INTRODUCTION

The incidence of primary or metastatic malignant melanoma in oral mucosa is very rare. Oral melanomas may present as flat, brown or black macules, nodules or ulcerated lesions on gingiva, palate, lips, and very rarely on tongue. The prognosis for mucosal melanoma is worse than cutaneous lesions. Amelanotic melanoma is characterized by the absence of melanin pigment altogether. We describe a rare case of amelanotic melanoma of the tongue in a young man. The importance of considering melanoma in the differential diagnosis of suspicious oral lesions and the utility of immunohistochemistry in confirmation is discussed.

CASE REPORT

A 19-year-old man presented with a raised non-tender lesion on the tongue. The lesion was present since three years and was gradually increasing in size. The patient had a history of taking paan paraag and gutka for the past seven to eight years. Clinical examination showed an ulcerated lesion of 6 × 6 cm, present along the left lateral border of the tongue extending from the base to the tip [Figure 1]. The patient also had a palpable cervical lymph node of size 3 × 2 cm on the left side.

The tongue lesion was excised and we received a linear gray white mass of size 5 × 5 cm with an ulceration of 1 × 1 cm on the surface. Cut section showed a gray white growth of 4 × 4 cm involving the base but not the lateral margins.

On microscopy, tumor cells were seen involving the dermoepidermal junction and composed of sheets and nests of cells separated by scant fibrous stroma [Figure 2]. Tumor cells revealed nuclear pleomorphism, prominent nucleoli, and tumor giant cell formations. High mitotic activity was conspicuous with abnormal mitotic figures. In focal areas, the cells were spindle shaped and also epitheloid [Figure 3]. Tumor was seen infiltrating into the superficial squamous epithelium in a pagetoid fashion. Underlying skeletal muscle was also infiltrated.

Fine needle aspiration cytology (FNAC) of the left cervical lymph node showed good cell yield with a lymphocytic background. Sheets and clusters of tumor cells with moderate amount of cytoplasm, pleomorphic nuclei, and prominent nucleoli were identified. High mitotic activity and tumor giant cells were seen. Differential diagnosis included...
Amelanotic melanoma, poorly differentiated squamous cell carcinoma, amelanotic melanoma, and hemangiopericytoma. Immunohistochemistry was done with a panel of markers. Desmin was negative, whereas vimentin was focally positive. Epithelial Membrane Antigen (EMA) and CD34 were negative. However, the tumor cells showed strong diffuse positivity for Human Melanoma Black 45 (HMB) [Figure 4] confirming the diagnosis of malignant (amelanotic) melanoma of the tongue with metastases to the left cervical lymph node.

**DISCUSSION**

Primary malignant melanoma of the oral cavity is a rare neoplasm with the incidence ranging from 0.2% to 8.0% of all melanoma cases. Primary lesions from oral mucosa occur most frequently on the maxillary gingiva, palate, and lips. Melanoma of the tongue is uncommon and represents less than 2% of all oro-nasal melanoma cases. A review of literature revealed fewer than 30 reported cases of primary malignant melanoma of the tongue. Clinical types of malignant melanoma include amelanotic, mucosal, subungual, ulcerated, and verrucous phenotypes. Various factors have been implicated in the etiology of melanomas. They include familial and environmental factors such as exposure to UV radiation and precursor lesions like atypical nevi. Melanomas of the oral cavity and tongue are commonly found in patients older than 40 years, and there are no clinically important differences between the sexes. Oral pigmentation precedes the development of malignant melanoma in about one-third of the patients. Takagi and colleagues reported that mucosal melanosis was associated with oral melanoma in 66% of cases. Pre-existing lesions were seen in 36.2% and concurrent lesions in 29.8% of patients. In the present case, the patient was a young man presenting with a slow growing, ulcerated and nonpigmented lesion on the tongue.

Billings et al., identified junctional activity (44%) and epidermal migration (38%) in primary melanomas. In contrast, metastatic melanomas lacked evidence of junctional activity and surface migration. In the present case, serial sections of the excised specimen showed prominent junctional activity and pagetoid invasion into the surface epithelium.

Leong et al., found immunohistochemical profile of oral malignant melanoma to be similar to that of cutaneous melanoma, with the exception that oral melanomas were negative for cytokeratin. In our case also, HMB-45 was diffusely positive, whereas, cytokeratin was negative. However, the diagnosis of a primary melanoma of tongue can be made only after excluding any other suspicious cutaneous or mucosal lesions. Distinction between primary oral melanoma and a metastatic deposit from a skin primary will affect management plan and outcome. In our case, no skin lesions were present. There was no history of any lesions either in the skin or other mucosae.
prognosis include early asymptomatic phase and difficulty in achieving wide radical excision.\textsuperscript{[8]}

Hence, consideration of malignant melanoma in the differential diagnosis of pigmented as well as non pigmented lesions of tongue and oral mucosa is important regardless of the age of the individual. Thorough clinical examination followed by histopathological and immunohistochemical study in suspicious lesions is imperative to rule out oral melanoma.

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