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Case Report

An Unveiled Blackish Growth On Gums: A Call For Alert

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ABSTRACT

Melanoma of the oral cavity is a rare malignant disease (estimated at between 0.2 and 8 percent of all melanomas). It occurs approximately four times more frequently in the oral mucosa of the upper jaw, usually on the palate or alveolar gingiva. Because of the presence at relatively obscure areas in the oral cavity, most of oral malignant melanomas are diagnosed at a late stage. These lesions are associated with poor prognosis. Early diagnosis is essential for successful treatment and perhaps the key factor in improving the prognosis of oral malignant melanoma. For prevention of oral mucosal melanomas, any solitary pigmentation has no obvious explanation should be always biopsied. We hereby present a rare case of primary gingival malignant melanoma.

Key words: Malignant, gingiva, melanoma, melanin, melanocytes.

INTRODUCTION

Primary melanoma of the oral cavity (POM) is an infrequent neoplasia of very aggressive characteristics originated from the malignant transformation of the melanocytes of the mucosa.[1] The incidence of melanoma has been steadily increasing in the past several decades and is of the order of 3-8% in a year.[2]

It represents 0.2% to 8% of the total cases of melanoma from the other localizations of the body and 0.5% of all oral neoplasia. It occurs between 30 and 90 year of age, with higher incidence in the 6th decade. Incidence is slightly higher in males and others in females. The common sites of occurrence are the palate and gingiva with the maxillary arch being affected 80% of the time

The incidence of primary melanoma located in the oral cavity is rare, even more exceptional is the secondary form (metastasis in the oral cavity of primitive distant melanomas). When it is secondary or metastatic, the localization is more frequent in tongue, parotid and tonsils.[1] Mucosal melanoma tend to present at an advanced stage with more aggressiveness and are present in a vertical growth (nodular) phase of disease. Histologically, oral mucosal melanomas classified as in situ, invasive and combined in situ and invasive and combined in situ and invasive. Most oral melanoma lesions (85.0%) are invasive or have both an invasive and in situ pattern.[3]

No etiologic factors have been identified for oral melanomas. Risk factors have also remained elusive. Like their cutaneous counterparts, primary oral melanomas are believed to arise either from nevus, pre-existing pigmented areas or de novo (30% cases).[4] We hereby are presenting a rare case of primary gingival malignant melanoma.

CASE REPORT

A 65 year old male patient reported to the OPD with the chief complaint of painful swelling over front gums of left side since 15 days. Patient was apparently asymptomatic 15 days back then he noticed a small swelling over the upper front gums on left side.

Radiographic examination was carried out but no any significant finding was observed. Extra oral examination revealed palpable bilateral submandibular lymph nodes which were firm, mobile and non tender. Intra oral examination revealed blackish firm pedunculated swelling in upper gingiva in relation to 21, 22, 23 and 24 of size 0.5×1.5 cm. Blackish discoloration of gingiva was seen in relation to 21 to 28 and from palatal side it extends in relation to 21, 22, 23 and 26, 27 and 28. Diffuse melanotic areas were observed bilaterally on buccal mucosa and palate. (Figure 1)

Incisional biopsy was performed and the histopathologic examination showed overall clinical, radiological and histopathological features showed dysplastic melanocytes and melanin pigmentation interspersed within the connective tissue stroma were suggestive of invasive malignant melanoma. (Figure 2)

Figure 1: Intraoral photograph showing blackish discoloration of left maxillary gingiva.

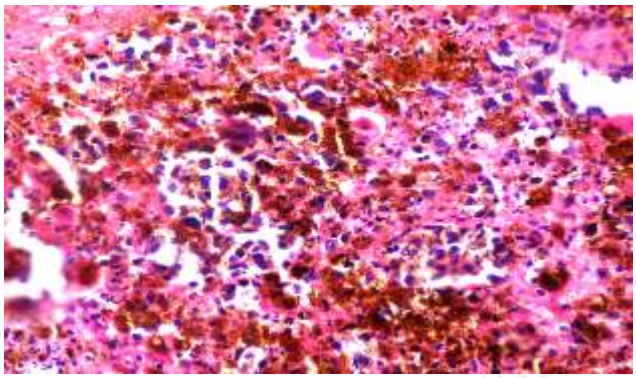

Figure 2 : Photomicrograph (40X) showing round to oval dysplastic melanocytes and melanin pigmentation interspersed within the connective tissue stroma.

DISCUSSION:

Oral malignant melanoma may demonstrate significant heterogeneity in morphological features, developmental process and biological behaviour.[5]

Indian studies showed 20.41% to 34.4% of all melanomas at mucosal surface and amongst 16% of these tumours were intraoral. Hashemi Pour reported age range between 56 and 77 years for occurrence of malignant melanoma. The mean age of patients was 69.2 years. From different studies, the male to female ratio ranges between 1/1 and 2/1.[4] Oral melanoma is generally included in the category of acral-lentiginous melanoma. It occurs most frequently in the maxilla with the palate as a common site (32% incidence). The maxillary gingiva is the second most frequent area of incidence (16%). Other affected regions in descending order of incidence are buccal mucosa, mandibular gingiva, lips, tongue, and buccal floor.[6] In our case lesion was found on maxillary gingiva in a male individual which falls well with the data given in the literature.

Primary oral melanoma is considered only when the following criteria described by GREENE (1953) are fulfilled: Demonstration of melanoma in the oral mucosa, Presence of

junctional activity, Inability to demonstrate extra oral primary melanoma.[1] Our case described here, justifies the criteria to be considered as primary oral melanoma. Weber described POM for the first time in 1859 and clear classification criteria haven't been incorporated as they exist for the cutaneous melanomas. Many classifications have been established to study it but none have been universally accepted.[7]

For the POM there are no geographic differences as occur with its cutaneous homologue, since there is no evidence of the influence of UV radiation in the development. The POM is very aggressive and as in its beginning it may poses a stable clinical aspect, differential diagnosis with other entities such as Addison's disease, Peutz Jeghers's syndrome or Kaposi's sarcoma must be performed. Also, with melanin pigmentations, both from racial or irritative causes, with melanocytic nevi and with other pigmentations of exogenous cause, such as amalgam tattoo. According to the literature, differential diagnosis with melanoacanthoma should be considered as well.[1] Delgado Azañero et al presented a practical and technically simple method for the clinical diagnosis of POM, which allows differentiating this neoplasia from other pigmented lesions. The clinical test consists in rubbing the surface of the lesion with gauze with the objective of verifying if it stains black due to the presence of melanin pigment on its surface. The authors refer that a positive result was obtained in 84.6% of the cases, that the method possesses an elevated sensibility to anticipate diagnosis and that a negative result does not exclude the possibility of this neoplasia, since there are cases in which the malignant cells have not invaded the superficial layers of the epithelium.[8] The Melanoma that involves the mucosa of the region of the head and neck is more aggressive when it is presented clinically as nodular, with a vertical growth that invades the sub mucosa. The prognosis is poor it is based on the histological type, the depth at microscopic level of the tumour's invasion and its localization. The literature points out that in the oral cavity it is observed with greater frequency in the mucosa that covers the bone tissue, such as that of the hard palate and gingiva. These localizations would play a significant role in the early invasion of the adjacent bone being an additional reason for the poor prognosis presented by this pathology.[1] The precursors are not well identified, some authors point out an atypical melanocytic hyperplasia (increase in the cell number) that proliferates in a previous stage to the apparition of the neoplasia, others refer to a pre-existing melanosis (increase of the melanogenesis) when these precursors would be the initial stage of a prolonged evolution of horizontal growth, before entering in the invasive stage of vertical growth. Other authors consider also as precursors the melanocytic nevi and qualify as interesting the coincidence that in the oral activity, these are localized with higher frequency in the hard palate as the melanoma.[7]

Oral melanomas should be separated from cutaneous lesions and they can be simply sub-classified into in situ and invasive types. It might also be useful for natural history considerations to identify invasive melanomas with an in situ

component, because these lesions may have originated from an in situ melanoma. In cases of oral melanocytic lesions in which microscopic cytology or architecture is equivocal, the designation "atypical melanocytic proliferation" could be used. This term would be a working diagnosis, and definitive diagnosis would necessitate clinical-pathologic correlation, re-biopsy, and clinical follow-up.[9] ABCDE (asymmetry, border irregularities, colour variegations, diameter greater than 6mm and elevation, a raised surface) criteria used in detection of cutaneous melanoma could also be of some help in the diagnosis of oral melanomas.[3] In WESTOP Banff workshop 50 cases of malignant melanoma were reviewed and was found that approximately 15% of cases were in situ mucosal lesions, and 30% were invasive lesions, 55% of the lesions had a combined pattern.[7] Our case, was found to be an invasive melanoma. Because of the apparent late stage of these lesions, it could not be determined whether the in situ component occurred before or after the invasive component. However, these combined lesions often had a clinical history of a pre-existing pigmented patch in the site of tumour development. When follow up of the patient was done it was found that patient died within 3 months.

The relative inaccessibility of the mucosa to self examination often delays diagnosis, leading to late detection and poor survival. At presentation, approximately 13% to 19% of patients have lymph node metastases and another 16% to 20% are likely to develop metastases subsequently. The aggressive behaviour of oral malignant melanoma is particularly problematic. Malignant melanoma in oral cavity accounts for 0.2% to 8.0% of all malignant melanomas, and it has much poorer prognosis than its counterpart on skin.[3] Prognosis, although poor, is highly variable. After five years the survival rate for patients with oral melanomas has been reported to vary between 5.2 percent and 20 per cent with a steady decline in survival after the traditional measure of five years.[5] On the other hand, good results have been reported and it has been emphasized that the disease is potentially curable if diagnosed and treated at an early stage.[5]

Surgery remains the most effective treatment for malignant melanoma and aggressive surgical control of local disease may result in prolonged disease-free survival.[5] Although wide resection with a surgical margin of 20 to 50 mm from a cutaneous melanoma is considered satisfactory, this kind of resection is not always possible for oral malignant melanoma.[10]

CONCLUSION

Any suspicious pigmented and non-pigmented lesions should be biopsied appropriately. The 'chameleonic' presentation of a mainly asymptomatic condition, the rarity of these lesions, the poor prognosis and the necessity of a highly specialized treatment are factors that could influence the diagnostic and management process of these malignancies.

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