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## *Case Report*

# Mucosal malignant melanoma of nasal cavity presenting in a young male

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**Abstract:**

*Introduction: Mucosal malignant melanoma (MMM) in nose is a rare tumour with an incidence of only 0.67% of all malignant melanomas. It presents more commonly in older age from 5th to 8th decades. Curiously though, in our case, the melanoma presented in a young male with symptoms like a polyp.*

*Case presentation: A 36-year-old male East Indian farmer presented with occasional bleeding from left nasal cavity with nasal obstruction for the last one year with a painless greyish fleshy mass in the left nasal cavity from the past two months. It was initially misdiagnosed as antrochoanal polyp. Endoscopic excision biopsy revealed malignant melanoma. A radical repeat surgical approach was undertaken followed by radiotherapy. Patient is symptom free 6 months following radiotherapy.*

*Conclusion: A high degree of suspicion is necessary to diagnose a malignant melanoma in nasal cavity. It needs a radical curative approach if there is no distant metastasis.*

***Key Words:*** *Mucosa; Melanoma; Nose.*

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## Introduction:

Mucosal malignant melanoma in nose is a variant of neural crest cell tumour.[1] Amelanotic mucosal melanomas occur frequently, thus any lesion in nasal cavity, pigmented or not, is suspicious.[2] Clarkes' classification of cutaneous melanomas does not apply to MMM, as no similar landmarks like papillary or reticular dermis exist in mucosa.

A clinically evident MMM in nose is locally invasive and distant metastasis is frequent though cervical lymph node metastasis occur late.[3]

## Case presentation:

A 36-year-old farmer presented in Otolaryngology clinic with occasional bleeding from left nasal cavity with nasal

obstruction for the last one year. There was a greyish fleshy mass in the left nasal cavity from the past two months. There was no history of pain, headache or neck swelling.

On examination, there was single, firm, sessile, globular, greyish mass, about 1cm in diameter filling left nostril, taking origin from the lateral wall. The mass did not bleed on touch.[figure-1]

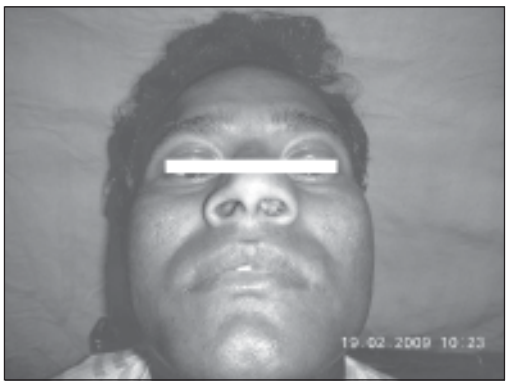


**Figure-1:** *Clinical photograph of the patient.*

On examination, there was single, firm, sessile, globular, greyish mass, about 1cm in diameter filling left nostril. It took origin from lateral wall. It didn't bleed on probing.

CT scan of the nose and paranasal sinuses revealed a homogenous hyper-dense mass, occupying the left nasal cavity. There was no involvement of maxillary sinus of same side and no evidence of bone destruction [Figure-2]. A provisional diagnosis of nasal polypoid mass was made.

The patient was subjected to nasal endoscopy and excision biopsy of the mass was taken under local anaesthesia. It was found that the mass was arising from the middle meatus. The excised specimen was sent for histopathology.

On histopathological examination of the mass, highly atypical cells were seen in a nesting pattern with prominent nucleoli. Focal

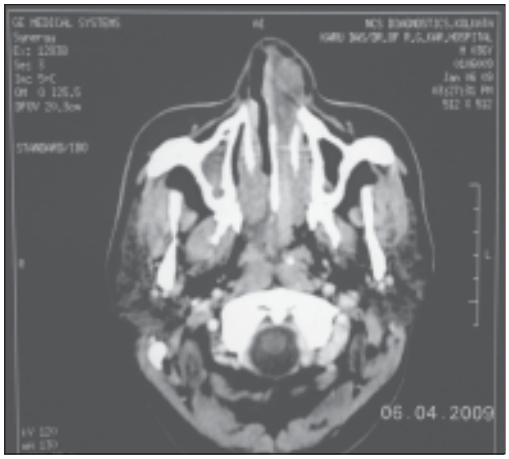


**Figure-2:** *CT scan of the lesion.*

CT scan of the nose and paranasal sinuses revealed a homogenous hyper-dense mass, occupying the left nasal cavity. There was no involvement of maxillary sinus of same side and no evidence of bone destruction.

melanin pigment production was detected. So the final diagnosis was malignant melanoma of nasal mucosa [Figure-3].

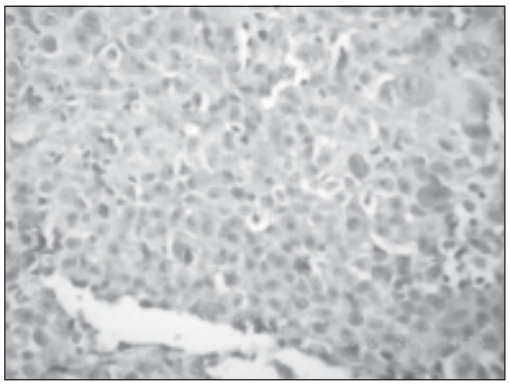

**Figure-3:** *Histopathological picture.*

With haematoxylin-eosin stain, in higher magnification (100x), highly atypical cells were seen in a nesting pattern with prominent nucleoli. Focal melanin pigment production was detected. So the final diagnosis was malignant melanoma of nasal mucosa.

CT scan of the brain and abdomen, chest Xray and USG abdomen was done, but no metastatic deposits were detected.

A radical curative approach was undertaken. An inferomedial maxillectomy was done followed by radiation. EBRT was delivered by Co60 with 3D CT based planning to a dose of 48 Gy delivered in 20 fractions with 2.4 Gy per fraction over 4 weeks, 5 days a week.

Patient is under follow up for last 6 months and there is no recurrence or residual disease.

**Discussion:**

Only 1.3% of malignant melanomas are mucosal, of which 55.4% are in head and neck.[4] Nasal MMM has an incidence of 0.67%.[5] India has 2-3 times more incidence than Europe and White Americans.[6]

The Sino-nasal melanoma may present with nasal obstruction, epistaxis, nasal mass etc mimicking polyp or tumour. So, clinical examination is not very helpful in diagnosis. MMM occurs at an older age ($5^{th}$-$8^{th}$ decade) making our case a unique one. Males are more commonly affected.[7]

MMM is a far more aggressive disease than cutaneous melanomas with most of tumours reaching dangerous limits in terms of depth of invasion, tumour thickness and ulceration, which are most important factors in prognosis. Most malignant melanomas of mucosa occur without any precursor lesion and most important sites are middle and inferior turbinates and anterior nasal septum.[8] A clinically evident MMM in nose is locally invasive and distant metastasis is frequent though cervical lymph node metastasis occurs late.[3]

Diagnosis requires a high degree of suspicion. Imaging i.e. CT scan and incisional biopsy is first step. Though there is a definite histological pattern but as amelanotic melanomas are very common in mucosal variety, immunohistochemistry, particularly with HMB45 and S100 proteins, is gaining importance day by day.

Curative treatment requires resection of tumour and adjuvant therapy. Hence to assess more accurately the anatomical extent, an MRI is useful. CT scan lung, liver, brain and isotope bone scan are indicated to exclude metastasis.[2]

There is no universally accepted staging system for malignant melanoma of mucosa, though the staging of Palatine is accepted in many places.[9]

Treatment in non metastasising tumours consists of radical excision of the primary tumour with or without post operative radiotherapy. This therapy, though curative, involves aesthetic and functional deficit. Other therapies, with different indications and benefits, consist of chemotherapy regimens containing DTIC (dimethyl triazeno imidazole carboxamide) and Interferon therapy along with cimetidine (H2 receptor antagonist). More recent treatment strategies, currently in the research stage are vaccination with peptide pulsed dendritic cell based vaccine and boron neutron capture therapy.[2]

The 5-year survival is in the region of 0–30% in the absence of metastasis.[10]

**Conclusion:**

A high degree of suspicion is necessary to diagnose a rare tumour like MMM and the surgeon must keep in mind that in these cases, an absence of melanin in tissues does not exclude MMM. Furthermore, a negative cervical node does not exclude distant metastasis, having more sinister significance in the prognosis of the case.

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