Cutaneous metastasis from sino-nasal malignant melanoma – a rare case report

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Abstract

To report a case of disseminated cutaneous metastasis from malignant melanoma of sino-nasal region. A 53-year-old man from rural parts of West Bengal presented with progressive nasal obstruction. CT scanning was done to know the extent of the mass and punch biopsy from the mass was performed. Malignant melanoma of sino-nasal region was diagnosed and chemotherapy was started. The patient developed cutaneous deposits after two cycles of chemotherapy. The patient developed cutaneous deposits during the course of chemotherapy. Excision biopsy from cutaneous deposits revealed malignant melanoma. A rare case of diffuse cutaneous metastasis of malignant melanoma is presented here along with review of literature.

Keywords Malignant melanoma · Cutaneous metastasis · Chemotherapy

Introduction

Carcinomas of the nasal cavity and paranasal sinuses account for 1% of all human malignancies and 3% of malignant lesions that involve the upper aero-digestive tract [1]. Malignant melanomas comprise only 1% of nasal & paranasal sinus cancers and 5% of all head & neck tumours. Sino-nasal malignant melanoma behaves quite differently than their cutaneous counterpart and is more aggressive in nature. Because of the aggressive nature and progressive decline in survival with time, Harwood had suggested that mucosal melanoma is not being considered a curable disease. Advanced local disease is a frequent occurrence and frequency of regional lymphatic metastasis varies from 18 to 37.8% [2]. Distant metastasis are less frequent and tend to involve the lung, liver, kidney or bone [3]. Very rare sites of metastasis are heart, liver, lung, kidney, skin, brain and adrenal glands [4–5].

Case report

Mr. SK, a 53-year-old male patient presented with right-sided progressive nasal obstruction for 2-year duration. In the last one year, he developed external nasal deformity and right-sided facial swelling (Fig. 1). Intranasal examination revealed right-sided nasal mass, which pushed and destroyed the nasal septum completely to occupy the left nasal cavity. Probe test showed the mass bleeds on touch. CT scan of para nasal air sinuses revealed a huge lobulated expansile heterogeneously enhancing soft tissue mass in nasal cavity. The mass destroyed the alveolar margin in the midline. Extension was noted in right maxillary antrum, right frontal and ethmoidal sinuses (Fig. 2). Punch biopsy revealed malignant melanoma (Fig. 3). Patient was subjected to Chemotherapy consisting of Dacarbazine and immunoglobulin. But during second course of chemotherapy, he developed multiple subcutaneous nodules through out the body (Fig. 4). Biopsy from the subcutaneous nodule revealed similar histological feature of malignant melanoma.

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Discussion

Cutaneous metastases from carcinoma are relatively uncommon in clinical practice, but they are very important to recognize. Cutaneous metastasis may herald the diagnosis of internal malignancy. The recognition of cutaneous metastases often dramatically alters therapeutic plans, especially when metastases signify persistence of cancer originally thought to be cured. The frequency of cutaneous metastasis from internal malignancies varies from 0.7% to 9% of all cancer patients [6]. Cutaneous metastasis from head and neck malignancy is a rare event and common sites of distant metastases in head and neck cancers are lung (70–75%), liver (17–38%) and bone (23–44%) [7].

Cutaneous metastasis usually occurs in adult malignancy and rarely found in children. Rhabdomyosarcoma, leukemia, and neuroblastoma are the most frequent causes of skin metastases in children. In men older than 40 years, the most common sources of cutaneous metastases (in decreasing order of frequency) are lung cancer, colon cancer, squamous cell carcinoma in the oral cavity, and melanoma.

In most instances, skin metastasis usually develops after the initial presentation of primary malignancy. Simultaneous or prior presentations of skin metastases are rare and occasionally found in cases of bronchogenic carcinoma or renal cell carcinoma. In the present case, skin metastasis developed during the therapy.

Fig. 1 Clinical Photograph showing nasal mass with external nasal deformity

Fig. 2 CT Scan (Axial cut) showing bilateral nasal mass with mass in Right maxillary sinus

Most cutaneous metastases occur in a body region near the primary tumour. Most common sites of skin metastasis from head and neck malignancy are neck, scalp and over the chest wall that is near to primary site [9]. In our case there was disseminated metastasis throughout the chest wall, abdominal wall, back, pelvic region.

The most common presentation of cutaneous metastases is nodules. The nodules are often painless, round or

Fig. 3 Histological picture showing features of malignant melanoma (400X, H&E Stain)

Fig. 4 Clinical photograph showing multiple skin metastasis

oval, firm, mobile, and rubbery in texture. The nodules are usually fleshy red in colour, although they may be of other colours (e.g., from flesh coloured to brown or blue-black). Metastases of melanoma may simulate blue nevi and may be epidermotropic or simulate primary cutaneous melanoma. In this case, cutaneous metastasis were round, mobile, discrete mass present all over the chest wall, back and pelvic region. Some nodules turned into fungating mass during the course of chemotherapy.

There are three possible mechanisms of cutaneous metastasis from a primary malignancy as outlined by Kamucha and Troxel [8], namely direct spread, local spread and distant spread. Skin metastasis thought to involve haematogenous spread where pulmonary circulation and filtra-

tion can be theoretically bypassed via the azygous venous and vertebral venous system via Batson's plexus, allowing skin implantation. Diagnosis of skin metastases is usually clinical, however, histological proofs are mandatory to confirm the diagnosis. In most instances, the histologic features of the metastases are similar to the primary tumour, although metastases may be more anaplastic and exhibit less differentiation. In the present case also, biopsy from the mass in the nasal cavity and the subcutaneous skin nodule showed similar histological features of malignant melanoma.

Though it is general assumption that skin metastasis indicates poor prognosis for the patient, information is lacking regarding the survival and the proper treatment of this group of patients. Berger et al [9], in their study reported that length of survival was approximately 3 months after skin metastasis become clinically evident in head and neck cancer. In this present case, the patient is still surviving with subcutaneous nodule for last 10 months.

The treatment of skin metastasis is inconclusive. Being the metastatic nature of disease, the treatment of these patients is, in general, palliative. Options available are surgical excision, chemotherapy, external beam radiotherapy, or combination of these. Surgical excision has been shown to increase survival time [10], being other forms of treatment are usually ineffective. In the present case surgical treatment was not attempted due to the dissemination of metastasis.

Conclusion- Skin metastasis in head and neck malignancy denotes advanced disease and is a poor prognostic indicator. Survival rate drops down significantly with the appearance of skin metastasis.

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