Malignant Melanoma: A Case Report

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ABSTRACT

Introduction: Primary malignant melanoma of the oral cavity is a rare neoplasm that arise from a benign melanocytic lesion or de novo from melanocytes within otherwise normal skin or mucosa. Melanoma is third most common skin cancer, but it account for only 5% of the total. The tumors tend to metastasize or locally invade tissue more readily than other malignant tumors in the oral region. The survival of patients with mucosal melanomas is less than for those with cutaneous melanomas. Tumor size and metastases are related to the prognosis of the disease. Early detection, therefore is important.

Case Report: A 62 years old male patient with chief complaint of pain and swelling of two months duration in right posterior mandibular alveolus. The article discusses the distinct clinico-pathologic presentation of this case and emphasizes on the need to identify and report such cases for further understanding of their biologic behavior.

Conclusion: Early diagnosis is very important for better survival and prognosis in oral melanoma, thus early detection of oral melanoma is very critical, whose goal will be achieved byself-examination training and early detection of suspected melanotic lesions by dentist and physicians.

Keywords: malignant melanoma, metastases, alveolus, pigmented area, melanocytes

INTRODUCTION

Oral melanomas are extremely rare and infrequent neoplasms that are highly malignant and aggressive in nature having an obscure etiology,[1,3,6,7] with an annual incidence rate of 1.2 cases per ten million.[2] Despite a marked rise in the frequency of melanomas in the last 30-40 years and continuous upsurge in USA, Canada, Australia, Asia and Europe[5], the fundamental prevalence is amongst the white population.[2] Mucosal melanomas (22–32% of all melanomas) are also frequently encountered in the Japanese population.[3] The earliest case report of oral melanoma in the English literature dates back to the year 1885.[5] A large number of reported cases (80%) were confined to the maxilla with gingiva, hard palate and alveolar ridge being the predominant sites. Few of the cases have been described in the mandibular region as well.[1-4,8,9] Most cases of oral melanoma occur between third and seventh decade of life with a mean age of 45-60 years[1-3] and a slight male predilection has been reported.[5] Oral melanoma accounts for 1-2% of all oral malignancies[1,4] and 1.6% of all the malignancies in head and neck region.[11]

The lesion can present itself with variable clinical features and the patients usually complain of swelling, pain and discomfort in the area, poorly fit prosthesis, bleeding, ulceration etc.[5] These tumours may exist as black, gray, blue and even red (when it is non melanotic) elevated or smooth lesions having dimensions more than 6mm.[1] They are dissymmetrical having an aberrant outline and are occasionally multiple. Oral melanomas have poor prognosis much worse than cutaneous melanomas, having a 5 year survival rate of 5-20%.[1] Metastasis has also been frequently reported in abundant cases.[2,3]

CASE REPORT

A 62 years old male patient reported to the department of oral and maxillofacial pathology, Dr R.A.D.C and HOSPITAL, Kolkata with chief complaint of pain and swelling of two months duration in right posterior mandibular alveolus.

The past medical and dental history was non-contributory, Habitual history of Bidi smoking (20-22/day), occasional pan with zarda chewing.

INTRAORAL FINDINGS

Intraoral examination Image I (1) revealed broad based sessile, smooth surfaced gray to black colored exophytic growth of rubbery consistency located on right posterior edentulous ridge of the mandible extending from 46 to 48.In palpation patient did not revealed any tenderness and bleeding.

EXTRA ORAL FINDINGS

Extraoral examination Image II revealed enlarged, hard and mobile ipsilateral submandibular and cervical lymph node on palpation. Clinical diagnosis of malignant melanoma was made.

Investigations:_Radiograph and FNAC of right submandibular lymph node

Orthopantomogram Image III showed an ill defined, non scelerotic radiolucent area of 2 X 3 cm under the tumor like mass extending from 46 to 48.

FNAC of right sub mandibular lymph node image IV showed that smears are loaded with malignant cells. There are multiple clumps and dense population of malignant cells on the dense inflammatory background admixed with extensive both intra and extracellular melanin pigment. The cells have oval to spindal nuclei with hyperchromasia and prominent punched out nucleoli abundant pigment laden cytoplasm.

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DISCUSSION

As opposed to cutaneous melanoma which is linked with sun exposure, the cause of oral melanoma is unexplained. Though nevi are contemplated as probable originators of few melanomas, the progression of this event is unsatisfactorily known and presently most melanomas are thought to arise de novo.[9] Alike squamous cell carcinoma, the role of carcinogens associated with tobacco and chronic irritation from poor fit prosthesis has been implicated in their emergence. The physiological pigmentation can possibly be an outcome of either physical or chemical stimulation or both. Axel and Hedin have suggested that physical and chemical stimulation can lead to the increased production of melanocytes which in turn may result in oral pigmented lesions.

The relative inaccessibility of the mucosa to self examination often delays diagnosis, results is 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 biologic behavior of oral malignant melanoma is particularly problematic.[20,21]

Malignant melanomas of the oral cavity represent only 0.2% to 8% of all malignant melanomas with poorer prognosis than their cutaneous analogues. Primary mucosal melanoma may present anytime after the age of 30 years with a peek incidence in the seventh decade and a mean age of 61 years, which is older than that of skin melanomas. There is a notable male predilection in mucosal melanomas with the males being affected 3.5 times more commonly than females.

Most melanomas are asymptomatic swelling with pigmentation is usually the initial sign of oral malignant melanoma. Oral malignant melanoma may be uniformaly brown or black or show variation in colour with black, brown, gray, purple and red shades or depigmentation. Focal pigmentation preceding development of actual neoplasm frequently occurs several months to several years before clinical symptoms appear.[3,4,10] In the late course of disease, pain ulceration and bleeding may be present. The oral melanoma shows uniform epithelial thicking instead of rolled borders because the atypical melanocytes exhibit pagetoid mode of spread.

The so called ABCDE checklist { asymmetry, border irregularity, colour variation, diameter greater then 6mm, 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 melanoma[10]

Involvement of jawbones by primary and secondary melanoma radiographically is very rare.[23] However, when they do involve the bone, they are indistinguishable from osteomyelitis, while others have an appearance found with any other lytic malignant tumor.

The differential diagnosis of pigmented lesions of oral mucosa include tattoo [amalgam, graphite], oral melanotic macule, nevi, melanoacanthoma, and melanoma

A simple TNM clinical staging, recognizing three stages,has shown to be of prognostic value. A recent histopathological micro staging for Stage I sub classifies it into three levels.[1,11,12]

Stage I: Primary tumour present only (Tany N0M0).

Level I: pure in situ melanoma without evidence of invasion or in situ melanoma with “micro invasion,”

Figure-1: Intraoral view

Figure-2: Extraoral view

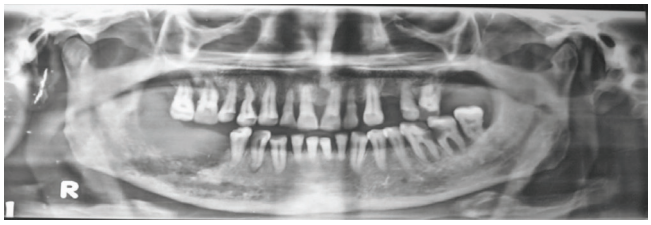

Figure-3: OPG of the jaws

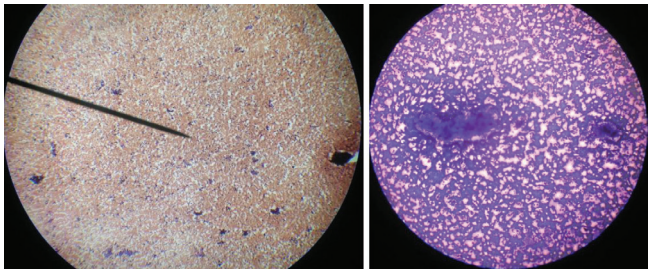

Figure-4: FNAC of submandibular lymph node

Level II: invasion up to the lamina propria,

Level III: deep skeletal tissue invasion intoskeletal muscle, bone, or cartilage.

Stage II: Tumour metastatic to regional lymph nodes(Tany N1M0).

Stage III: Tumour metastatic to distant sites (TanyNany M1).

TREATMENT

The management of oral melanoma is still debatable. Excision of the primary lesion involving at least 1.5 cm of the surrounding healthy tissue with an intraoral approach is usually advocated.[3] In 25% of primary oral melanoma cases, lymph node metastasis has been reported.[1] Radical Neck dissection should be reserved for those cases in the which lymph node metastasis has been confirmed pre-operatively and the choice of neck dissection modality should be governed by the extent of nodal involvement.[6] Surgery can be augmented with radiotherapy, chemotherapy,or immunotherapy. Though oral melanomas are regarded as poorly radiosensitive, postoperative radiotherapy is usually suggested in cases having poor prognostic pathologic features like multiple positive nodes or extranodal spread of metastastic melanoma. Other irradiation procedures like intraoral mould (60Co, 192Ir, or198Au), intraoral electron beam or interstitial brachytherapy have also been employed.[4] Dacarbazine, platinum analogs, nitrosoureas, microtubulartoxins, dimethyl triazeno imidazole carboxamide(DTIC), nimustine hydrochloride, or vincristine have been used in adjuvant therapy or postoperative chemotherapy. Varied outcomes have been demonstrated by IFN-α2b, IL-2, BCG, anti-Fas antibody, IL2, and cytokines.[7]
With a previous known record of poor prognosis, patients exhibiting primary oral melanomas presenting with features such as tumor thickness greater than 5 mm, displaying vascular invasion, necrosis, polymorphous tumor cell morphology and the inability to properly resect these lesions with negative margins are associated with low survival rates.[7] Gingival melanoma has an improved 5-year survival rate than palatal melanoma[8] and recurrences have been reported even 10–15 years after the primary therapy. Distant metastases to the lungs, brain, liver, and bones has also been observed in many instances.[5]

CONCLUSION

Most oral melanomas are asymptomatic and painless in early stages, and unfortunately, diagnosis is delayed until symptoms such as swelling, ulceration and bleeding occur. Because early diagnosis is very important for better survivaland prognosis in oral melanoma, thus early detection of oral melanoma is very critical, whose goal will be achieved byself-examination training and early detection of suspected melanotic lesions by dentist and physicians.

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