

Case Report

Primary Intra-oral Malignant Melanoma - A Case Report

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ABSTRACT:

Oral malignant melanoma is the rarest tumor accounts for only 0.2-8% of all the malignant melanomas. Less than 1% of all reported primary melanomas arise in the oral cavity. Due to their greater tendency of metastasis and poor prognosis they are considered as deadliest of the tumours of the oral cavity. Although the exact cause of the tumour is not known a few etiological agents are considered. Maxilla is most commonly affected site with gingival and palate being affected 80% of the time. This article describes a rare case of malignant melanoma involving the hard palate in the 45 year old male patient.

Key words: Malignant melanoma, gingival, hard palate, Maxilla

Received: 20 July, 2019

Revised: 12 August, 2019

Accepted: 15 August, 2019

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This article may be cited as: S Pai N, Nayak SD, Nayak AD, Shenoy A, Das P, Nayak DD. Primary intra-oral malignant melanoma - A case report. Int J Res Health Allied Sci 2019;5(5):16-18.

INTRODUCTION

Melanomas are malignant neoplasms that arise from neural crest cells. Oral malignant melanoma are rare tumor and usually occurs with highest incidence in the 6th decade of life, which ranges from as early as 30 years and even arises as late as 90 years. ¹ In the oral cavity the most common site is the palate which accounts for 40% of the cases followed by buccal gingival in about 1/3rd of the cases. Clinical presentation can vary widely from atypical pigmented macular to non pigmented vascular form. ² In this article we report a case of a 45 year old male patient who presented with palatal ulcer.

CASE REPORT

A 45 year old male patient presented with the chief complaint of ulcer in the upper left back tooth region since 2 yrs. History revealed that ulcer was sudden in onset, initially small in size and gradually had increased to reach up to the present size. The patient also related the onset of

swelling following a tooth extraction in the same region 2 yrs back. It was not associated with pain, bleeding and discharge. Personal history revealed he was a gutkha chewer and cigarette smoker since 20 yrs and has now stopped the habit.

On intraoral examination it was found that the mouth opening was in normal limits. On clinical examination a solitary well defined exophytic growth with irregular borders was present in the left side of posteriolateral aspect of hard palate extending anterioposteriorly from alveolous in the region of 26 and posteriorly beyond 27 to the maxillary tuberosity region. (Fig- 1) Medirolaterally lesion was extending 1cm in the soft palate without crossing the midline. The lesion roughly measured 2 x 1.5 cms in diameter. On palpation the growth was non tender, non movable, firm with nodularity in the anterior region and induration in posterior region. Radiological examination was done and occlusal radiograph revealed showing large lytic lesion in the left posterior 26, 27 region

of maxilla (fig- 2). Orthopantomogram revealed erosion of the alveolar bone left maxillary posterior region in 26, 27 region (Fig- 3).

Correlating with the clinical and radiographical features a provisional diagnosis of oral squamous cell carcinoma of palate/alveolus was made and the patient was referred for incisional biopsy and specimen was sent for histopathological examination.

The sections were routinely processed and stained with haematoxylin and eosin, and it showed stratified squamous epithelium extensively infiltrated by nest of large cells with pleomorphic vesicular nuclei, prominent nucleoli and abundant cytoplasm. Also presence of extensive dispersed brown pigmentation dispersed throughout the sections confirming the diagnosis of malignant melanoma. The patient was advised for further surgical treatment and excision of the same.



Fig -1: Clinical presentation of well defined exophytic ulceroproliferative growth present in the left side of posteriolateral aspect of hard palate.

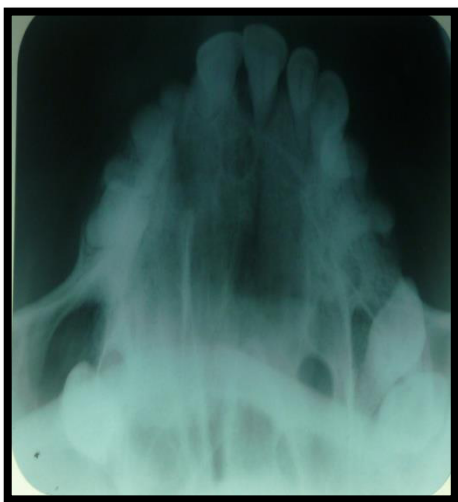


Fig -2: Occlusal radiograph showing large lytic lesion in the left posterior maxilla



Fig -3: Orthopantomograph (OPG) shows erosion of the bone in the left maxillary posterior region of 26, 27

DISCUSSION

Malignant Melanoma is a malignant neoplasm arising from the neural crest cells. It is believed that during the stage of embryologic development, melanocytes migrate from the neural crest into the epithelial lining of the skin and, in the developed skin, they reside primarily in the basal epithelial layer.^{3,4} Melanomas are deadly disease. Although it constitutes only 3 – 5% of all cutaneous malignancies, it accounts for most of the skin cancers - related deaths (77%).⁵ Oral melanoma is extremely rare and accounts for less than 1% of all melanomas^{3,5,6,7} and 1.6% of all head and neck malignancies.^{4,5} Melanomas of the oral cavity are the rare malignant neoplasia accounting for 0.2-8% of the melanoma as told by Zirkin.⁸ The primary malignant oral melanoma accounts for 0.4–1.3% of all malignant neoplasms and Indian studies have revealed that 20–30% of these are at the mucosal surface and 16% are intra-oral.^{9,10} Melanoma is a malignancy occurring commonly in adulthood, with age more than 30 years of life (Hashemi et al, 2008, Chidzonga et al, 2007). Men are affected 3.5 times more than women (Gondivkar et al., 2009).¹¹ The most common intra-oral sites for its occurrence are the palate and the maxillary gingiva, although it can also be seen occasionally in the buccal mucosa, mandibular gingiva, lips, tongue, and the base of the oral cavity in the decreasing order of frequency.¹¹ According to Berthelson et al the initial symptoms were asymptomatic swelling and occasional bleeding.^{1,11} Most primary intra-oral melanomas are asymptomatic, swelling with pigmentation being the initial sign.¹¹ Despite of being one of the rare tumors, it is the most important pigmented lesion. Other presenting signs and symptoms include bleeding, ill fitting dentures, pain, increased mobility of the teeth and delayed healing of extraction sockets.¹¹

Westoury describes clinical classification of melanomas as follows:^{12,13}

- I- Only primary tumour present
- II- Metastasis present (II a –adjacent skin involved, IIb - regional lymph nodes involved. II ab - adjacent skin and lymph nodes involved
- III- Metastasis beyond regional lymph nodes

There are 5 types of oral malignant melanomas on the basis of clinical appearance, pigmented nodular type, non pigmented nodular type, pigmented macular type, pigmented mixed type and non pigmented mixed type.¹¹

The so-called ABCDE checklist (asymmetry, border irregularities, color variegations, diameter greater than 6 mm, and elevation, a raised surface), which is used in the identification process of cutaneous melanoma, could also be of some help in the diagnosis of oral melanoma.¹⁴

The only study effective in the diagnosis of oral malignant melanoma will be tissue biopsy. Imaging studies such as contrast enhanced CT may be useful in determining the extent of metastasis present. Immunohistochemical studies shows 100protein, MART-1, HMB-45 reactivity of the lesion useful in distinguishing melanomas from other malignancy.¹ Clinical staging of tumor, node, metastases (i.e. TNM) in association with histopathological microstaging is a beneficial factor in the prognosis of OMM, as given below.^{15,16}

Stage I: Presence of primary tumor (T any N₀ M₀)

Level I: Pure *in situ* melanoma with either absence of invasion or *in situ* melanoma with “microinvasion”

Level II: Involvement of the lamina propria

Level III: Invasion into the deep skeletal tissue (skeletal muscle, bone, or cartilage)

Stage II: Metastasis of tumor to regional lymph nodes (T any N₁ M₀)

Stage III: Metastasis of tumor to distant sites (T any N any M₁).

Medical therapy is not often beneficial in treating melanomas. Surgery remains the most preferred treatment along with chemotherapy, radiotherapy, immunotherapy.¹⁶

Multinodular therapy offers the best likelihood of relapse free survival compared to any single therapy. The current guideline for treatment of primary intra-oral malignant melanomas is wide surgical resection aimed at complete resection of the primary tumour and all positive cervical lymph nodes.¹¹

The primary intra-oral malignant melanomas arising in the oral cavity are having poorer prognosis and survival rates compared to the cutaneous counterpart because of anatomic considerations and delayed diagnosis.¹¹ The size of most of the primary intra-oral melanomas is found to be, larger than 4 mm at the time of initial presentation. The early recognition, biopsy and diagnosis of pigmented and suspicious non-pigmented masses are of utmost importance, especially in high-risk sites such as the palate and maxillary gingiva.¹¹ The prognosis of the patients with oral melanoma is very poor and is certainly related to the biologic behavior of this disease.¹⁷

CONCLUSION

Early diagnosis and treatment remains the major aim of oral malignant melanoma to improve the prognosis of patients, due to its rarity and deadly nature to reduce the mortality rate. Public education of oral hygiene with periodic oral check up can be life saving and is important in early detection of such aggressive lesions.

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