

# Primary Malignant Melanoma of Maxillar Sinus

Murat Karaman<sup>1</sup>, Çağatay Oysu<sup>2</sup>, Arman Tek<sup>3</sup>, Ömer Bilaç<sup>4</sup>

<sup>1</sup>Uzm. Dr., <sup>2</sup>Doç. Dr., Ümraniye Eğitim ve Araştırma Hastanesi, KBB Kliniği, İstanbul

<sup>3</sup>Dr., Haydarpaşa Numune Eğitim ve Araştırma Hastanesi, KBB Kliniği, İstanbul

<sup>4</sup>Uzm. Dr., Viranşehir Devlet Hastanesi, Şanlıurfa

## ÖZET

Maksiller sinüsün primer malign melanoması

Burun ve paranasal sinüs yerleşimli malign melanomların histolojik tanısı zor konulur ve çok nadir olarak görülür. Nazal kavite kitlesi oluşturan nedenlerden biri olarak akılda tutulması gereken bu tümörün tedaviye rağmen prognozu oldukça kötüdür. Nazal ve paranasal sinüs yerleşimdeki kitle biyopsileri histopatolojik olarak dikkatle değerlendirilmelidir. Bu makalede Haydarpaşa Numune Eğitim ve Araştırma Hastanesi'nde takip edilmiş maksiller sinüs yerleşimli malign melanom olgusu literatür bilgileri ışığında tartışıldı.

**Anahtar kelimeler:** Malign melanom, paranasal sinüs, mukozal

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## ABSTRACT

Primary malignant melanoma of maxillar sinus

Malign melanomas which were placed in nose and paranasal sinuses are very rare and histological diagnosis of them was difficult. Unpredictable course of these tumors must be in mind as a reason of nasal cavity mass. These tumors have a poor prognosis inspite of the treatment. The biopsies of this region should be taken into consideration in histopathological examination carefully. In this study, a case of primary malignant melanoma of the maxillar sinus which were followed in Haydarpaşa Numune Hospital was discussed with the knowledge of literature.

**Key words:** Malignant melanoma, paranasal sinus, mucosal

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## INTRODUCTION

Malign melanomas are divided in two according to their origin as cutaneous and mucosal melanomas and very rarely seen in upper respiratory airways. Mucosal melanomas which are usually seen in nasal cavity and paranasal sinuses constitutes %2 to 3 of all melanomas (1). They are rarely seen in oral cavity (2). Mucosal melanomas have worsen prognosis than cutaneous melanomas and have tendency to disseminate through lymphatic and vascular system to the body (3).

Chandhry, Batsakis, Ravid and Esteves (4,5) reported primary malignant melanomas in wide series of studies but usually single case report studies are published in Turkey (6).

Yazışma adresi / Address reprint requests to: Murat Karaman  
Ümraniye Eğitim ve Araştırma Hastanesi, KBB Kliniği,  
Ümraniye, İstanbul-Turkey

Telefon / Phone: +90-505-566-4178

Faks / Fax: +90-216-641-7101

Elektronik posta adresi / E-mail address:  
karaman1398@yahoo.com

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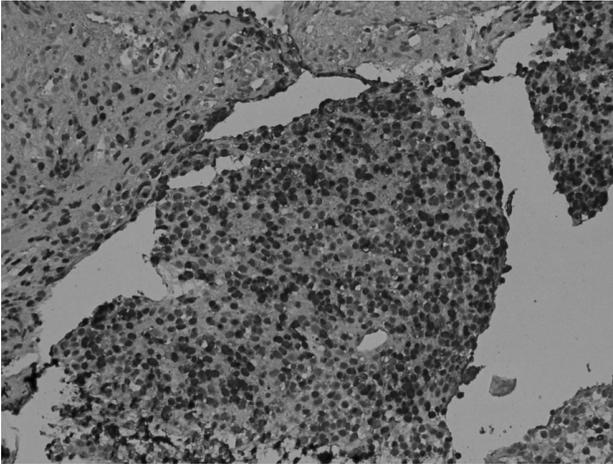
## CASE REPORT

A 63 year old female patient applied to hospital with a history of epistaxis and pain in upper teeth. The mass in the left nasal cavity is exised and pathological result showed undifferentiated carcinoma so she guided to our hospital. Magnetic resonance scan with contrast showed a mass which filled maxillary sinus and invaded maxillary sinus floor, destructed posterior wall of maxillary sinus and invaded infratemporal fossa and obliterated maxillary sinus ostium.

She was hospitalized to take a biopsy from the mass. Her physical examination revealed hemopurulent secretions in nasal cavity and the other examinations were normal. A biopsy was taken from the mass in the maxillary sinus cavity with Caldwell-Luc surgery.

Pathological results macroscopically showed dirty, white in colour and 4x2.5x1 centimetres dimensional solid mass. In microscopic examination tumor cells display lobular, trabecular and solid patterns. Tumor cells are in polygonal or oval shaped and show

obvious pleomorphism, with prominent nucleoli, composed of intranuclear inclusions and eosinophilic cytoplasm (Figure 1). There is yellow-brownish pigment in focal areas. Immunohistological staining showed weak (+) staining with S-100 (+), HM45 and synaptophysin and so high grade malignant melanoma diagnosis was established.



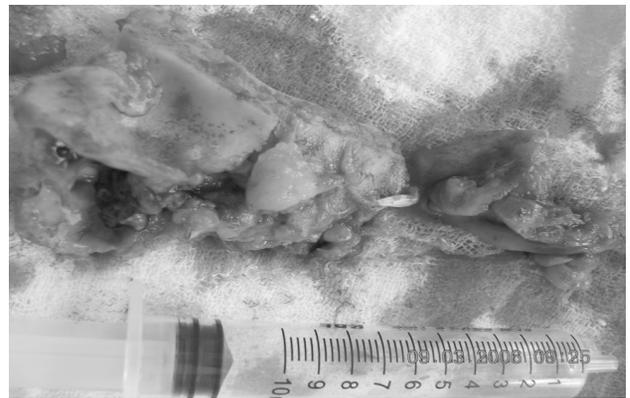
**Figure 1: The pathological findings of maxillary sinus malign melanoma: immunohistochemical examination of the tumour cells (S-100 + staining, x200)**

With these findings tumor is graded T4N0M0 (stage4) (3). Left total maxillectomy (Figure 2, the permission of this figure for publishing was taken from the patient ) is done to the patient with Weber-Ferguson incision under general anesthesia. Maxillary bone is separated from suborbital, medial and lateral borders. Midline of palate bone is cut with gige wire, maxillary bone pushed downwards and extracted



**Figure 2: Left total maxillectomy**

including nasal septum, premaxillary cret and palatine bone (Figure 3,4). Inferior and posterior border of maxillary bone is invaded with tumor and tumor is extended to pterygopalatine fossa. Pterygopalatine muscles and inferior border of orbita is intact and free of tumor. Split thickness skin graft taken from leg of patient is sutured within nasal cavity. Specimen is sent to pathology for immunohistochemical examination. Pathology result is correlated with preoperative malignant melanoma diagnosis and surgery borders were found free of tumor.



**Figure 3: The specimen of the total maxillectomy**



**Figure 4: The specimen of the total maxillectomy**

## DISCUSSION

Malignant melanomas are very aggressive tumors and follow a rapid course. For this reason early diagnosis and treatment is necessary. Mucosal melanomas constitutes %2-3 of all melanomas and there is increase in frequency following recent years

(3,7,8). Malignant melanomas usually seen after age of 50 and in males. In oral cavity they are seen palate, upper alveolar region, buccal mucosa, lower alveolar region, lips, tongue and floor of mouth respectively. They are rarely seen at nasal cavity, paranasal sinuses and larynx (2).

Tumours which are originated from inferior and middle concha and filled the nasal cavity usually has multiple focus as reported in literature (9, 10). As in our case tumor invaded left maxillary sinus, pterygopalatine fossa and septum giving the idea of multifocal extension.

Diagnosis of nasal and paranasal sinus melanomas are very difficult because half of them contains no pigment, they imitate benign lesions and they are very rarely seen (9,11). For exact diagnosis immunohistochemical examination and additional antibody studies must be done. This is why the exact diagnosis can not definitely established in prior pathologic result at another hospital and this finding support the idea of having difficulty in diagnosis. Pigmentation of tumor and immunohistochemical, antibody examinations in our hospital makes it so easily diagnosed.

Ten percent of nasal and paranasal sinus melanomas presents cervical lymph node metastasis

and has no distant metastasis at the time of diagnosis (4). Mean survival time changes 4 months to 20 years after treatment and %50 of patients die in three years and %66 of them die in 5 years. There is no absolute data about the factors that influence prognosis and it is still a topic of debate (8,11,12,). Because of the high local recurrence rate in high grade tumors (grade 3 and 4), postoperative chemotherapy and radiotherapy was given to our patient although she has no cervical lymph node metastasis, distant metastasis or cranial nerve invasion. There is no recurrence in 2 months follow-ups but she died from cardiac arrest in her first year.

## CONCLUSION

Malignant melanomas which are placed in nasal cavity and paranasal sinuses are rarely seen and histological diagnosis of them is very difficult. As a reason of nasal cavity mass, unpredictable course of these tumors must be in mind. These tumors have a poor prognosis in spite of treatment. A careful immunohistochemical examination is necessary for exact diagnosis of nasal cavity and paranasal sinus malignant melanomas.

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