

# Malignant Melanoma

## Malign Melanom

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**ABSTRACT** Malignant melanoma in oral cavity is a rare tumor with aggressive prognosis. Diagnosis may be delayed because it is asymptomatic. In this article, we reported a case of oral malignant melanoma and clinical findings in a 82-year-old male patient. There was a reddish-blue, ulcerous, bleeding and painless mass on the hard palate. This mass was formed in 3 weeks.

**Keywords:** Melanoma; neoplasms; maxilla

**ÖZET** Oral kavite yerleşimli malign melanom, nadir görülen, agresif prognoza sahip bir tümördür. Asemptomatik seyrettiği için tanı gecikebilir. Bu çalışmada, 82 yaşındaki erkek malign melanom olgusu ve klinik bulgularını sunduk. Sert damakta kırmızımsı-mavi, ülser, kanamalı ve ağrısız bir lezyon vardı. Bu lezyon 3 hafta içinde oluşmuştu.

**Anahtar Kelimeler:** Melanom; neoplaziler; maksilla

Melanoma is a malignant neoplasm of melanocytic origin, that develops from a benign melanocytic lesion or de novo from melanocytes in normal skin, mucosa and other sites.<sup>1,2</sup> It was first described by Weber in Germany in 1856-1869.<sup>3</sup> Melanoma is the third most common skin cancer. However, it constitutes only 5% of all cancers.<sup>1</sup> Mucosal melanomas constitute less than 10% of melanomas, in the head and neck region. The majority of these occur in the nasal cavities followed by oral cavity and paranasal sinuses.<sup>4</sup> The affected areas in the oral cavity are hard palate (42.2%), maxillary alveolus (32%), followed by soft palate, tongue, floor of the mouth, sinuses, pharynx, larynx and esophagus.<sup>3,4</sup>

Melanomas localized in the oral cavity are presented with painless bleeding mass, ulceration, discoloration and they can develop with ill-fitting dentures.<sup>5</sup> Oral malign melanomas are rarely seen and poor prognosed.<sup>6</sup> Mucosal melanomas are less than

25% of the five-year survival rate and behave aggressive.<sup>3</sup> They are often seen in males.<sup>1-3,7</sup> The average age of a mucosal melanoma is 50-55 years while it can be seen at 30-80 years.<sup>1,3</sup> Melanomas are asymptomatic in clinical appearance and progress quietly.<sup>3,8,9</sup> About 60% of patients are detected incidentally during routine dental examination.<sup>8</sup> This may cause late diagnose and radical treatment may be needed.<sup>3,9</sup> In early stages, pigmented and irregularly bounded, superficial lesions are seen in the skin and mucosa.<sup>2,10</sup> First, the lesions begins as small macular, non-swollen, then it expands.<sup>10</sup> These lesions are usually larger than 1 cm with an irregular shape.<sup>4,7,10</sup> It can expand whole palate.<sup>10</sup> Progressive lesions appear thicker with more swollen surface and ulceration.<sup>2,10</sup>

## CASE REPORT

A 82-year-old male patient with no systemic diseases applied the State Hospital with a rapidly growing mass on his palate in a short period (3 weeks) and he

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was referred to Cumhuriyet University Faculty of Dentistry, Oral and Maxillofacial Radiology Department. On clinical examination, a lesion was determined with a bleeding surface in the left half of the hard palate with irregularly bounded, raised, ulcerous, approximately size of 6x5 cm (Figure 1). There was no suspicious cervical lymphadenopathies noticed.

Whether the lesion had bone involvement or not, it was not clearly seen on panoramic radiographic evaluation of the patient (Figure 2).

Informed consent was obtained from the patient and he was consulted to the Department of Plastic and Reconstructive Surgery at Cumhuriyet University Medical Faculty Hospital for biopsy and definitive diagnosis. Histopathological examination of the patient who underwent incisional biopsy revealed a tumor in which the solid areas are formed by the atypical epithelioid cells where untracked surface epithelium. There was no pigment in the tumor. Clinical appearance of mass was reddish-blue due to vascularization. Immunohistochemically applied S-100 diffuse positive, Melan-A focal positive, HMB45 diffuse positive and Ki index were found to be 60%. Malignant melanoma was diagnosed (Figure 3).

Positron emission tomography (PET) images could not be reached. But according to reports obtained from the patient's son, PET scanning with 2-fluorodeoxyglucose (FDG) for metastasis was detected in the bilateral cervical lymph nodes and distant metastasis was not observed in October 2017. With these symptoms, the patient was accepted to be T<sub>3</sub>N<sub>1</sub>M<sub>0</sub>. The patient continued the treatment at Istanbul University Medical Faculty Hospital, where a tumor resection was performed and he underwent bilateral neck

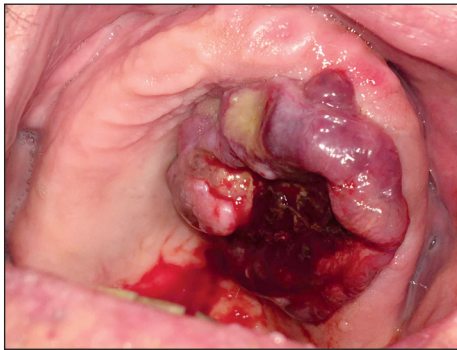


FIGURE 1: Ulcerous, bleeding lesion on hard palate.



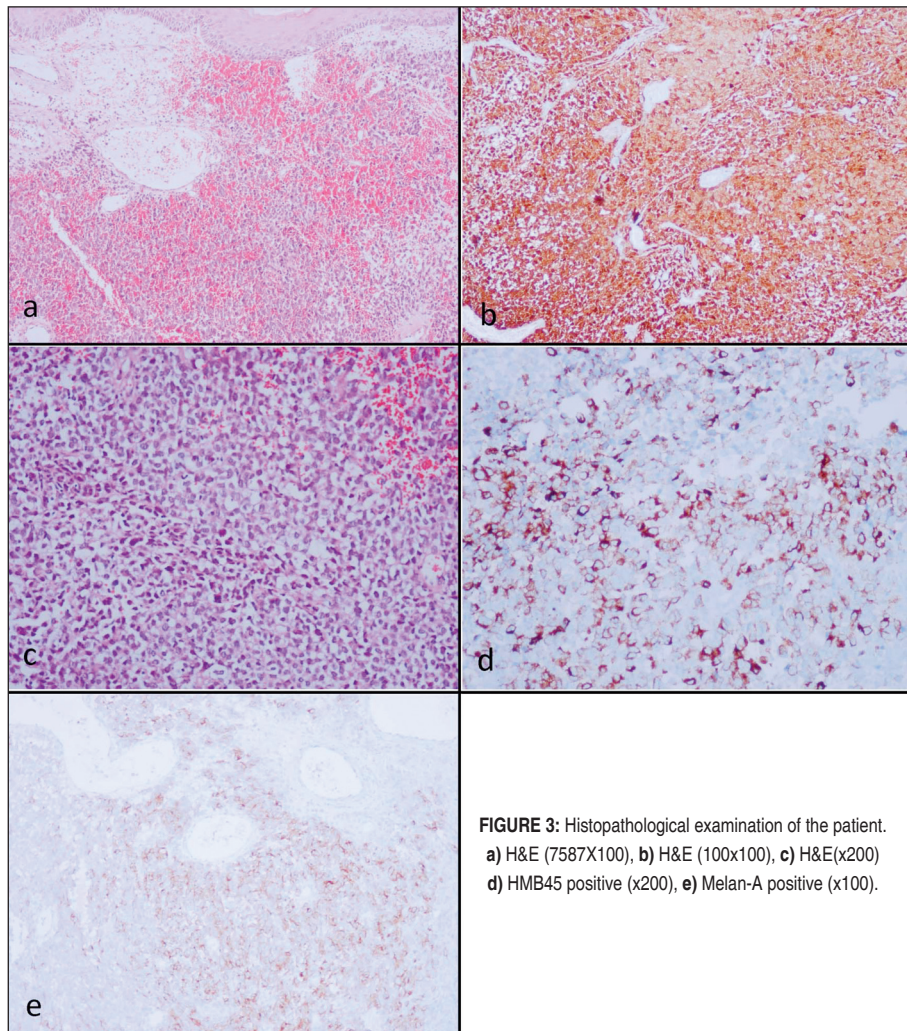
FIGURE 2: Not completely visible bone involvements in the palate on the panoramic radiograph.

dissection in November 2017. Following the excision, a temporary prosthetic obturator was made (Figure 4), but oral feeding could not be provided and naso-gastric tube was inserted to him for feeding. Then, the patient was directed to Radiation Oncology Department and radiotherapy was given to him for 2 months. One year after the operation, PET scanning revealed distant metastases to the kidney, liver, lung, skeletal system, corpus of L4 vertebra. A malignant melanoma metastasis was diagnosed by tru-cut biopsy from the kidney. The patient has lost 40 kg and chemotherapy could not be applied because his age and weight lost. Instead, he received 6 cycles of immunotherapy for 3 months, 15-day intervals. The patient was followed up regularly. Unfortunately, he passed away 16 months after the operation in March 2019.

## DISCUSSION

Oral melanomas are extremely rare, aggressive and they are silent progressive neoplasms.<sup>3,9,11</sup> 80% of the cases are localized on maxillary gingiva, hard palate and alveolar crest, while about 20% are localized on mandibular.<sup>11</sup> They may occur on buccal mucosa, lips, tongue and floor of the mouth in the mandible which is rare.<sup>2</sup> However, it is frequently on hard palate region.<sup>9-11</sup> In this case the lesion was on hard palate and because the development of lesion was asymptomatic, the patient applied late to clinic.

When the intraoral findings of oral melanomas are to be irregularly bounded, bleeding, asymmetric, non-melanotic, it is reported to be dark brown, black, blue, red colored and as flat or high leveled lesions.<sup>11</sup> This case supports the above-defined symptoms.



**FIGURE 4a, b:** Temporary prosthetic obturator.

Lesions are seen in 5 types:

- Pigmented nodular
- Non-pigmented nodular (amelanotic), (seem less than 10%)<sup>8</sup>
- Pigmented macular
- Pigmented mixed
- Non pigmented mixed.<sup>2</sup>

The pigmentation in the tumor does not affect the prognosis.<sup>10</sup> In our case, it was defined that the lesion is an amelanotic nodular type, due to the absence of pigmentation.

Metastases can be seen on the lymph nodes, liver, lung, bone, and brain as the disease progresses.<sup>2,10,12</sup> After diagnosis, CT, MR, PET/CT images are used to detect lymph node involvement or distant metastasis.<sup>8</sup> The involvement of regional lymph node is 25% on the oral cavity. Therefore some investigators suggest elective lymph node dissection at the malignant melanomas in oral cavity.<sup>8</sup> Sentinel lymph node biopsy is not generally recommended.<sup>13</sup> Despite of aggressive surgery, recurrence develops in 29-79% of patients.<sup>14,15</sup> Radiotherapy can be used for locoregional control. Despite of that, no significant effect has been specified on survival.<sup>16</sup> Some centers recommend postoperative radiotherapy in cases with palpable lymph nodes or extracapsular spread following wide local excision and neck dissection cases.<sup>17</sup> Adjuvant immunotherapy (high-dose interferon alpha or ipilimumab) has limited data on melanomas in the oral region.<sup>18,19</sup> The etiopathogenesis of melanoma in the oral cavity is not clear. It behaves like acral lentiginous melanoma.<sup>9,20</sup>

Mucosal melanomas should be investigate for V600 BRAF mutation, and for those patients without this mutation, KIT mutation should be analyzed.<sup>21</sup> BRAF mutation is detected in 10% of mucosal melanomas while KIT mutation is detected 25% and targeted treatment (imatinib) is applied.<sup>21,22</sup>

The treatment of malign melanoma consists of wide surgical excision, sometimes with adjunctive chemotherapy or radiation therapy.<sup>2,10</sup> In this case, PET scans revealed the presence of metastases in the bilateral cervical lymph nodes and tumor excision and bilateral neck dissection was applied. After one year, PET scanning revealed distant metastases. The patient has received radiotherapy and immunotherapy.

Melanoma must be found in the differential diagnosis of oral pigmented lesions. The differential diagnosis is generally made with drug pigmentations, Addison's disease, nicotine-dependent melanosis, melanotic macule, Kaposi's sarcoma, melanotic nevus, melanoacanthoma.<sup>3,9</sup> Melanomas have asymmetry, ir-

regular border, variable color (except for the color change created by amalgam tattoo), or a growing mass.<sup>2,23</sup>

Smoking is also important in differential diagnosis as it can interfere with nicotine-related melanosis. Chronical trauma, such as a denture trauma, has also been reported as a predisposing factor.<sup>11</sup> However; in this case there is no smoking, denture and alcohol use.

Oral cavity melanomas are often detected late.<sup>3</sup> For this reason, careful clinical examination and well-known differential diagnosis in each patient will provide early diagnosis.

As a result, the rare occurrence and asymptomatic development of oral melanomas may delay the diagnosis. The intraoral examination and differential diagnostic knowledge that the physician diligently performed in every patient, can contribute to early diagnosis with minimally invasive treatment. Thus, the survival rate can be increased.

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#### Conflict of Interest

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#### Authorship Contributions

**Idea/Concept:** Defne Yalçın Yeler, İlknur Eninanç; **Design:** İlknur Eninanç, Hatice Reyhan Eğilmez, Defne Yalçın Yeler, Tuğba Kaya Akçay; **Control/Supervision:** İlknur Eninanç, Hatice Reyhan Eğilmez, Tuğba Kaya Akçay, Defne Yalçın Yeler; **Data Collection and/or Processing:** İlknur Eninanç, Hatice Reyhan Eğilmez, Tuğba Kaya Akçay; **Analysis and/or Interpretation:** İlknur Eninanç, Hatice Reyhan Eğilmez, Defne Yalçın Yeler, Tuğba Kaya Akçay; **Literature Review:** İlknur Eninanç, Hatice Reyhan Eğilmez, Defne Yalçın Yeler, Tuğba Kaya Akçay; **Writing the Article:** İlknur Eninanç, Hatice Reyhan Eğilmez, Defne Yalçın Yeler, Tuğba Kaya Akçay; **Critical Review:** İlknur Eninanç, Hatice Reyhan Eğilmez, Defne Yalçın Yeler; **References and Fundings:** Hatice Reyhan Eğilmez, İlknur Eninanç; **Materials:** İlknur Eninanç, Hatice Reyhan Eğilmez, Defne Yalçın Yeler, Tuğba Kaya Akçay.

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