

# A Blackish Gingiva Revealing a Metastatic Melanoma of the Oral Mucosa

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## Abstract

**Background and Objective:** Malignant melanoma is the most aggressive skin cancer because it has very strong metastatic power. Endobuccal localization is very rare. Its discovery is often made in the late stage, which leads to a consistently pessimistic diagnostic. We report a case of palatal melanoma at the metastatic stage. **Case Report:** A 43-year-old woman presented left lateral cervical swelling associated with dyspnea for 5 months. She had regularly taken chewing tobacco for 4 years and had developed blackish gums. The endobuccal examination showed a blackish non-haemorrhagic swelling of 5 cm of the long axis, located at the level of the palatal vault, associated with pigmentation in teeth 21, 22, and 23. The anatomopathological examination confirmed the melanoma. The spreading assessment revealed pleural and hepatic metastasis. The proposed treatment was palliative treatment. The patient died 2 months later. **Conclusion:** Melanoma of the oral mucosa is a very aggressive tumor. The scarcities of dental care among the Malagasy people exacerbate the delay in diagnosis. Its management is still challenging in Madagascar.

## Keywords

Oral Malignant Melanoma, Palate, Madagascar

## 1. Introduction

Melanoma is a highly aggressive tumor of melanocytes [1]. Primary Melanoma of the Oral Mucosa (MOM) is a neoplasm that develops from melanocytes pre-

sented in the basal layer of the oral mucosa [2]. On the contrary to cutaneous melanoma, studies have reported that males and individuals aged between 50 and 70 years are prone to MOM. The frequency of MOM was high among Indians, Africans, Americans, Japanese, Caucasians, and Chinese due to increased melanin pigmentation in the oral mucosa [3]. Significant etiological factors are not known for MOM; however, literature has reported that alcohol consumption, tobacco use, cigarette smoking, and denture irritation may play a significant role in the occurrence of MOM [4]. It is a rare tumor representing 0.5% of all oral cancers and 0.8% to 1.8% of all melanomas [5]. Palate (34.29%) was the most commonly affected site in MOM patients [1]. MOM is usually asymptomatic in the early stages. Pain, bleeding, and ulceration occur at advanced stages of MOM [1]. The overall 5-year survival rate of this disease is ~6.6% - 40% [3]. Treatment by surgery is the norm but difficult. Malignant oral melanoma is aggressive with strong metastatic power. We report a case of oral melanoma, from the outset metastatic, in a Malagasy woman.

## 2. Case Report

A 43-year-old woman was sent for consultation for blackish gum staining associated with swelling of the palate. The patient showed a pigmentation of the gums that had been neglected for 3 years, which was followed by a rapid swelling in the palate. The swelling was not painful but bothered the patient during feeding. The medical conditions were associated with altered physical condition and dyspnea at rest, one month later. In her medical history, we have noted chewing tobacco intake over the past 20 years, dental care was irregular. The patient had no personal or family story of cancer, no hypertension, and heart failure stories. She has never had surgery.

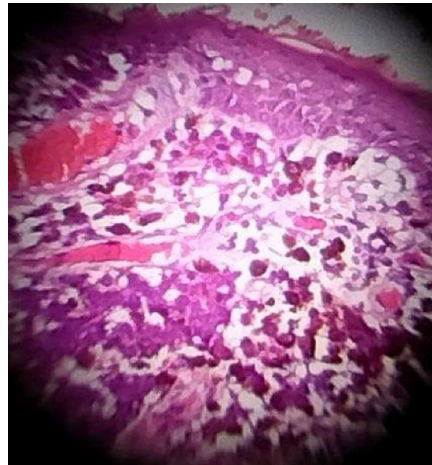
On oral examination, teeth 21, 22, and 23 were surrounded by gingival and vestibular pigmentation (**Figure 1**). The hard palate was the site of around, budding swelling of heterogeneous brown color, 3 cm in diameter, with a smooth non-ulcerative surface and an irregular edge (**Figure 1**). On palpation, the tumor was soft and easily hemorrhagic. Multiple adherents and non-inflammatory lymph nodes were perceived in the left lateral cervical and bilateral axillary region. Pulmonary auscultation revealed a massive pleural effusion syndrome of the right pulmonary field. Oral melanoma was evoked and then confirmed in histology by melanocyte proliferation with the invasion of the mucosa and chorion (**Figure 2**). The spreading assessment revealed hepatic and pleural metastases on thoracic and abdominal computed tomographic scans (**Figure 3**). She was put on palliative treatment with a combination of analgesics, corticosteroids, and drainage catheterization, and then died 2 months later after a major deterioration in general condition.

## 3. Discussion

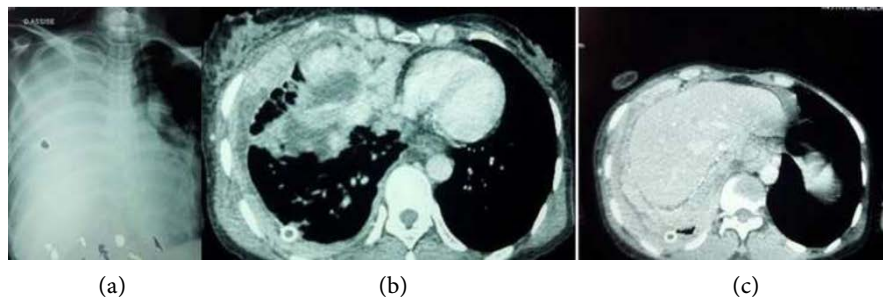
The oral cavity is the site of many malignant tumors, the most frequent of which



**Figure 1.** Teeth 21, 22, 23 surrounded by gingival and vestibular pigmentation and a rounded, budding swelling on the hard palate.



**Figure 2.** Atrophic epithelial lining, chorion site of tumoral proliferation with rounded cells, eosinophilic cytoplasm, marked cytonuclear atypia, organized in theca, sometimes tattooed with melanin pigments.



**Figure 3.** (a) Chest X-ray with large pleural effusion; (b) Chest CT with metastatic lung mass; (c) Abdominal CT scan with multiple hepatic nodules.

is squamous cell carcinoma in 94% of cases. Although it is rare, oral melanoma accounts for 0.5% of malignant tumors in the oral cavity and is most commonly found in men around the age of 50 [1]. This is the first case of MOM reported in Madagascar. Melanocytes derive from the neurectoderm and migrate mainly to the skin, retina, uvea, and other mucous membranes that are of ectodermic origin. Migration to endoderm-derived organs such as the rhinopharynx, larynx, oesophagus, and oral cavity is very rare [6]. In the oral cavity, the hard palate and maxillary gums are the preferred sites for melanoma, with less impact on the

mandibular gums, oral mucosa, and the mouth floor [7]. Cigarettes, prosthesis irritation, and alcohol were proposed as risk factors, but the correlation was not corroborated and the risk factors remain unclear. In addition, chewing tobacco contains more than 28 carcinogenic chemicals and increases the risk of oral cancer by 50 times. These substances include nitrosamines, croton, aldehyde, benzo-a-pyrenes, and polonium-210 [2]. Direct contact of the gingiva with chewing tobacco may contribute to the onset of MOM in our case. One-third of the patients had a history of preexisting oral pigmentation before the diagnosis of mucosal melanoma [8]. This was the case with the patient in our observation. The circumstances of discovery are bleeding, pain, dental mobility, or delayed healing after extraction. This implies the important role of dental surgeons in the diagnosis of MOM [8] [9]. Signs occur after the rupture of the overlying epithelium caused by a haemorrhage or ulceration that worsens the prognosis. The clinical presentation of MOM is very variable. The color can be dark brown, black, blue, or black and only in 5% of cases are the lesions achromic. The lesion may be solitary or multiple, macular or swollen, raised or not from ulceration. Histologically, melanocytes are atypical and take on a fusiform, plasmocytoid, epithelioid, or clear appearance [5]. Immunohistochemistry is necessary for achromic melanoma using the S100, the HMB45 (hematropine methylbromide), and the Melan-A (Mart-1) markers [10]. The differential diagnoses are other forms of pigmented oral pathology, including drug-disease or smoking-associated melanosis, oral melanotic macule, Kaposi's sarcoma, physiologic or racial pigmentation, melanocytic nevus and melanoacanthoma [11]. The prognosis for MOM is very pessimistic as the 5-year survival rate of patients remains low and is estimated between 5% and 20% after diagnosis. This pejorative prognosis is due to a delay in diagnosis. This is because the mucosal surfaces of the oral cavity are not systematically self-examined [12]. In our patient, black gums were hidden by chewing tobacco. The lesion remains essentially asymptomatic and continues to develop slowly over a certain period of time or even several years (3-years in our observation). MOM is diagnosed, on average, 9 months after symptom onset and the Breslow index is higher than 4 mm. Irregular visits to the dentist exacerbate the delay in diagnosis [13]. Surgical treatment is the core of treatment, whether or not combined with chemotherapy, radiotherapy or immunotherapy [8] [14]. Only Dacarbazine is available in Madagascar but is rarely prescribed because it is expensive and does not improve life expectancy.

#### **4. Conclusion**

Melanoma of the oral mucosa is a rare but very aggressive tumor. Auto-detection is almost non-existent. The scarcity of dental examinations exacerbates the delay in diagnosis. The treatment is still challenging, especially in the absence of immunotherapy. The role of chewing tobacco is not to be underestimated and will have to be studied in a cohort study to identify the factors that favour MOM. The oral cavity should be carefully examined during consultations, especially in

dermatology, to detect at an early stage any possible melanoma lesions, however discrete they may be.

## Consent

We report that we obtained an informed consent from the patient's family for article submission and publication.

## Conflicts of Interest

The authors declare no conflict of interest.

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