

Case Report

Isolated Metastatic Malignant Melanoma of the Right Inguinal Lymph Node with Unknown Primary Lesion

Debasish Das¹, Deb Prosad Paul², Kazi Sohel Iqbal³

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Abstract

Malignant melanoma develops from the pigment containing cells known as melanocytes. Melanoma is more common in men than in women. It is found typically in the skin. It is also found in the mouth, intestine, eye and other sites. Melanoma may develop from a mole with changes including an increasing in size, irregular edges, changes in color, itchiness or skin breakdown. Prognosis is poor if it is not treated early. The primary cause of melanoma is UV light exposure. Patients with history of affected family members and poor immune function are at greater risk. Diagnosis is by biopsy from any affected skin lesion. Recurrence is common even many years after the initial diagnosis. Here we present a case of malignant melanoma of the inguinal lymph node with unknown primary lesion. Surgery was done with complete excision of inguinal lymph node. Biopsy report showed metastatic malignant melanoma.

Key words: *Isolated; Metastases; Malignant melanoma*

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Introduction

Malignant melanoma is a type of cancer that develops from the pigment containing cells known as melanocytes.¹ Melanoma typically occurs in the skin but rarely occurs in the mouth, intestine, eye and other sites.^{1,2} The commonest site of presentation for men is trunk and for women is the lower limbs.² Patients with history of affected family members and poor immune function are at greater risk.¹ Sometimes melanoma develops from a mole with changes including an increase in size, irregular edges, changes in color, itchiness or skin breakdown.¹ Prognosis is poor if it is not detected and treated early. The primary cause of melanoma is UV light exposure in person with low level of skin pigment.^{2,3} It is more common in men than in women.⁴ The incidence is 2–3%.⁵ Around 90% melanomas have cutaneous origin but these could be found in visceral organs or lymph nodes with unknown primary site.⁵ Spontaneous regression

of the primary site could be an explanation.^{5,6} With treatment five year survival rate is 50%.⁵ A number of genetic defects also increased risk.⁴ Diagnosis is by biopsy from any affected skin lesion.¹ Recurrence is common even many years after the initial diagnosis. Here we present a case of malignant melanoma of the inguinal lymph node with unknown primary lesion. We report this case to emphasize the need for timely diagnosis and prompt treatment.

Case report

A 45-year-old male presented in the Department of Surgery in Enam Medical College Hospital with the complaints of a swelling in the right groin. The swelling was of seven months duration with gradual increase in size. He had no significant past medical history. He was nonsmoker, nondiabetic and normotensive. He was a farmer and living with his family. On evaluation there was no history of any constitutional symptoms like fever, chills and weight

1. Associate Professor, Department of Surgery, Enam Medical College & Hospital, Savar, Dhaka

2. Professor, Department of Surgery, Enam Medical College & Hospital, Savar, Dhaka

3. Professor, Department of Surgery, M H Shamarita Medical College & Hospital, Dhaka

Correspondence Debasish Das, Email: deba_laboni73@yahoo.com

loss. General examinations showed a hypermature cataract on the left eye. On physical examination, there was a swollen right inguinal lymph node. It was globular in shape, measuring about 7 cm × 4 cm in size, firm to hard in consistency, non-mobile and non-tender. Margin of the swelling was irregular and the surface was smooth. Overlying skin was intact with no redness or discharging tract or ulceration. Review of other systems was completely normal. His ESR was 125 mm in 1st hour and other blood investigations were within normal limits. His chest radiography and USG of whole abdomen were normal. CT scan of abdomen, pelvis, chest, brain and positron emission tomography (PET) scan were not done due to financial constraints. Complete excision of the swelling was done under subarachnoid block and tissue was sent for histopathology. Paraffin sections stained with hematoxylin-eosin showed anaplastic cells arranged in clusters and singly with large hyperchromatic nuclei and abundant cytoplasm filled with melanin pigment. Many melanophages and lymphocytes were also seen in the background. All these features were consistent with the features of malignant melanoma. Remaining lymph nodes were managed with radiotherapy. Thorough physical examinations were performed repeatedly to look for a possible primary site. Genital examination and digital rectal examination (DRE) did not show any evidence of primary lesion. Patient was referred to an oncologist for further treatment.

Discussion

Since malignant melanoma is a rare disease in Bangladesh its diagnosis may be delayed or missed. Our case represents an example of malignant melanoma with unknown primary. About 2–3% of all melanoma patients present with metastasis without detectable primary tumor.⁷ Although the true etiology of MUP is unknown, several explanations have been suggested and include: (i) a concurrent unrecognized melanoma (ii) previously excised melanoma that was misdiagnosed clinically or pathologically (iii) an antecedent unrecognized spontaneously regressed primary melanoma and (iv) the malignant transformation of an aberrant melanocyte within the lymph node.⁸

Benign nevus cells are commonly found in lymph nodes and other tissues and melanoma may arise from nevus cells in lymph nodes.⁹ Metastatic melanoma

should be considered in the differential diagnoses in all patients who present with a malignancy of unknown origin when lymph nodes are the primary presenting sites.¹⁰ FNAC or core biopsy of lymph node lesion is usually adequate for tissue diagnosis.¹⁰

Work up of MUP should include full skin evaluation, brain imaging (CT or MRI), CT scan of chest, abdomen and pelvis to rule out distant metastatic disease. Additional recommendation includes otorhinolaryngological examinations to exclude head and neck metastasis and proctoscopy and gynecologic examinations for patients with inguinal lymph node metastasis. Ophthalmologic examinations should be reserved for patients who have MUP with visceral metastases, primarily of the liver.⁵

In our case full skin examination was done thoroughly. Surgery is the treatment of choice for localized cutaneous melanoma.¹¹ Other treatment modalities are immunotherapy, chemotherapy, and radiotherapy. These may improve survival in more advanced disease.^{1,12,13} Multiple traditional cytotoxic agents including dacarbazine, vincristine, cisplatin and bleomycin have been evaluated in the treatment of melanoma.¹⁴ Malignant melanoma is reported to be increasing in the whites, Africans and in other population.^{15,16} The sun and ultraviolet light, history of affected family members, poor immune function and genetic defects like xeroderma pigmentosum are known factors in the development of malignant melanoma.¹ Features that affect prognosis are tumor thickness in mm (Breslow's depth), depth related to skin structures (Clerk level), ulceration and presence of regional or distant metastasis.¹⁷ MUP (melanoma of unknown primary) patient had a considerably better prognosis compared to initially metastasized patients with known primary tumor.¹⁸ A localized disease has better survival expectancy than those with disseminated disease, younger patients have a better prognosis than older ones and women have a higher relative survival rate than men.¹⁹

Conclusion

The most accepted treatment of malignant melanoma of inguinal lymph node is surgery and postoperative radiotherapy. The incidence of malignant melanoma is increasing worldwide. It is a serious disease with bad prognosis if diagnosis is missed. Early detection and treatment give a better chance of survival. A high index

of suspicion, extensive sampling to look for melanin pigment and appropriate immunohistochemistry are the keys to accurate diagnosis. Since the survival and prognosis depend on early diagnosis, the need for general public education and increased doctor awareness of the clinical pictures of the disease are vital for the prevention and treatment of this deadly cancer. In our case, complete excision followed by radiotherapy was a tolerable treatment.

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