tumors. Additionally foot melanoma, possibly because of its rarity, is frequently misdiagnosed with common foot disorder such as tinea pedis, onychomycosis, warts, hematoma, and paronychia, in growing toe nail, blisters, ganglions and callus. Misdiagnosis rates for melanoma of the foot have been

reported to be between 25% and 66%^[6,9] compared with much lower rates of 12–16% for melanoma at other sites.^[10] We report a case of malignant melanoma of the foot who had widespread metastatic disease on presentation.

CASE REPORT

A 45-year-old male, mechanic by occupation, known diabetic and hypertensive from Bengaluru (Karnataka, India) reported to the Department of Radiotherapy, Victoria Hospital, with chief complaints of swelling in right groin since 3 months and swelling of right lower limb since 15 days. Patient was shown to a local practitioner and biopsy of the groin mass was done, which revealed metastatic deposits showing poorly differentiated carcinoma and patient was referred to for further management. On evaluating detailed history of patient revealed that he underwent surgical excision of a small black colored skin thickening of sole of right foot 1-year back, which reappeared 6 months thereafter with bigger size and accompanying similar black colored smaller skin thickenings around the previous skin lesion.

On examination, there was a matted lymph nodal mass measuring approximately 13 cm × 14 cm present in right inguinal region. On careful examination, a black color papule measuring approximately 1.5 cm × 1.5 cm was found on sole of the right foot at the site of calcaneum process [Figure 1]. There were five sub-centimetric satellite lesions noted around the papule [Figure 2].

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Address for correspondence: Dr. Saurabh Samdariya, Room No 311, Resident Hostel, AIIMS Residential Complex, Basni Phase-II, Jodhpur - 342 005, Rajasthan, India. E-mail: drsaurabh.onco@gmail.com

Patient was evaluated by biopsy of inguinal lymph node which showed a poorly differentiated tumor with melanin pigment [Figure 3]. Further immunohistochemistry study of the biopsy sample showed neoplastic cells positive for Melan-A, HMB-45 [Figure 4], Vimentin, focally for S-100 and negative for LCA, CD20, CK, synaptophysin, CD3. Then a diagnosis of melanoma of sole of the foot was made, and patient was further evaluated for visceral metastasis.

Bone marrow biopsy was positive for metastatic deposits of malignant melanoma. Contrast-enhanced computed tomography scan of abdomen and pelvis revealed multiple bulky non enhancing nodes in paraaortic, aortocaval group encasing aorta, and inferior mesenteric artery [Figure 5]. It also revealed multiple mediastinal hilar lymph nodes in the chest and multiple focal hypodense nodules of varying sizes in both lobes of the liver [Figure 6] and bilateral



Figure 1: Malignant melanoma affecting sole of the foot



Figure 2: Satellite lesions in the vicinity to the primary lesion

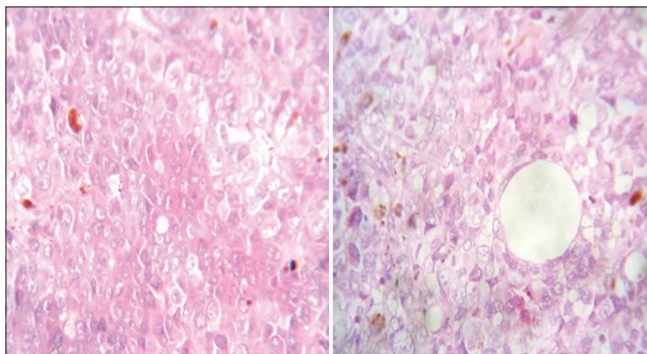


Figure 3: Poorly differentiated tumor with melanin pigment

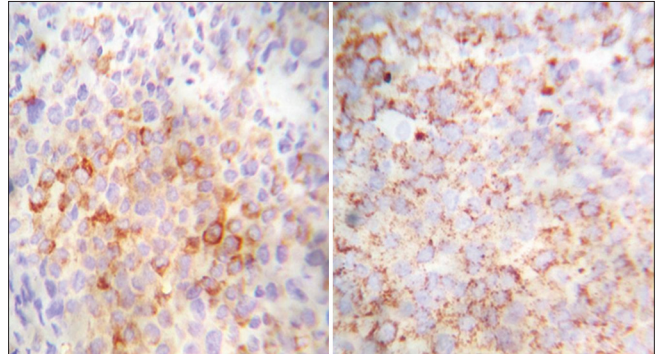


Figure 4: Immunohistochemistry positive Melan-A and HMB-45

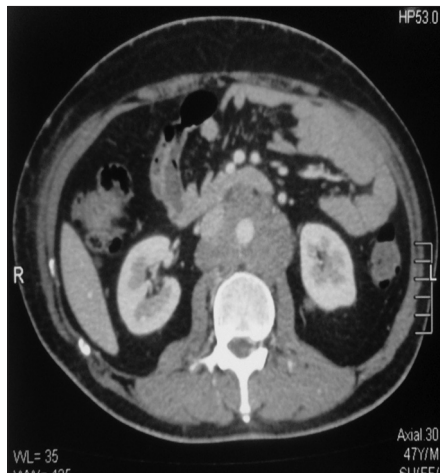


Figure 5: Enlarged aortocaval and paraaortic lymph nodes



Figure 6: Multiple liver metastases

lungs. A small hypodense nodule in left adrenal gland and sclerotic bone lesion in T7 vertebra suggesting metastatic lesion were seen.

Hence, a final diagnosis of malignant melanoma of sole of the foot with distant metastasis was made. Patient and his relatives were counseled regarding metastatic nature of the disease and poor prognosis associated with it. Despite all therapeutic measures patient's disease progressed, and he died of multiorgan failure after 4 months of presentation.

DISCUSSION

Malignant melanoma is the most aggressive skin cancer associated with fatal outcomes. Melanoma affecting sole of the foot has a poorer prognosis than other sites of the body.^[8] This may be due to delayed detection of abnormality by patient and medical practitioner. Delayed presentation of these lesions results in thicker and more advanced tumors. Secondly, foot melanoma, possibly because of its rarity, is frequently misdiagnosed as a more common benign foot disorder.

The rapid fatal outcome of our patient within 1-year shows the rapid progressive nature of this disease. Associated diabetes mellitus in our patient also made him more immunosuppressed leading to further accelerating the progression of melanoma. Patient's negligence and medical practitioner misdiagnosis are also contributing factor in the progression of the disease.

The rapidly progressing course of this disease can be counteracted by its early diagnosis and treating it in early stages. Bristow *et al.* has described clinical guidelines for the recognition of melanoma of the foot and nail unit.^[11] Early diagnosis of this disease can be achieved by increasing awareness among public and training of medical practitioners.

CONCLUSION

Malignant melanoma of the foot can be considered as a differential diagnosis in small papular skin lesions found on

foot. Health care programs should be undertaken actively to spread awareness about these types of rare and fatal cancers.

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