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# Oral Manifestation of Kaposi's Sarcoma in Patient with AIDS: Case Report

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**Abstract:** In the early 1980s, acquired immunodeficiency syndrome was recognized and described in men who had sex with previously healthy men and young people, who were affected by atypical pneumopathy caused by an opportunistic microorganism, identified as *Pneumocystis carinii*, and now known as *Pneumocystis jiroveci*, evidenced by purplish or brown nodular lesions revealed in the histopathological Kaposi's sarcoma. Kaposi's sarcoma is the most frequent neoplasm in patients with human immunodeficiency virus infection. Its pathophysiology has been associated with the presence of a herpes virus, whose etiologic agent is a member of the herpesvirus or herpes virus type 8 family (HHV-8), which can be transmitted through sexual contact, which would be implicated in the onset of the disease. This case report seeks to present the diagnosis and bring the light of knowledge to the Dentist the need to launch hands of complementary examinations and to effectively seek important therapeutic measures in the treatment of the pathology. In this case, with the start of HAART administration, the tumor regressed, leading the patient to well being, and with evident improvements in their quality of life.

**Keywords:** Acquired Immunodeficiency Syndrome, Kaposi's Sarcoma, Treatment

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## 1. Introduction

Kaposi's Sarcoma (KS) is a malignant neoplasm of vascular origin of endothelial cells, the etiologic agent of which is a member of the herpesvirus or herpes virus type 8 (HHV-8) family, which can be transmitted through sexual contact primarily among men who have sex with Exposure to contaminated blood. Initially, Kaposi's sarcoma was described by Morris Kaposi in the year 1872 as a new pathology involving predominantly male elderly patients with multiple, hyperpigmented, nodular and more frequent lesions on the extremities of the lower limbs, and in men from the Mediterranean and Eastern European region, and or endemic disease in certain regions of Africa. Currently, it is

associated with immunosuppression by HIV and / or by organ transplants. It is most commonly found on the skin of the lower limbs, visceral organs, and oral mucosa, and its epidemiology prevails in the male gender, especially in MSM (Men who have Sex with Men) and in the oral cavity, the tongue, gingiva, and palate are the most affected sites [2, 3, 8, 13, 16, 17, 22].

There are four variants of KS (classical, epidemic, endemic, and post-transplant) differ not only in course and prognosis but also in terms of sites often involved. Endemic SK can be seen in the lymph nodes and internal organs, while the post-transplant and the epidemic show

lesions in internal and mucosal organs that are usually preceded by dermal lesions. Traditionally, classic SK lesions have a general distribution, always involving the skin of the feet and legs. Patients with oral mucosal lesions may have a higher mortality rate than those with only cutaneous manifestations of KS, characterized by lesions, smooth brown or reddish purple macula and or plaques or nodules, and can disseminate to lymph nodes and organs. Mortality of oral SK lesions may be associated with pain, bleeding and functional interferences caused by the tumor [1, 9, 14, 19].

Definitive diagnosis of KS is biopsied, and KS clinical differential diagnoses include bacillary angiomatosis, pyogenic granuloma, oral nevi, lymphoma, oral hemangiomas or other benign vascular proliferations. The treatment depends on the extent and the sites affected, with cryosurgery, alpha-interferon-in-injury, local radiation and surgical excision being the most common therapeutic options [4, 7, 11, 20, 21].

HAART improves immune function and, therefore, improves the existing KS. Systemic chemotherapy treats extensive visceral involvement, which no other form of treatment can affect. The advantages of liposome formulation include increased tumor uptake. In addition, liposomes are less cardiotoxic forms. Both, Daunoxome® 40 mg/m<sup>2</sup> every two weeks, and Caelyx® 20 mg/m<sup>2</sup> every three weeks, showed good results in antitumor activity. The toxicity profile is better than other anthracyclines, without reported cardiotoxicity, even with high cumulative doses, but they present considerable myelosuppression, and occasional vomiting, and local treatments can be justified to improve quality of life, aesthetics, phonation, swallowing, Oral hygiene, restoration of masticatory function, and pain relief and hemorrhage [1, 5, 6, 18].

KS is also an opportunistic condition and the degree of immunosuppression favors the onset of the disease as observed for other opportunistic conditions of an infectious nature related to AIDS, but it is not essential for the onset of the disease [10, 12, 23].

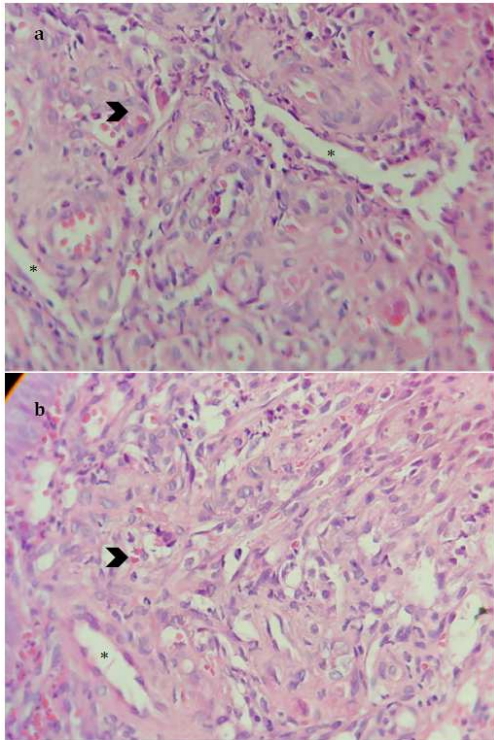
## 2. Case Report

A 28-year-old male patient, single, leukoderma, MSM, multiple partners, resulted in positive serology for HIV (performed using the rapid HIV test ½ Rapid Cheek immunochromatographic method and the HIV confirmatory rapid test ½ BIO Manguinhos, immunochromatographic method) - reagent for hepatitis C virus, and for syphilis (VDRL 1/64 and TPHA reagent) and confirmed by standard serological tests. At the time of diagnosis of the KS lesion in the tongue (figure 1), the patient was referred to the medical service for evaluation and conduct of his general condition, being performed abdomen ultrasound, chest X-ray, MRI, not detecting any changes in normality (300 mg) + lamivudine (150 mg) 1 12-12 h capsule and efavirenz (600 mg) 1 capsule (1 mg) and zidovudine (300 mg) + lamivudine (150 mg) Night, only 2 weeks, immediately

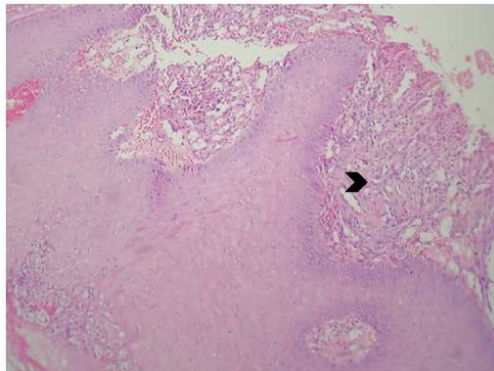
after the diagnosis of AIDS. At the time of the anamnesis, the patient presented CD4 + T-lymphocytes in 46 cells / mm<sup>3</sup> of blood, CV 490.000 copies, adynamia, generalized prostration, headache, weight loss and appetite. Physical examination was weakened and palpation in the cervical chain and submandibular showed hardened, fixed and cold lymph nodes, with the largest volume being approximately 1,2 cm in diameter. In the intra oral clinical examination, we observed lesions on the back of the tongue, extending to the bilateral border, measuring approximately 3 cm in diameter and lasting 3 months, with a brown / purplish / brownish color, and in the center of the lesion showed the ulcerated fibrinolytic and necrotic bed with borders High irregular and with fetid odor, hypersalivation, and aesthetic compromise, phonation, difficulty feeding and swallowing, resulting from the volumetric increase of the tongue. The initial procedure was to perform an incisional biopsy, and the soft tissue fragment was fixed in 10% formol, stained by PAS and sent to laboratory and laboratory analysis. The results of histopathological examination were compatible with Kaposi's sarcoma (figure 2 a and b and figure 3), evidenced by the presence of spindle cells, interspersed by vascular spaces similar to slits, and with the presence of extravasated erythrocytes. The diagnosis of Kaposi's sarcoma was closed before the clinical and laboratory findings. The patient was referred for treatment at a specialized site of the Unified Health Service (SUS) to assess the need for the introduction of chemotherapy. We chose to maintain HAART prescribed a few days previously, where the patient responded to satisfaction, presenting total involution of the oral lesion. In one month the patient's immune system responded positively, resulting in CD4 T-lymphocytes at 176 cells / mm<sup>3</sup> of blood, CV 55,000 copies. The patient was advised to return to the Infectologist and to the Dentist for monitoring, being preserved, clinically and laboratorially, without recurrence or reinfection for 14 months and until the present moment (figure 4).



*Figure 1. Injury on back of tongue.*



**Figure 2.** (a and b) - Presence of spindle-shaped cells interspersed with vascular spaces (\*) similar to slits, with presence of erythrocytes.



**Figure 3.** Neoplasia (arrowhead) observed below the surface epithelium. (100x magnification).



**Figure 4.** Tongue - Total lesion regression after 45 days of diagnosis.

### 3. Discussion

Kaposi's sarcoma is described as a malignant vascular neoplasm and at the present time is strictly related to AIDS [1, 2, 3, 8, 13, 16, 17, 22]. In addition to manifestations in lower limbs and face, other lesions in the oral cavity may also be found. It is imperative for dental surgeons to have clinical knowledge of the lesions, as it can sometimes be the first to make the initial diagnosis not only of the lesion, but also of HIV seropositivity or even AIDS, as occurred in this case [1, 9, 14, 19].

The treatment of choice of KS should be based on the extent and involvement of the lesion, and it is common to associate systemic chemotherapy with local intra-lesional applications, these being evidenced as important modifying cofactors in the remission of the lesions. HAART may help to reverse the injury, although, sometimes, new manifestations may arise, even using the therapy, there is the possibility of failure of therapy, or resistance to the drugs administered and even the abandonment of treatment and even the worsening of the disease. The encapsulation of anthracycline liposomes constitutes a considerable advance in SK chemotherapy [1, 5, 6, 12, 17, 18, 23].

### 4. Conclusion

- Kaposi's sarcoma can be diagnosed by the Dentist through clinical examination, confirming the diagnostic with achievement histopathological examination.
- It is the duty of the Dental Surgeon to have knowledge of the oral lesions that can affect the HIV / AIDS patients, mainly evidenced by the clinical characteristics compatible with each pathology.
- There are currently several forms of treatment for Kaposi's sarcoma, and it is up to the practitioner to analyze and propose together with the patient's physician the most appropriate therapy for each case.
- The association of systemic chemotherapy with local treatment (intra-lesional injections) favors the remission of lesions being an effective therapeutic option.
- Often only the fact that the patient correctly administers HAART the manifestation of SK regresses completely. Promoting health, well-being, and improvements in the quality of life of these patients.

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