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Case Report

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Sino nasal melanoma of nasal cavity: a case report

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ABSTRACT

Sino-nasal melanoma is a rare, recurrent aggressive tumour among head and neck cancers. Nasal obstruction and recurrent, painless epistaxis are commonly reported symptoms seen in old aged individuals. The symptoms are non-specific and tend to delay the diagnosis resulting in poor prognosis. We report 80 year old male patient who presented with recurrent, painless epistaxis from the left nasal cavity with nasal obstruction. Anterior rhinoscopic examination revealed bluish black proliferative bleeding mass completely filling left nasal cavity. Contrast enhanced computed tomography showed a polypoidal soft tissue attenuation with heterogeneous enhancement completely filling left nasal cavity. Patient underwent endoscopic excision. Histopathology of specimen showed small round blue cell tumour, suggestive of sino nasal melanoma. S100 and HMB 45 were found to be positive on immunohistochemistry. Patient was then subjected to chemoradiation. No evidence of recurrence till date.

Keywords: Sino nasal melanoma, Melanin, Hemosiderin, Blue cell tumour

INTRODUCTION

Melanomas arise from melanocytes, may be located in the skin basal layers or in the mucosal region. Head and neck region is the most common primary area for mucosal melanomas with 55.4% incidence.[1] Nasal cavity is affected more commonly than the para-nasal sinuses and most frequently seen between the fifth and the eighth decade with poor and unpredictable prognosis.[2] Early diagnosis and radical surgical management offer the hope for cure of the disease. One-third of cases have focal, weak pigmentation or are non-pigmented and for amelanotic tumours immunohistochemistry is investigation of choice for the diagnosis.[3]

METHODS

This is case report of a 80 year old male patient, who presented with recurrent, painless epistaxis from the left nasal cavity with nasal obstruction since 4 months. Anterior rhinoscopic examination showed a bluish black proliferative bleeding mass completely filling the left nasal cavity (Figure 1). Posterior rhinoscopic examination was unremarkable.

Diagnostic nasal endoscopy showed bluish black proliferative bleeding mass completely filling the left nasal cavity. However there was no regional metastasis and no evidence of orbital or intracranial involvement. Inverted papiloma of nose, Malignancy of nose and para nasal sinuses and Sino nasal melanoma were considered among differential diagnosis.

Contrast enhanced computed tomography of the nose and paranasal sinuses showed polypoidal soft tissue attenuation with heterogeneous enhancement completely filling the left nasal cavity (Figure 2).

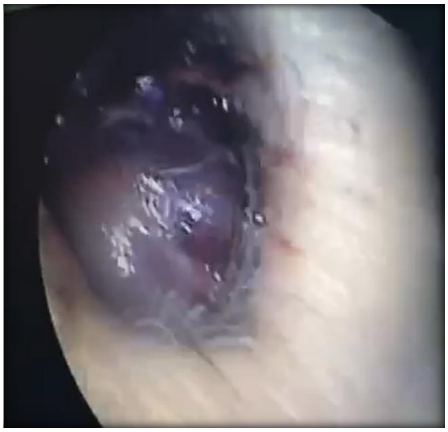

Figure 1: Anterior rhinoscopic examination showing bluish black proliferative bleeding mass filling the left nasal cavity.

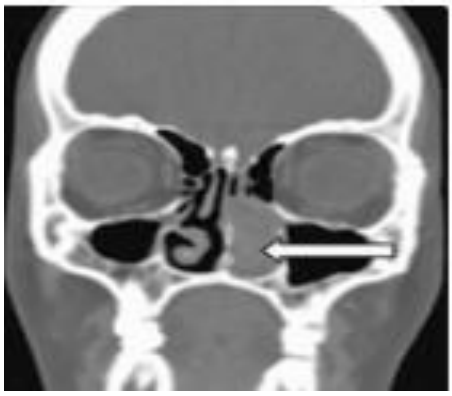

Figure 2: CECT of nose and paranasal sinuses- polypoidal soft tissue attenuation with heterogeneous enhancement filling the left nasal cavity.

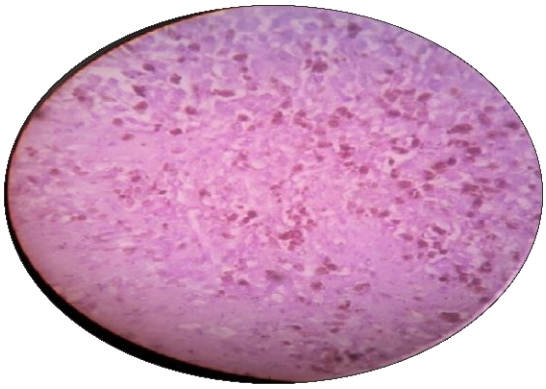

Figure 3: HPE of biopsy showing fibro-collagenous tissue displaying large areas of necrosis, edema and melanin/ hemosiderin pigment.

Biopsy of the nasal mass was done under general anaesthesia. Histopathological examination showed– fibro-collagenous tissue displaying large areas of necrosis, edema and melanin/ hemosiderin pigment (Figure 3).

Patient underwent endoscopic excision under general anaesthesia with intra-operative findings showed friable, sessile, proliferative mass arising from left lateral wall of nose. Haemostasis was achieved. Procedure was uneventful. Patient was discharged after 5 days of hospitalisation. Histopathology of specimen revealed a malignant tumour composed of sheets of tumour cells which are round to oval with scant cytoplasm and regular round hyperchromatic nuclei, melanin pigment was seen at places suggestive of small round blue cell tumour, variant of sino nasal melanoma (Figure 4). Patient was investigated for immunohistochemistry and was found to be positive for S100 and HMB 45.

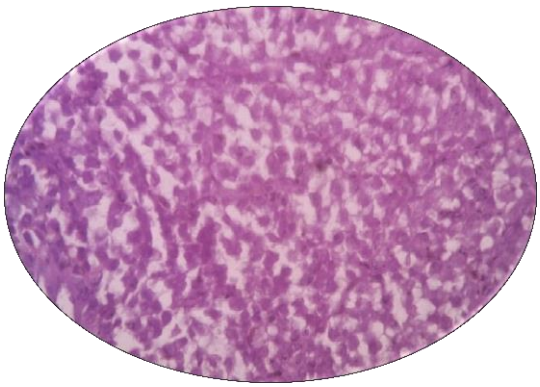

Figure 4: Histopathology of excised specimen showed a malignant tumour composed of sheets of tumour cells which are round to oval with scant cytoplasm and regular round hyperchromatic nuclei, melanin pigment was seen at places.

Further patient was subjected to chemotherapy three doses of inj. cisplatin with 60 Gy of adjuvant radiotherapy. Patient tolerated the treatment well. Patient has been on regular follow-up and is asymptomatic with no recurrence or regional metastasis till date.

DISCUSSION

Melanomas of the head and neck are rare comprise of 0.4% to 1.8% of all malignant melanomas.[1] Melanocytes are seen in mucosal and cutaneous surfaces. They are present in superficial and deep stroma of the septum and turbinates, glands of nasal mucosa, nasal mucosa, and also common in the supporting cells of the olfactory epithelium.[2]

Most frequent sites for melanoma are nasal septum (anterior portion) followed by lateral wall of nasal cavity.[4] Most patients present with symptoms of epistaxis, nasal obstruction or both. Nasal melanomas tend to be large, friable masses which bleed on touch.[5] It is very difficult to distinguish between nasal melanoma and benign polyposis, as melanomas project into the involved nasal cavity and may show polypoidal configuration.[4]

The consistency of tumour has been described as firm or friable. These tumours usually grow in nests or sheets of polygonal cells of variable sizes. In a few cases, spindle cells predominate and the amount of melanin pigment varies accordingly.[6]

TNM staging in cases of sinonasal melanoma (AJCC 8th edition)[7]

Primary tumour (T)

T3: Disease restricted to the mucosa.
T4a: Disease moderately advanced: tumour deeply involving soft tissue, cartilage, bone, or overlying skin.
T4b: Very advanced disease: Tumour involving brain, dura mater, skull base, cranial nerves (IX, X, XI, and XII), masticator space, carotid artery, prevertebral space, or the mediastinal structure.

Regional lymph nodes (N)

Nx: Regional lymph nodes cannot be evaluated.
N0: No evidence of regional nodal metastases.
N1: Presence of regional nodal metastases.

Distant metastases (M)

M0: No distant metastases.
M1: Distant metastases.

Malignant melanoma is marked by local extension, local recurrence and frequent metastasis to lymph nodes, skeletal muscles and skin.[8] Microscopic features resemble lymphomas, sarcomas, and undifferentiated carcinomas. Hence immunohistochemical studies are required to reach the diagnosis. Fludeoxyglucose (FDG) positron emission tomography (PET) scan provides a more comprehensive whole-body assessment as compared to the conventional cross-sectional imaging since PET scan has better capability of detecting nodal, regional and distant metastasis.[9]

Mucosal melanomas are of the superficial nodular, lentiginous or types.[10,11] They consist of large epithelioid or fusiform cells with abundant eosinophilic cytoplasm. Markers for melanoma include S-100 protein, HMB-45, microphthalmia melanin-A associated transcription factor, tyrosinase, melanin A, vimentin, and melanin-A. S-100 is not always positive present so we must investigate for other markers also for diagnosis.

Different modalities including surgery, irradiation, irradiation with surgery or surgery with irradiation and chemotherapy are available for management of mucosal melanoma of the nose and paranasal sinuses. Surgical techniques are available depending on the extent of the lesion like maxillectomy, lateral rhinotomy, endoscopic resection or craniofacial resection. Primary goal is to obtain a free margin.[12]

Prognosis of disease depends on obstructive symptoms, advanced age, tumour size, vascular invasion, location, high mitotic count, marked cellular pleomorphism and regional and distant metastasis.[13]

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