

Primary Malignant Melanoma of The Oral Cavity

M Göregen, B Cakur, N Gürsan, O Bilge

Citation

M Göregen, B Cakur, N Gürsan, O Bilge. *Primary Malignant Melanoma of The Oral Cavity*. The Internet Journal of Dental Science. 2005 Volume 4 Number 1.

Abstract

Malignant melanoma of the oral cavity is a rare condition, accounting for about 1-2% of all melanomas. Oral melanomas have extremely poor prognosis. Therefore, pigmented lesions of undetermined origin should be routinely biopsied. In this article, we aimed to present a primary malignant melanoma of the hard palate.

INTRODUCTION

Primary malignant melanomas of the head and neck are rare constituting approximately 1-2 % of all melanomas (_{1,2}). Half of the head and neck melanomas occur in the oral cavity, followed by the nasal cavity (44%) and sinuses (8%) (₃). The age range for patients with oral melanoma is from 40 to 70 years; the average age is 55 years (_{2,3,4}). Oral melanoma appears to be slightly more common in men than in women, and the most frequent sites of occurrence are the hard palate and the maxillary gingiva (_{2,4,5,6}).

Melanoma of the oral mucosa is less common than cutaneous melanoma (₇). Due to its rarity, the origin of oral melanomas and the risk factors are largely unknown (₄). Certain races may be more commonly affected: the Japanese (₈), black Africans (₉), native Americans (₁₀) and Hispanics (₁₁). At the site of oral melanoma, asymptomatic pigmentation areas or nevi are noted before diagnosis in approximately one third of patients (_{5,12,13,14}). Intraoral melanomas are usually darkish brown to black in color, but amelanotic lesions have also been reported (₁). Most oral melanomas present as solitary lesions, however, multiple or synchronous lesions have also been reported (₁₅).

CASE REPORT

An 65-year-old edentulous woman who has been using total denture for 20 years presented with a 10-day history of a rapidly enlarging, painless, 2 cm in diameter, pigmented but not uniform lesion raising from mucosa on the hard palate (Fig.1). There was a cushion in the maxillar denture (Fig.2). The patient had no known history of any preexisting nevus. More posteriorly, melanotic satellite areas were observed.

Figure 1

Figure 1: Primary malignant melanoma of oral cavity. There are satellite lesions (see arrows).



Figure 2

Figure 2: The upper denture of the patient. Note the cushion within the denture (see arrow).

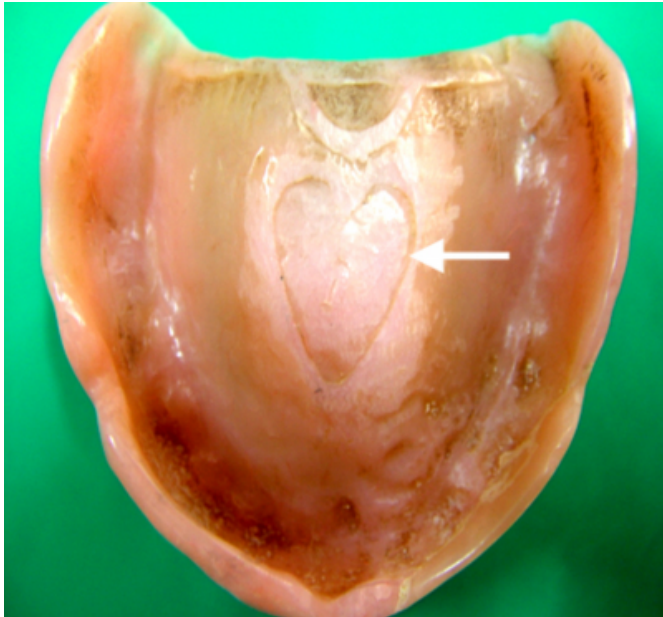
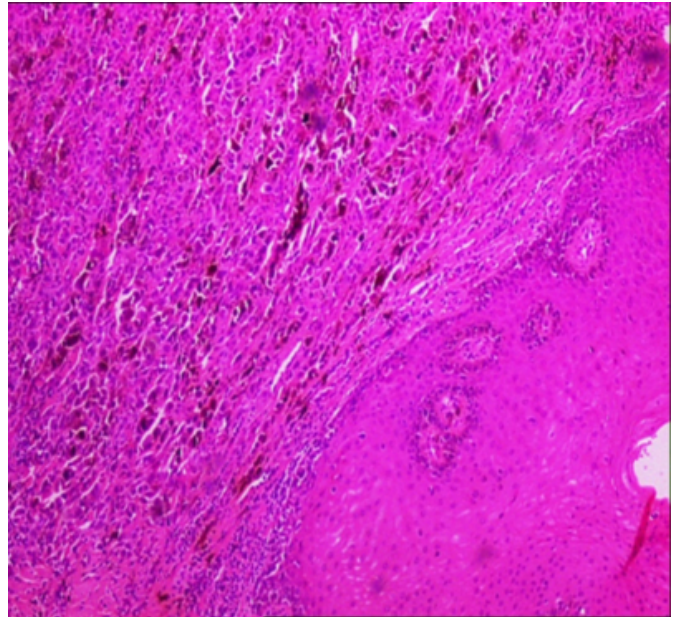


Figure 3

Figure 3: Downward streaming in the dermis of the tumor cells (40X)



There was no lymphadenopathy and hepatosplenomegaly or any abnormal systemic sign. The patient was not smoker and drinker. Chest X-ray, bone scan and body computed tomography scan were within normal limits. According to subperiosteal excisional biopsy, the diagnosis was malign melanoma.

Histopathologically, the biopsy revealed a downward streaming in the dermis of the tumor cells (Fig.3). There were strikingly atypical melanocytes arranging as solitary units, irregular cords and nests. A proliferation of neoplastic cells exhibited a wide variety of shapes, including spindle, plasmacytoid, and epithelioid forms. With higher magnification, nuclei were seen to be atypical and cytoplasm abundant and eosin staining. Mitotic activity and pigmented areas were observed at various tissue levels (Fig.4). Immunohistochemistry was used to establish the final diagnosis. The tumor cells strongly expressed S100 protein and GP100 (HMB-45) antibodies (Fig.5).

Figure 4

Figure 4: Mitotic activity and pigmented areas were observed at various tissue levels (200X)

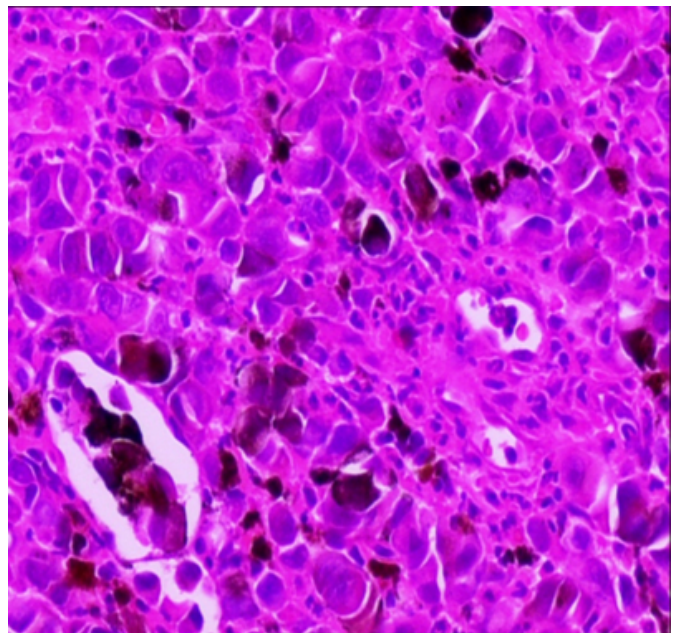
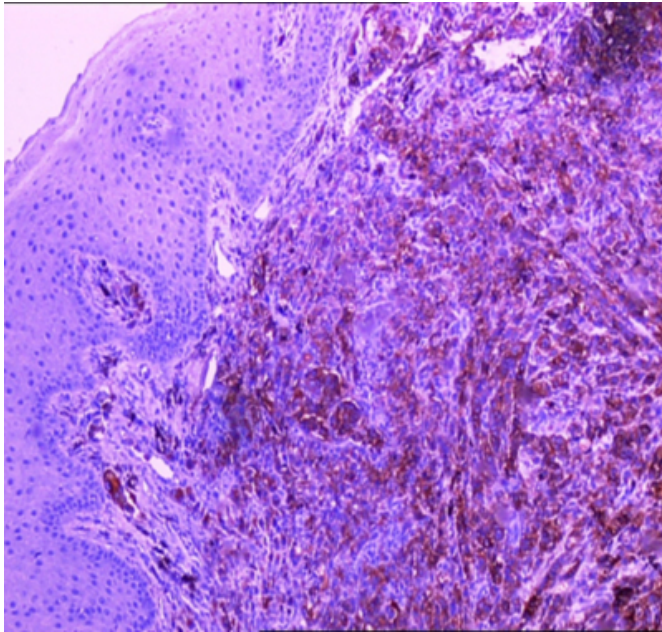


Figure 5

Figure 5: The tumor cells strongly expressed S100 protein and GP100 (HMB-45) antibodies (40X)



With the diagnosis of malignant melanoma, the patient was referred to Radiation Oncology Department for treatment. Radiotherapy was administered to the patient.

DISCUSSION

The International Union Against Cancer (IUAC) has no proposed clinical TNM classification for malignant melanoma, but Westbury^(16,17) describes a clinical classification: I-primary tumor presents only, II-metastases present (IIa-adjacent skin involved, IIb-regional lymph nodes involved), III-metastases beyond regional nodes. Our case falls into the classification of IIa because satellite lesions were present.

There is a general agreement that surgery is the treatment of choice for oral malignant melanoma. Most authors advocate wide local excision of the lesions, with or without lymph node dissections. Although it is generally agreed that melanomas are not radiosensitive^(5,12), due to an anatomic restriction for our patient, it was decided radiotherapy as treatment modality.

Possible etiologic factors for oral melanoma are mechanical

trauma, ill-fitting dentures, oral habits, self medication and exposure to formaldehyde⁽¹²⁾. Since our patient has been using total denture with cushion, melanoma may be originated from mechanical trauma.

CORRESPONDENCE TO

Binali ÇAKUR, DDS PhD Department of Oral Diagnosis and Oral Radiology, Faculty of Dentistry, Atatürk University, Erzurum, Turkey Business telephone number: 0090.442.2311765 Fax number: 0090.442.2360945 E-mail address: bcakur@atauni.edu.tr

References

1. P Lenane, FC Powell. Oral pigmentation. *European Academy of Dermatology and Venerology* 2000;14:448-65
2. Albert M. Manganaro, Harold L. Hammond. Oral melanoma. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 1995;80:670-6
3. Karem Lopez Ortega, Ney Soares de Araujo. Primary malignant melanoma of the oral cavity: a case report. *Int J Dermatol* 2004;43:750-752
4. Maria Rita Bongiorno, Mario Arico. Primary malignant melanoma of the oral cavity: a case report. *Int J Dermatol* 2002;41:178-81
5. Ronald P.Rapini, Loren E.Golitz, Robert O. Greer. Primary malignant melanoma of the oral cavity. *Cancer* 1985;55:1543-51
6. Rogezi JA, Sciubba JJ. Clinical-pathologic correlations. *Oral Pathology* 1993:167-71
7. Ginat W. Mirowski, Jill S. Waibel. Pigmented lesions of the oral cavity. *Dermatologic Therapy* 2002;15:218-28
8. Umeda M, Shimada K. Primary malignant melanoma of the oral cavity its histologic classification and treatment. *Br. J. Oral Maxillofac Surg* 1994;32:39-47
9. Broomhal C, Lewis MG. Malignant melanoma of the oral cavity in Uganda. *Africans Br J Surg* 1967;54:581-84
10. Black WC, Wiggins C. Melanoma in Southwestern American Indians. *Cancer* 1984;55:2899-2902
11. Black WC, Goldham RT, Wiggins C. Melanoma within a Southwestern Hispanic Population. *Arch Dermatol* 1987;7:1331-34
12. B. Gözel Ulusal, Özlem Karatas, A. Cemil Yildiz. Primary malignant melanoma of the maxillary gingiva. *Dermatol Surg* 2003;29:304-7
13. Chaudry AP, Hampel A, Gorlin RJ. Primary malignant melanoma of oral cavity : a review of 105 cases. *Cancer* 1958;II:923-28
14. Mody RN, Puranik SV. Oral malignant melanoma : a case report. *Indian J Dent Res* 1992;3:121-2
15. A.Buchner, P.W.Marell, W.M.Carpenter. Relative frequency of solitary melanocytic lesions of the oral mucosa. *J Oral Pathol Med* 2004;33:550-7
16. Ninian S. Peckitt, Graham A.Wood. Malignant melanoma of the oral cavity. *Oral Surg Oral Med Oral Pathol* 1990;70:161-4
17. Westbury G. Malignant melanoma of the skin. *Pitman Medical* 1979;1:24-36

Author Information

Mustafa Göregen, DDS

Department of Oral Diagnosis and Radiology, Faculty of Dentistry, Ataturk University

Binali Cakur, DDS, PhD

Department of Oral Diagnosis and Radiology, Faculty of Dentistry, Ataturk University

Nesrin Gürsan, MD, PhD

Department of Pathology, Faculty of Medicine, Ataturk University

O. Murat Bilge, DDS, PhD

Department of Oral Diagnosis and Radiology, Faculty of Dentistry, Ataturk University