Primary malignant melanoma of the oral cavity. Report of an unusual case

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Abstract
Primary malignant melanoma is only rarely found in the oral cavity (estimated at between 0.2 and 8 per cent of all melanomas) and occurs approximately four times more frequently in the oral mucosa of the upper jaw, usually on the palate or alveolar gingivae. A case is reported of a malignant melanoma in the mouth of a 74 year old male, which was originally diagnosed as reactive denture hyperplasia caused by an ill-fitting upper denture. Correction of the denture fault failed to stop the growth of the mass, which was therefore removed surgically. Histological examination revealed a melanin-producing tumour. A partial maxillectomy was performed and there was no evidence of recurrence over a three year follow-up period.

Key words: Malignant melanoma, oral mucosa, maxillectomy, case report.

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Introduction
Primary malignant melanoma of the mouth is an extremely rare tumour arising from the uncontrolled growth of melanocytes found in the basal layer of the oral mucous membranes.1-2 Its actual incidence in the population at present is unknown but is estimated to vary widely between 0.2 per cent and 8 per cent of all melanomas and 0.073 per cent of all cancers.1,3-7 Nearly 80 per cent of oral melanomas arise in the mucosa of the upper jaw, with the majority occurring on keratinizing mucosa of the palate and alveolar gingivae.2,5

The clinical presentation of this condition can vary widely, from a typically pigmented macular or proliferative lesion, to a non-pigmented, soft vascular tumour, single or multiple, primary or metastatic.6,8,12 Non-pigmented forms of malignant melanoma often cannot be distinguished clinically from other benign or malignant oral tumours and only biopsy can establish the diagnosis.8,12,14 The purpose of this article is to present a case of an unusual melanoma of the mouth which was initially thought to represent a reactive mucosal proliferation, as well as to emphasize the necessity for early recognition and treatment of this lesion.

Case report
A 74 year old male was referred to the University Clinic of Oral and Maxillofacial Surgery in December 1992 for the management of an oral mucosal lesion that had been diagnosed histologically as a malignant melanoma. Approximately three months prior to his referral the patient had discovered an exophytic hyperplastic mass of normal colour on the gingivae of the middle portion of the upper alveolar ridge, which was occasionally traumatized and which bled during mastication. The lesion had been considered to be denture-induced reactive hyperplasia due to chronic trauma by the patient's ill-fitting denture. Although relining and denture reconstruction had been carried out, the lesion continued to grow. Therefore, surgical excision of the mass was performed. Routine microscopic examination of the specimen showed a melanin-producing tumour, consisting of atypical irregularly elongated spindle- and oval-shaped melanocytes, exhibiting uniformly dark, enlarged and irregular nuclei. In the superficial layers of the tissue a junctional naevus with pigmentation was found. The diagnosis of an invasive melanoma arising most likely from a pre-existing junctional naevus was made and the patient was referred to the Oral and Maxillofacial Clinic for additional therapy.

Intra-oral examination ten days later revealed a mucosal ulceration, measuring 30×10 mm, in the area of surgery. Dark characteristic papules were also noted growing rapidly at the periphery of the lesion (Fig. 1). Cervical examination was negative.

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Fig. 1. – The ulceration on the upper alveolus and the dark papules presented at its periphery a few days after the excision of the tumour.

Fig. 2. – a, Low-power view of the lesion showing malignant cells in vertical growth phase in the epithelial region (H&E ×100). b, High-power view of the lesion (H&E ×400).
for lymphadenopathy. Physical examination findings were likewise normal. A panoramic radiograph and computerized tomography (CT) showed no bone destruction of the hard palate. A CT examination of the neck, chest and abdomen, bone scanning, and ultrasounds of the liver and kidneys were normal, excluding any distal metastases.

The lesion was removed with partial maxillectomy. The histologic examination of the specimen confirmed the initial diagnosis of an invasive melanoma of the oral mucosa (Fig. 2a, b). The underlying bone was intact. The patient has been followed up with no evidence of recurrence or metastasis either clinically or radiographically, three years after the tumour’s resection.

Discussion

Oral malignant melanoma may demonstrate significant heterogeneity in morphological features, developmental process and biological behaviour. In this case, the patient had a history of a continuously growing exophytic hyperplastic mass of normal colour, which had been attributed to irritation by the patient’s ill-fitting denture. The histologic examination of the excised lesion revealed the presence of an invasive melanoma in association with a junctional naevus of the oral mucosa.

Intra-oral naevi are uncommon lesions and, although their malignant transformation is less well supported than those of the skin, it is accepted that malignant melanoma may arise from neoplastic transformation of either melanocytes or naevus cells. In the oral cavity intramusculosal naevi are the most commonly seen, followed by the common blue naevus, while compound and junctional naevi occur rarely in the oral mucosa. They usually occur on the hard palate and less frequently in the buccal and labial mucosa, gingiva and alveolar ridge, and may present as small, elevated papules, frequently non-pigmented up to 20 per cent.

This fact may make it difficult to clinically appreciate malignant changes and the development of underlying melanoma in such lesions. Thus only biopsy can identify those with malignant potential.

The final histopathologic report after total removal of the rest of the tumour confirmed the initial diagnosis of an oral melanoma. Surgery remains the most effective treatment for malignant melanoma and aggressive surgical control of local disease may result in prolonged disease-free survival. 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.

The dismal prognosis of the condition may be attributed to incomplete resection due to anatomical limitations in association with its long and silent course.

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 per cent and 20 per cent with a steady decline in survival after the traditional measure of five years. 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.

References


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