

Malignant Melanoma of Oral Cavity

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ABSTRACT

Oral malignant melanoma is a rare neoplasm of melanocytes commonly affecting the middle age group and it is more common skin rather than oral cavity. Oral malignant melanoma is a rare aggressive neoplasm of the middle age. This malignancy commonly affects males and it is more frequently seen on the hard palate and gingiva.

Keywords: Oral cavity, Melanoma, Neoplasm.

INTRODUCTION

Malignant melanoma (MM) is a neoplasm of epidermal melanocytes, which are located primarily in the skin and mucosa. Cutaneous melanomas are more common rather than the oral melanomas^{2,3}

It is more common on white skinned individuals than the dark skinned ones and the lesion accounts for 0.2 % of all melanomas but it is extremely rare in United States.

In oral cavity it represent less than 2% of all melanomas

The Japanese, Black Africans, Native Americans, and Hispanics are most commonly affected by oral melanomas¹³

Etiology

The factors affecting the cutaneous melanoma are environmental and genetic factors which may have a positive familial history^{1,12}. Etiology for oral mucosal melanomas was unknown

and there was no relationship between any physical or chemical events⁷. But sometimes intraoral melanocytic proliferations (nevi) may be the source for oral malignant melanomas

In 1975 Clark postulated the 2 growth pattern for melanoma

Radial growth phase – In this phase the neoplastic cells are limited only to the epidermis and some may enter into the basement membrane destroying host cell immunologic response

Vertical growth phase – In this where neoplastic cells populate the underlying dermis metastasis is possible in this phase

Types of melanomas

Cutaneous melanomas – superficial spreading melanoma, nodular melanoma, lentigo maligna melanoma and acral lentiginous melanoma

ABCDE rule of melanoma – asymmetry, border, color, diameter and elevation

Clinical features

There are 5 clinical types - pigmented nodular, pigmented macular, pigmented mixed, nonpigmented nodular and nonpigmented mixed type^[14].

Malignant melanoma may occur with or without radial growth phase^[2]. The color may be uniform and some lesions appear as black, grey, purple, or even reddish. The lesions are asymmetric, irregular in outline, and occasionally multiple. The surface architecture varies for oral melanomas ranging from nodular and macular to ulcerated^[4,5,7].

Amelanotic oral malignant melanoma (AOMM): some tumors are amelanotic which is of rare type. Lesion is erythematous or pink, sometimes it may be eroded or nodule. But the diagnosis of the lesion may be confused with other tumors, only by the histopathological examination the final diagnosis of the lesion can be made^[15].

Pain is an uncommon symptom of malignant melanoma, generally found in the advanced stages^[3,5,8]. The tumor causes extensive destruction of the underlying bone in 78% of cases^[5].

Histopathological features

Abnormal melanocytes are seen in the epithelial and connective tissue junction and there is a high density of melanocytes, atypical cells present in the oral melanotic lesion which is diagnosed as oral malignant melanoma.⁶

In amelanotic melanoma, the melanoma cells have melanin granules but there is no production of melanin is seen. This less production causes difficulty in diagnosing as it may represent some other tumors.

Immunohistochemical studies show S-100 protein, MART-1, and HMB-45 reactivity of the lesional cells in melanomas from other malignancies^[6].

Diagnosis

Diagnosis of melanoma may be difficult because of its small biopsy size, lack of clinical or may be due to variety of reasons⁷. CT and MRI studies were done to know the metastases occurring in the cervical and submandibular lymph nodes. Incisional biopsy is most common choice for diagnosis^[4].

Differential diagnosis

Differential diagnosis of oral melanomas are oral melanotic macule, smoking-associated melanosis, medication-induced melanosis, melanocytic nevi of the oral mucosa, blue nevi, nevi of Spitz, Addison's disease, Peutz-Jeghers syndrome, amalgam tattoo and many other conditions.

Management

Surgery excision is first line of treatment, but it is difficult due to anatomic restraints. Jaw resection and lymph node dissection is done when the bone or lymph nodes are involved. Chemotherapy and radiotherapy were the other forms of treatment⁴⁻⁶.

Prognosis and survival

Oral melanomas have poor prognosis than cutaneous melanomas. Cutaneous melanomas can be graded by Clark levels or the Breslow tumor thickness grading system. The Clark classification assesses the depth of invasion, whereas Breslow system measures the thickness of the tumor and depth of the tumor from the surface epidermis. When the tumor thickness is increased there is a high risk for developing metastatic lesions.

Both these systems show the 5 year survival rate. Factors that are significant in disease survival include high clinical stage at presentation, tumor thickness greater than 5 mm, absence of melanosis, presence of vascular invasion, development of nodal and distant metastases.^{5,6,8}

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