

Primary malignant melanoma of oral cavity: A report of three rare cases

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Abstract

Oral malignant melanoma (OMM) is a rare tumor of melanocytic origin, accounting for 20–30% of malignant melanomas at the mucosal surface and 16% intra-orally. Hard palate and maxillary gingiva are the most common involved sites. In this case series, we present varying patterns of presentation of three cases of OMM with one case of distant metastasis. All cases in the current series presented at an advanced stage and died within a year of diagnosis. In conclusion, due to the aggressive clinical course and poor prognosis of this deadly lesion, it is of paramount importance to maintain a high index of suspicion for early detection and diagnosis for any pigmented lesion in the oral cavity.

Keywords: Malignant melanoma, metastasis, oral melanoma

Introduction

Oral malignant melanoma (OMM) is a malignant neoplasm of melanocytic origin.^[1] Indian studies have revealed that 20–30% of malignant melanoma are at the mucosal surface and 16% are intraoral.^[2]

In this case series, we present varying patterns of presentation of OMM with one case of distant metastasis.

Case Reports

Case 1

A 65-year-old male patient complained of growth and occasional bleeding on the right side of the palate since 8 months. The patient also had a history of smoking 10–12 bidis/day for 5–7 years and occasionally consumed alcohol.

Clinical examination revealed gross facial asymmetry, with swelling over the right side of the face and upper lip. Bilateral submandibular lymph nodes were palpable and firm in

consistency. A proliferative fungating growth was seen on the right side of the edentulous maxillary arch and palate, extending over the right alveolar ridge and facial vestibule up to the midline anteriorly, and covering the hard and soft palate up to the tuberosity posteriorly [Figure 1a]. The growth was brownish-gray with black and red patches, representing necrotic and hemorrhagic areas. Soft palate showed the presence of 4–5 brownish macules, each 0.5 cm in diameter [Figure 1b].

The contrast enhanced computed tomography (CT) maxilla showed large homogenous mass with infiltrating margins in the right anterior alveolus extending into the hard palate posteriorly [Figure 1c] and skin of the upper lip anteriorly with enlarged right submandibular lymph node [Figure 1d]. Histopathology showed stroma invaded by melanocytes displaying pleomorphism [Figure 2a]. The melanocytes were predominantly spindle-shaped and exhibited mitotic figures. Epithelioid shaped melanocytes were also seen dispersed in between. The growth pattern of these melanocytes was both in the radial and vertical growth phases. Intertwining and fasciculated bundles of malignant melanocytes [Figure 2b] were seen in a streaming fashion.

Case 2

A 57-year-old male patient presented with swelling on left side of upper jaw which was tender to touch. The patient was apparently well 1 month ago when he noticed pain in upper left upper back tooth region and swelling on left side of face which gradually increased. The patient was chronic

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beedi smoker with occasional consumption of alcohol since 35–40 years.

On inspection, extraorally, a diffuse swelling measuring 6 cm × 5 cm in size extending superiorly from 2 cm below the infraorbital margin till the corner of mouth inferiorly was seen. Intraorally, brownish black, irregular growth of 6 cm × 4 cm was seen extending from 13 to 27 on both buccal and lingual aspects involving ridge area [Figure 3a and b]. On palpation, extraoral swelling was soft fluctuant and tender. Intraorally, swelling was soft to firm inconsistency and tender.

Radiographically, a homogeneously enhancing soft tissue mass was seen involving left gingivoalveolar complex with

the erosion of left alveolar arch [Figure 3c], extension into the left lateral margin of hard palate [Figure 3d] with the

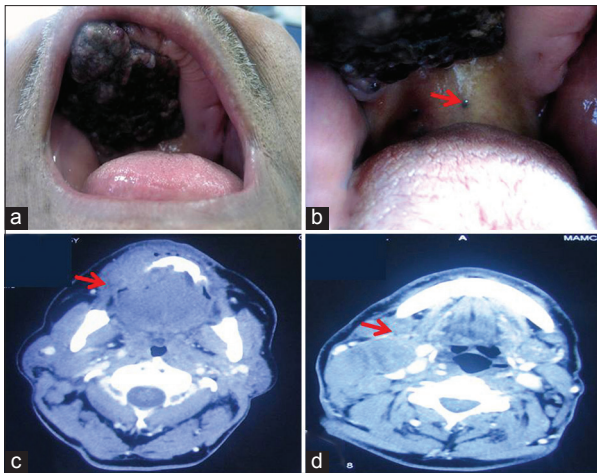


Figure 1: (a) Blackish brown proliferative growth on edentulous maxillary arch and palate and (b) small blackish macules on the soft palate. Contrast enhanced computed tomography showing (c) a large infiltrating homogenous mass on right anterior alveolus. (d) heterogenous enlarged submandibular lymph nodes

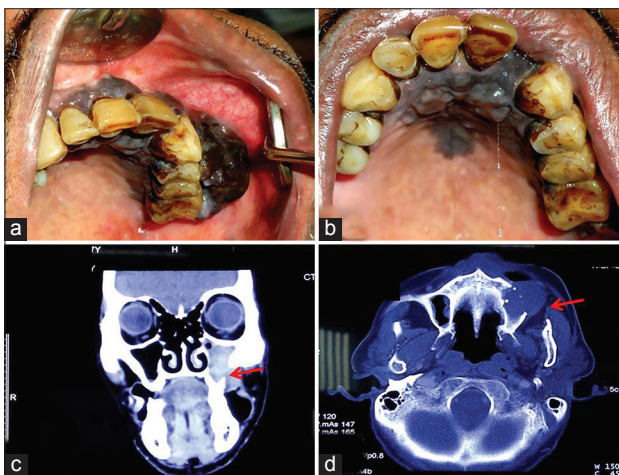


Figure 3: (a and b) Brownish black, irregular growth extending from 13 to 27 on both buccal and lingual aspects involving ridge area. Contrast enhanced computed tomography showing (c) a homogeneous mass with the erosion of left alveolar arch and (d) extension into the left lateral margin of hard palate

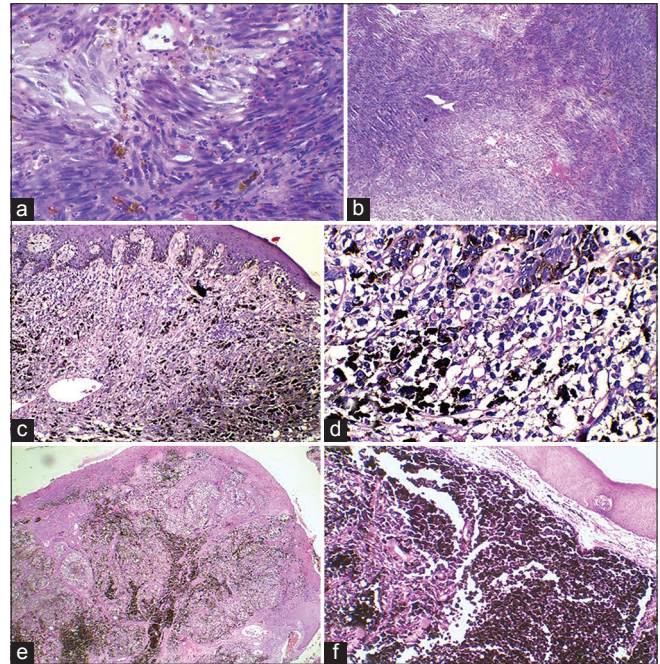


Figure 2: Microphotograph showing Case number 1 (a) pleomorphic melanocytes (H and E, x100) and (b) intertwining and fasciculated bundles of malignant melanocytes of (H and E, x400). Case number 2 (c) showing pleomorphic dysplastic melanocytic cells arranged in a pagetoid pattern (H and E, x100) and (d) epithelioid cells interspersed with the pigmented cells (H and E, x400). Case number 3 showing (e and f) atypical melanocytes singly and in nests in pagetoid fashion and in sheets (e: H and E, x40; f: H and E, x100)

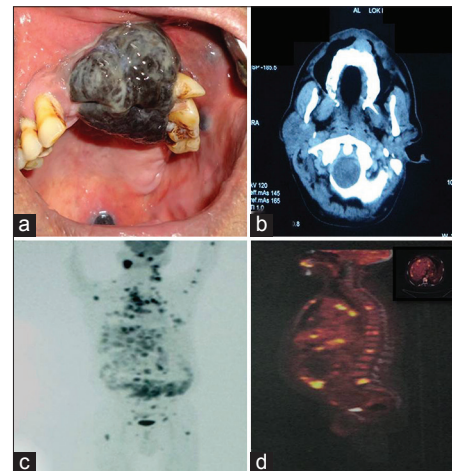


Figure 4: (a) Well circumscribed ovoid growth on maxillary anterior region. (b) Contrast enhanced computed tomography showing heterogeneous soft tissue mass perforating the anterior hard palate. (c and d) ¹⁸F-fluorodeoxyglucose positron emission tomography-computed tomography scan showing metastatic deposits in lymph nodes (cervical, supraclavicular, mediastinal, and abdominal), liver, lung, and brain. Inset shows multiple deposits in the brain

destruction of inferolateral wall of left maxillary sinus. Histopathologically, the connective tissue showed numerous ovoid to stellate dysplastic cells showing pleomorphism and dense dark brown pigmented granules throughout the cytoplasm arranged in a pagetoid pattern. Numerous epithelioid cells were seen interspersed with the pigmented cells. The connective tissue was composed of loosely arranged collagen fibers with moderate vascularity. The surface epithelium was ulcerated [Figure 2c and d].

Case 3

A 55-year-old male patient complained of blackish colored growth in the front upper region of the mouth. About 2 months before, he noticed a small black swelling in the anterior edentulous maxillary region of the palate with slight pain. Later, it expanded on the buccal area as well and caused the exfoliation of mobile tooth. The patient was a chronic alcoholic and beedi smoker since 45 years and smoked 20 beedis (approximately) per day. Extra-oral examination revealed the slight fullness of the upper lip. Left submandibular lymph node was enlarged and fixed, nontender, causing asymmetry of face. Intra-oral examination showed grayish black swelling measuring 4 cm × 4 cm × 3 cm in size in the edentulous area with buccal extension of 1.5 cm and palatal extension of 2.5 cm. The growth was well circumscribed ovoid, soft, and nontender [Figure 4a]. CT scan showed heterogenous soft tissue mass perforating the anterior hard palate [Figure 4b]. Borders were irregular and lobulated. A small well-circumscribed round flattened blue-black swelling was observed on the left side of the soft palate. A blackish mass measuring 1 cm was present on the patient's back. Fine needle aspiration cytology, an inky black aspirate was obtained that showed dispersed degenerated large atypical cells with few macronuclei. Histopathological examination showed infiltration of atypical melanocytes singly and in nests, in a pagetoid and organoid fashion [Figure 2e and f] showing granular pigmentation and hyperchromatism. The whole-body ¹⁸F-fluorodeoxyglucose positron emission tomography-computed tomography scan showed metastatic deposits in lymph node (cervical, supraclavicular, mediastinal, and abdominal), liver, lung, and brain [Figure 4c and d].

Discussion

OMM by nature is asymptomatic and hence their progression may remain unnoticed by patients, contributing to delay in diagnosis.^[3] All cases in the current series, presented at an advanced stage and were clinically of pigmented mixed type.^[4] Clinicians should be vigilant toward findings such as swelling within a pigmented area, hemorrhage, interference with denture fitting, and/or loosening of teeth. The absence of indurated edges that are usually indicative of carcinoma

may delay diagnosis. Pain is encountered mostly in advanced stages.^[5] In the present series, two cases presented with pain and one showed hemorrhage as oral manifestation. The third case showed loosening of anterior teeth associated with a pigmented swelling.

All three patients underwent multimodal chemotherapy and were dead within 6–12 months of diagnosis. Over half of all recurrences/metastasis occur within 3 years. Hence, there is a need to concentrate follow-up in the early time period following diagnosis.^[6]

The poor prognosis of OMM with the 5-year survival rate being between 15% and 38%.^[7] Metastasis from OMM occurs to the regional lymph nodes and in such distant sites as the lung, liver, brain, and bone.^[8]

Marx *et al.* recommended chest X-ray after every 6 months, postsurgery as a necessary follow-up tool to assess distant metastasis.^[9]

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Conflicts of interest

There are no conflicts of interest.

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