

What Is Under the Denture

¹Dr. T. Jones Raja Devathambi, MDS, Senior Lecturer, Dept of Oral Medicine and Radiology, CSI College of Dental Sciences and Research Madurai, India.

²Dr. A. Winnifred Christy, MDS, Professor and Head, Dept of Oral Medicine and Radiology, CSI College of Dental Sciences and Research Madurai, India.

³Dr. K. Vel Latha, MDS, Consultant Periodontist and Private Practitioner, Madurai.

⁴Ms. R. Varsha, Intern, CSI College of Dental Sciences and Research, Madurai, India.

Corresponding Author: Dr. A. Winnifred Christy, MDS, Professor and Head Dept of Oral Medicine and Radiology, CSI College of Dental Sciences and Research, Madurai, India.

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Abstract

Oral Malignant Melanoma is a rare and one of the deadliest tumour occurring in oral cavity. Any mucosal site may be affected while palate and maxillary alveolar mucosa are most commonly involved. Its aggressiveness corresponds to its greatest tendency to metastasis and locally invade the tissue. Therefore, the early detection, tumour size and metastasis determines the prognosis of the condition. An interesting case of oral malignant melanoma of the hard palate, which was diagnosed clinically and histo-pathologically is reported with a brief review of literature. This case is reported for rarity and unusual presentation of the tumor under an existing denture in the palate which led to missed detection in early stages.

Keywords: Malignant Melanoma, Palate, Denture wearer, Vertical growth phase.

Introduction

Mucosal melanoma is a malignant neoplasm of neural crest- derived melanocytes or of melanocyte precursors as defined by WHO. [1] It is characterized by proliferation of malignant melanocytes along the junction between the epithelial and connective tissues as well as within the connective tissue.[2]¹Studies report that oral melanomas accounts for 0.2-0.8% of melanomas and approximately 1.6% of all head and neck malignancies.[3,4]The incidence of oral melanoma is four in ten million populations per year.[4] While the maxillary alveolar mucosa and hard palate being the common site of occurrence the other sites like mandibular gingiva, buccal mucosa, and floor of the

mouth may also be involved.[5]Mucosal melanoma tends to present at an advanced stage with more aggressive vertical growth (nodular) phase of disease and intense vascularization that could influence the elevated incidence of metastasis. The prognosis for patients with oral melanoma is much worse than for those with cutaneous lesions and the overall five-year survival rate is about 15-38%.[6]

Case Report

A 90-year-old male patient reported to the outpatient department with blackish growth in the maxillary anterior region for the past 1 year with inability to wear the denture for the past 6 months. Patient has been a denture wearer for the past 10 years. He is a known diabetic & hypertensive for the past 25 years and is under medication. On clinical examination, extra-orally, areas of diffuse macules were seen on the right side of the scalp and on the left forehead region. Intraorally, an ill-defined solitary exophytic pedunculated blackish growth measuring approximately 3 cm x 2 cm was evident on the maxillary anterior ridge. The lesion extended mesio-distally from the region of 13 to 23, supero-inferiorly from the depth of the labial vestibule to the rugae of the hard palate (Fig 1).

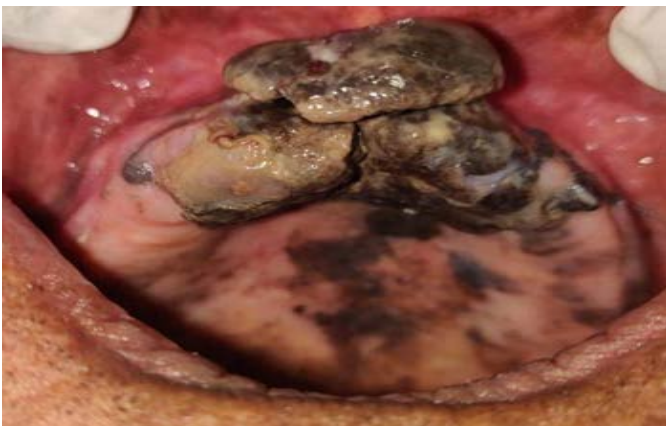


Figure 1: Blackish exophytic growth in the maxillary anterior alveolus and hard palate.

The surface over the lesion was rough. On palpation, the growth was mildly tender, with a high tendency to bleed and firm to hard in consistency. Brownish black diffuse macules were seen on the hard palate and on the buccal mucosa. (Fig 2)



Figure 2: Brownish black diffuse macules in the left buccal mucosa.

On the imaging front, MRI showed mixed signal lesions and the CT showed mixed density lesions involving the central portion of the maxillary alveolus measuring about 2.8*2.5 cm. Evidences of multiple enlarged lymph nodes involving both sides of the cervical chain level Ib, IIa and IIb was noted suggesting lymph node metastasis involving bilateral cervical nodes (Fig 3).

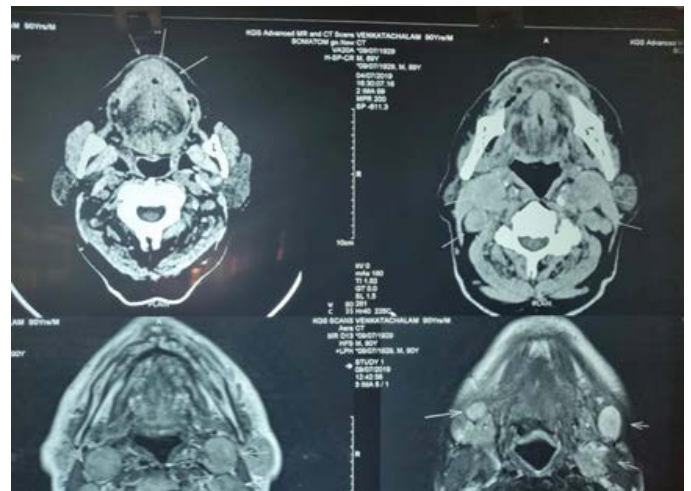


Figure 3: Magnetic Resonance Imaging showed mixed signal lesion and Computed tomography showed mixed

density lesion in maxillary anterior region with destruction of underlying bone and involvement of cervical lymph nodes.

Histologically a thin, irregular and ulcerated epithelium, with neoplasm composed of cells arranged in sheets, nests and cord were seen. The individual cells appeared epitheloid with moderate to abundant cytoplasm along with enlarged rounded nuclei with vesicular chromatin and prominent nucleoli. Intra-nuclear inclusions with few giant cells and many atypical mitotic figures were noted along with necrosis. (Fig 4)

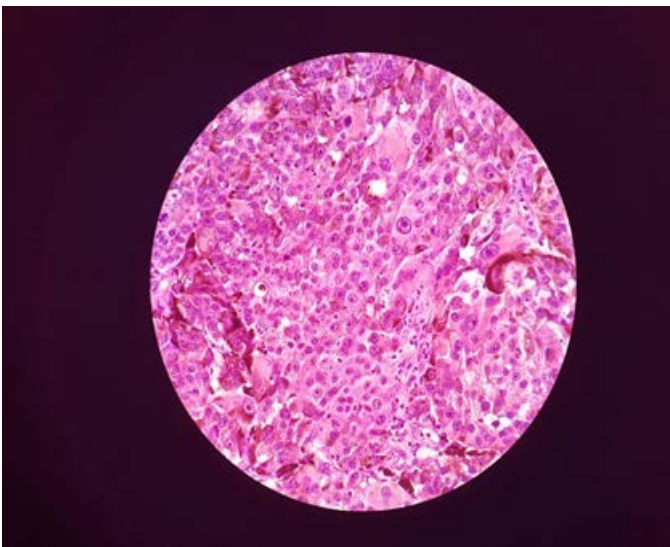


Figure 4: Histopathological picture (40X) showing Epitheloid cells with moderate to abundant cytoplasm along with enlarged rounded nuclei with vesicular chromatin and prominent nucleoli.

The clinical, radiological and histological findings confirmed the diagnosis of malignant melanoma. All the medical information regarding the diagnosis, tumour staging, therapeutic options and the prognosis was informed to the patient and his family. They were not willing for any further surgical management owing to his age and other health conditions.

Discussion

Oral malignant melanoma is clinically asymptomatic in the early stages and usually presents as a

hyperpigmented patch on the surfaces.[6] In India, the age adjusted rates (AARs) of the incidence of melanoma of the skin in the North region is 1.62 for males and 1.21 for females for every 1,00,000 people. This is low when compared to the global AARs of 36.9 in males in the Western Pacific region and 31.7 in females in European region. There is a slight male predilection of occurrence with the male to female ratio of almost 2:1. [7] As in our case, the patient was male and presented just with the difficulty of wearing denture and was asymptomatic of the exophytic growth. Melanomas may develop in or near a previously existing precursor lesion or in healthy-appearing skin.[2] Etiological factors of cutaneous malignant melanoma includes sun exposure, artificial UV sources, increased number of melanocytic naevi, familial melanoma. The risk factors of oral melanoma includes smoking, alcohol consumption, poor oral hygiene, irritation from the teeth and denture. Our patient being a denture wearer, the irritation of which could have been one such etiological factor to be considered.[3] The two growth phases of melanoma includes radial growth phase and vertical growth phase. Metastasis is possible once the melanoma enters the vertical growth phase. In our patient melanoma might have entered to the vertical growth phase corresponding to the nodal metastasis

Clinical staging of oral melanoma is by TNM staging (T-primary tumour size, N-regional lymph node metastasis, M-distant metastasis) and Breslow's and Clark depth level are used as prognostic factor in melanoma [4]. The stage of Oral melanoma in our patient is T2N2M1

CT and MRI studies should be undertaken to find out the exact extent of lesion and regional metastasis to the submandibular and cervical lymph nodes. The staging and grading of melanoma is an important criteria in

deciding the prognosis of the melanoma The treatment of oral melanoma is wide surgical excision.[3] In our patient the malignancy has already invaded the underlying submucosal tissues, which will result in significant morbidity with wide surgical excision hence the treatment plan was declined. The patient neglected his oral health by not visiting the dentist periodically and hence missed the detection of tumor in early stages. This shows the importance of annual dental visits even for edentulous patients to check the health of their oral cavity and status of the existing dentures.

Conclusion

The rate of mucosal melanoma in a denture wearer has become a fascinating finding as reported. The essential goal of revealing this uncommon case is to underline the requirement of timely investigation of the pigmented lesions and featuring the significance of biopsy as an aid in the prompt diagnosis of oral malignant melanoma thereby providing the prompt treatment. This case report is to provoke the thought of any pigmented lesions under the denture requires observation with caution.

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