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**Case Report**

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# Sinonasal malignant melanoma: a case report

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## ABSTRACT

Primary sinonasal malignant melanoma (SNMM) is a rare aggressive neoplasm of mucosal melanoma. It is more commonly affect adult with late presentation. Here, we report a case of SNMM in a 56-year-old lady who presented with worsening left sided nasal blockage in 1-month duration associated with black pigmented mass in nasal cavity, epistaxis and diplopia. Computerized tomographic scan showed sinonasal mass with orbital involvement and tissue biopsy confirmed the diagnosis. Surgery was performed to remove the tumour and patient had recovered well with no sign of recurrence.

**Keywords:** Mucosal melanoma, Sinonasal tumour, Unilateral nasal tumour, Malignant melanoma

## INTRODUCTION

Malignant melanoma usually involves the skin with only about 1% of cases involves sinonasal mucous membrane.[1] Patient tend to present late in the course of disease because the tumor is concealed within spacious paranasal sinuses. Early symptoms may mimic rhinosinusitis, however, persistent and unilaterality of the symptoms should warrant further investigations. Tissue biopsy is needed to confirm the diagnosis and computed tomographic (CT) scan assessed the staging of the disease as well as operability.[2] In this report, we present a typical case of sinonasal malignant melanoma which was treated surgically followed by post-operative radiotherapy.

## CASE REPORT

A 56 year-old lady presented with complaint of pain and swelling on the left side of nose for 1 month duration. She reported progressive ipsilateral nasal blockage associated with sporadic episodes of epistaxis, anosmia and epiphora. On examination, there was swelling on the left side of the nose pushing the nasal vestibule laterally. The left nostril was completely blocked with a black crusted mass. The right nostril appeared narrow as the septum slightly pushed to the opposite site. Nevertheless, the mucosa of the right nasal cavity appeared normal.

Nasoendoscopy examination showed mass in the left side of nasopharynx arising from ipsilateral nasal cavity. There was proptosis of the left eye with limited left eye movement toward lateral gaze and patient experienced diplopia upon looking on this side. Oral cavity was normal with no breach of mucosa. There was no cervical, axillary and inguinal lymph node palpable. Examination of the skin over the head and neck as well as other body areas showed no sign of abnormal pigmented lesion. There was no abnormality detected from respiratory and abdominal examination.

CT scan of paranasal sinuses revealed large mass in the left maxillary antrum eroding its bony wall and invaded adjacent areas including nasal cavity, nasopharynx, orbit and malar soft tissue. The lesion had eroded and causing deviated nasal septum and obstructed airway. The biopsy revealed malignant melanoma.

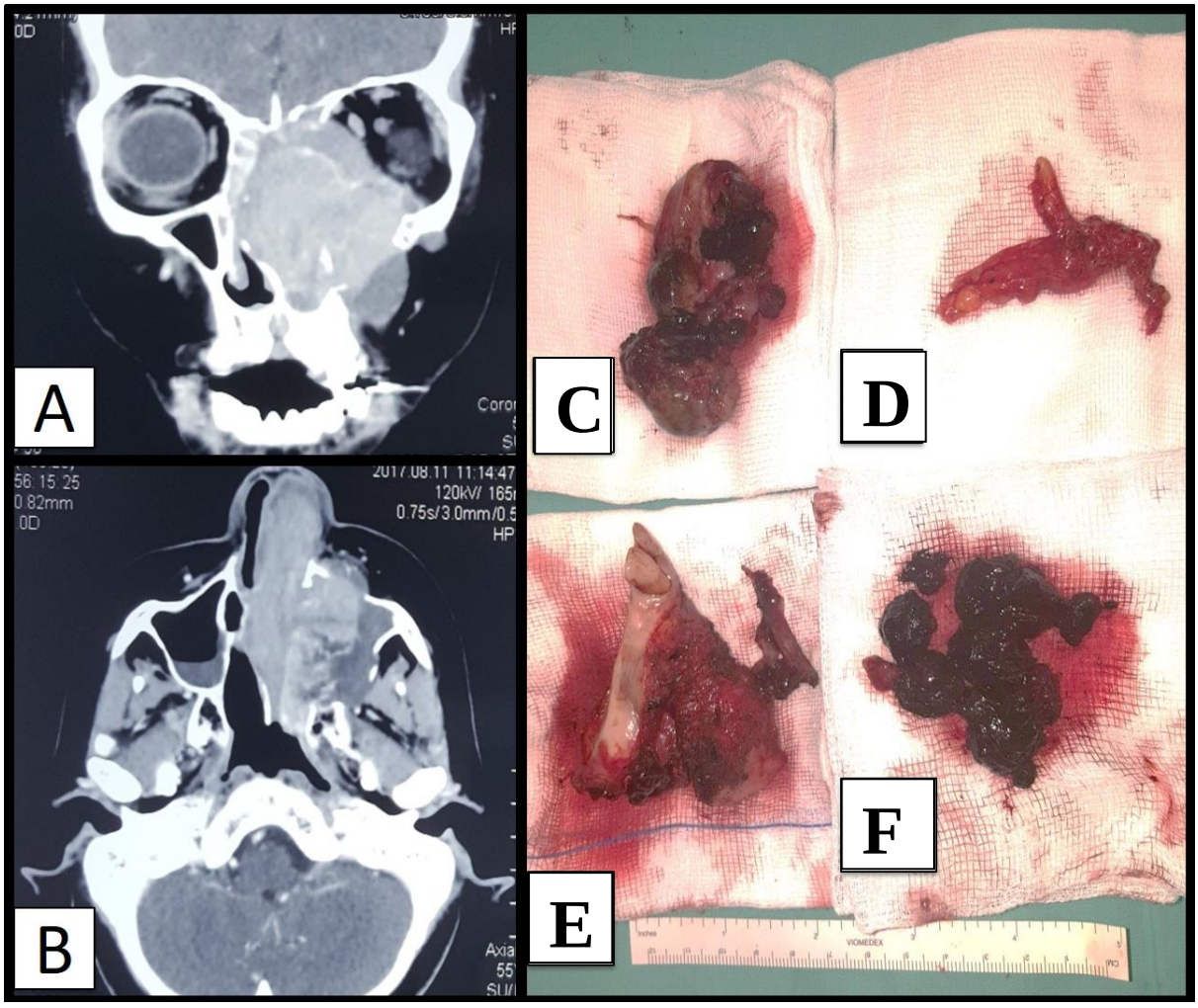


**Figure 1: (A) Coronal view; (B) Axial view: Computed tomographic scan of paranasal sinuses. Presence of voluminous mass from left maxillary antrum with erosion of anterior wall of maxillary sinus (axial view). The mass pushed the septum to the right side and appeared to involve left orbit (coronal view). Intraoperative findings showed (C) Intranasal mass; (D) Buccal mucosa; (E) Left maxillary bone with mass; (F) Intramaxillary mass; there was black pigmented mass in the maxillary sinus (F) and nasal cavity (C) with erosion of anterior wall of maxillary bone (E).**

Tumour staging was T4aN0M0 (stage IVa) from CT scan staging. She went for surgery which involved left side total maxillectomy with left side orbital exanteration and split skin graft from left thigh with buccal flap. Intraoperatively, the tumour had occupied the whole left nasal cavity and extended superiorly to frontal sinus and cribiform plate. Inferiorly, the floor of nose and hard palate was thinned out. The anterior wall of maxilla was eroded by the tumour. Post-operative period was uneventful and patient was allowed home on postoperative day 4.

## DISCUSSION

Malignant melanoma is a neoplasm arising from melanocyte that resides under the surface epithelium. It most commonly involves the skin with about 1- 2% of cases, arising from mucous membrane.[1] 55% of mucosal malignant melanoma is located in the head and neck area.[3] The most common sites are the lateral nasal wall (inferior and middle turbinates) followed by the nasal septum.[2] The tumour arises from melanocyte, a type of dendritic cells originating in the neural tube and located at the dermo-epidermal junction of all mucous membranes.[2]

It commonly occurs in adult between ages 40 to 70 years old with the median age of 60 years.[3] There is slight female preponderance from the data collected in United States and commonly affect Caucasian.[4]

In this case, our patient is a female at her mid-50s when she presented with progressively worsening unilateral nasal obstruction associated with epistaxis. The tumour appeared as black-brownish pigmented mass arising from nasal cavity. The nasal mass had developed rapidly

within 1 month duration. Because of its lack of visibility and absence of symptom during early stages, the diagnosis is often delayed.[1] By the time patient presented to us, the tumour had occupied her paranasal sinus and protruded out from the nostril. As the disease advanced, it locally invaded the surrounding structure including orbit, intracranial cavity, nasopharynx and oral cavity. In this case, there was left orbital involvement and patient had diplopia and exophthalmos.

Tissue biopsy is required to confirm the diagnosis. Histological examination is difficult due to marked cytological and architectural polymorphism.[2] Further immunological staining with HMB45 and MelanA confirm the diagnosis of malignant melanoma.[2] Once diagnosis is secured, staging of the disease is established by CT scan. AJCC-TNM classification for the mucosal melanoma of the head and neck is used to stage the patient.

Treatment options include surgery and non-surgical approach including radiotherapy and chemotherapy or immunological therapy. Mitchell et al conducted a largest meta-analysis of patient with primary sinonasal malignant melanoma.[5] They found out that there is no survival advantage for combined radiotherapy with surgery or chemoradiotherapy with surgery versus surgery alone. However they did find a significant overall survival advantage for surgery with chemotherapy versus surgery alone and versus chemotherapy alone.[5] As in this case, the patient had underwent left total maxillectomy with left orbital exantheration. Post operatively, she was arranged for radiotherapy for local disease controlled.

## CONCLUSION

In conclusion, sinonasal mucosal malignant melanoma, although rare, should be included in the diagnosis in patient presented with pigmented nasal mass. Tissue biopsy, specifically, immunological staining confirms the diagnosis. Treatment modalities include surgery and post-operative radiotherapy for local disease control or chemotherapy in advance cases.

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