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Non-Hodgkin's Lymphoma Associated with HIV Infection: Report of Two Cases.

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Abstract

Immunocompromised patients tend to develop malignant lesions in them oral cavity. During immunosuppression due to HIV, Human Immunodeficiency Virus, these patients present a significant risk of developing a malignant tumor at the level of the oral mucosa. Malignant tumors include Kaposi's sarcoma, lymphomas not Hodgkin's disease and squamous cell carcinoma.

Non-Hodgkin's lymphoma (NHL) is a heterogenous group of malignant disorders of lymphoid derivation that can be considered as aggressive and rapidly fatal. Their etiology remains unknown, although radiation, chemotherapy, viral infection and immune deficiencies have been considered as associated factors.

Immunocompromised patients, seropositive for Acquired Immunodeficiency Virus (HIV), are at high risk of developing non-Hodgkin's lymphoma type B or T.

Furthermore, NHL is the second most common, as well as the fattest increasing, malignancy associated with the human immunodeficiency virus (HIV) infections.

The 5-years survival rate for persons with NHL range from 30 to 40%. In HIV infected patients, NHL is fatal in about 80% in less than 2 years.

They are manifested in the oral cavity by gingival swelling that is rarely palatal.

These are tumors sensitive to radiotherapy as well as chemotherapy.

Their growth is rapid. A biopsy is essential to make a definitive diagnosis.

The evolution is very aggressive and the prognosis is unfavorable.

This paper reports the occurrence of two maxillary NHL associated with HIV infection.

Key words: *AIDS, HIV, Lymphoma, Maxilla, Immunodeficiency.*

Introduction

Immunocompromised patients are at high risk of developing tumors malignant in the oral cavity [1]. This risk is related to primary immunosuppression, drug cytotoxicity and immunosuppression linked to the Immunodeficiency Virus Human, HIV [1-4].

These malignant tumors are, in descending order, Kaposi's Sarcoma (SK), Non-Hodgkin's Lymphoma (NHL), Squamous Cell Carcinoma (CE) [2,4].

The malignant lesion, the most frequent observed during the Human Immunodeficiency Syndrome, AIDS, at the oral level, is Kaposi's Sarcoma [4,5].

Non-Hodgkin's lymphoma is less common in the oral mucosa [2,4].

Non-Hodgkin's lymphoma is a heterogeneous group of malignant lymphoid tumors and its evolution can be slow or aggressive and even fatal [6]. The etiology remains unknown but secondary factors can play a very important role such as: immunosuppression,

viral infection, irradiation and chemotherapy [7]. Two types of non-Hodgkin's lymphoma exist, type B and type T. In type B, it is type B lymphocytes that are incriminated, whereas in type T, it is T lymphocytes [7,8]. Non-Hodgkin's lymphoma type B is linked to viral infection with the Epstein Barr Virus (EPV) [9]. Two cases of non-Hodgkin's lymphoma observed during HIV infection are exposed in this article.

Case Report.

First case

A 33-year-old patient consults us for irradiated and continuous pain in the right maxilla. The questioning reveals that this patient consulted his practitioner two months ago for pain in the same region and he was treated for a dental infection with antibiotics. While a swelling continues to increase in volume in his mouth.

The clinical examination reveals a swelling encompassing the first and the second maxillary right molar on the vestibular side and on the palatal side. (Fig: 1).

The mass has a slightly reddish color, a multilobulated appearance and a firm, hard consistency on palpation. The corresponding molars are mobile. Adenopathy is associated.

A panoramic X-ray is requested. The X-ray shows a radiolucent image at the level of the right maxillary molars (Fig: 2).

A biopsy is decided with extraction of the two molars (Fig: 3). In parallel, a complete blood test is requested. The biopsy revealed a type B non-Hodgkin's lymphoma (Fig: 4a and 4b).

The blood test reveals a positive HIV serology (Western blot and Elisa) and a count CD4 of 32 mm 3 (normal is > 800) and CD8 of 334 mm 3 (normal is > 400) and CD4/CD8 ratio of 0.09 (normal value is >1).

The patient knew that he was HIV-positive, but he concealed his situation during the interrogation. He contracted the virus through unprotected sex with a HIV-positive woman. The patient is referred to the infectious diseases department. Undergoing chemotherapy, he received six cycles of CHOP (Cyclophosphamide, Doxorubicin, Vincristine and Prednisone). Healing is observed six weeks after the start of treatment. (Fig: 5).

Four months later the patient was hospitalized for a serious lung infection and died a week later, following generalized sepsis.

Figure 1: Palatal view of the lesion. Note the displacement of the second molar.

Figure 2: Panoramic X-ray showing bone loss around the maxillary molars on the right side.

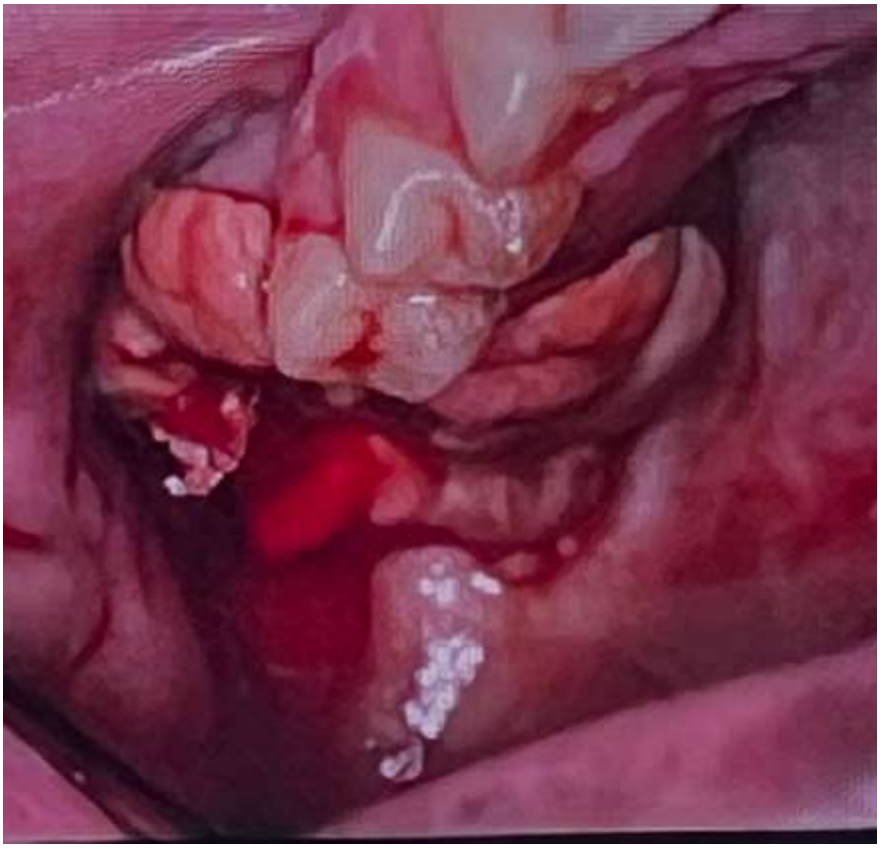

Figure 3: After extraction, biopsy specimen was taken.

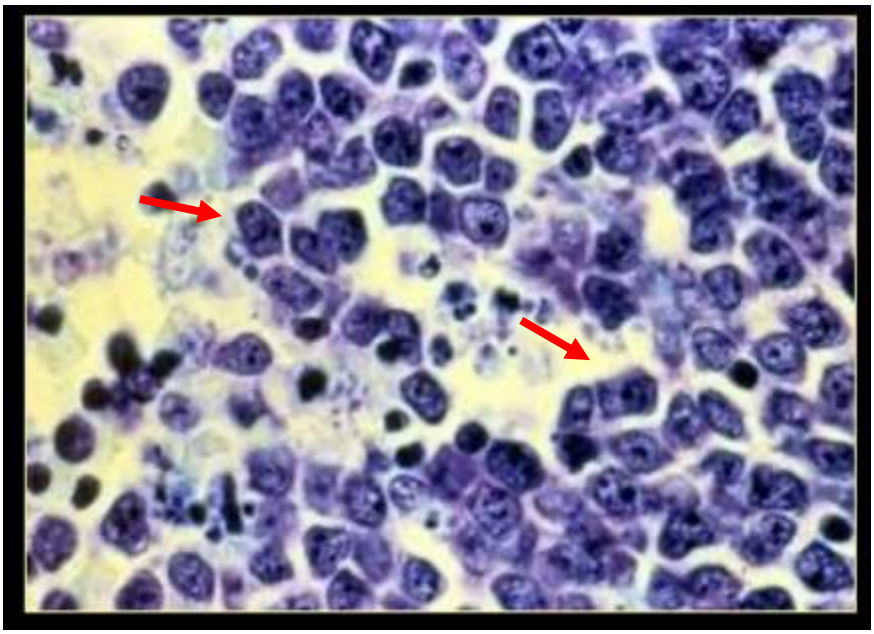

Fig. 4a: Histological section (giensa staining x 630) showing the lymphocyte population (red arrow).

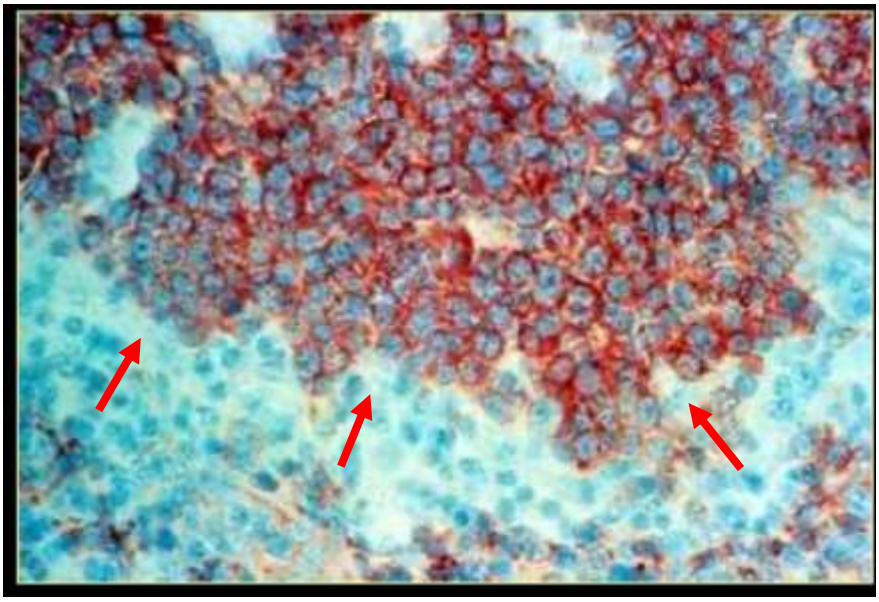

Figure 4b: Histological section (MB marker 2 x 25) identifying type B lymphocytes (red arrow).

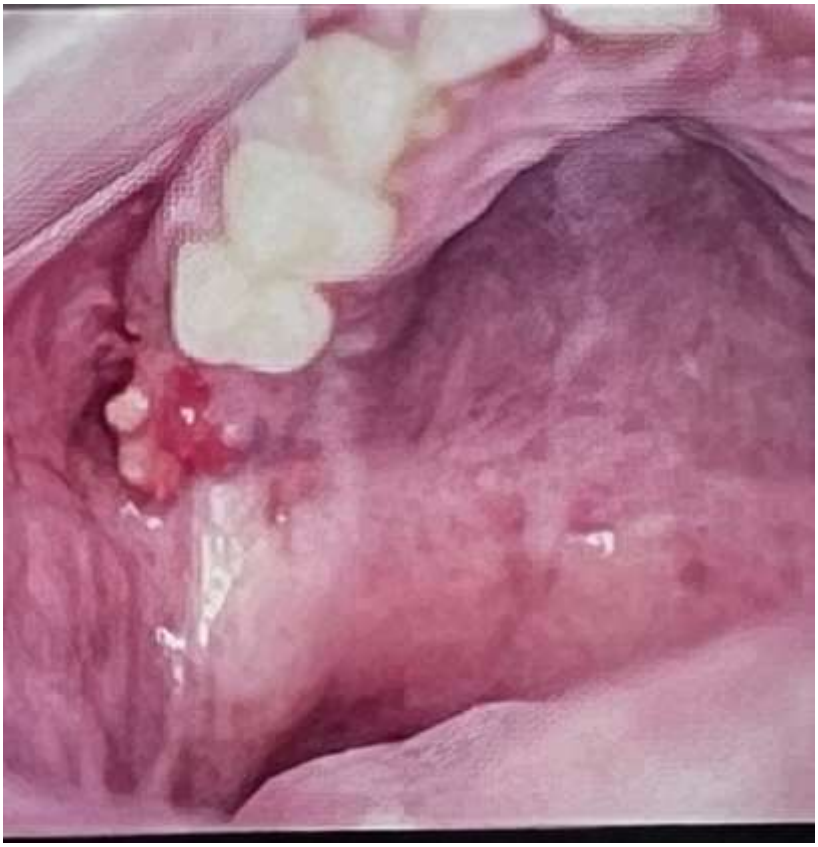

Figure 5: Clinical healing after chemotherapy.

Second case

A 28-year-old patient was referred to us by the infectious diseases department for a biopsy gingival swelling of the upper maxilla, anterior region. (Fig: 6). The differential diagnosis of this swelling was either Kaposi's sarcoma or lymphoma.

Interview reveals patient has been gay and HIV-positive for four years contracted the virus through unprotected sex. The CD4 count is 64 mm3, the CD8 is 420 mm3 and the CD4 / CD8 ratio was 0.15. A panoramic X-ray does not reveal bone destruction at the level of the antero-upper teeth. (Fig: 7).

The biopsy is performed under local anesthesia and the specimen is sent to the laboratory for a histo-pathological study. The histopathological examination revealed a type T non-Hodgkin's lymphoma (Fig: 8).

The patient's state of health did not allow chemotherapy to be instituted. He died a month later from a lung infection.

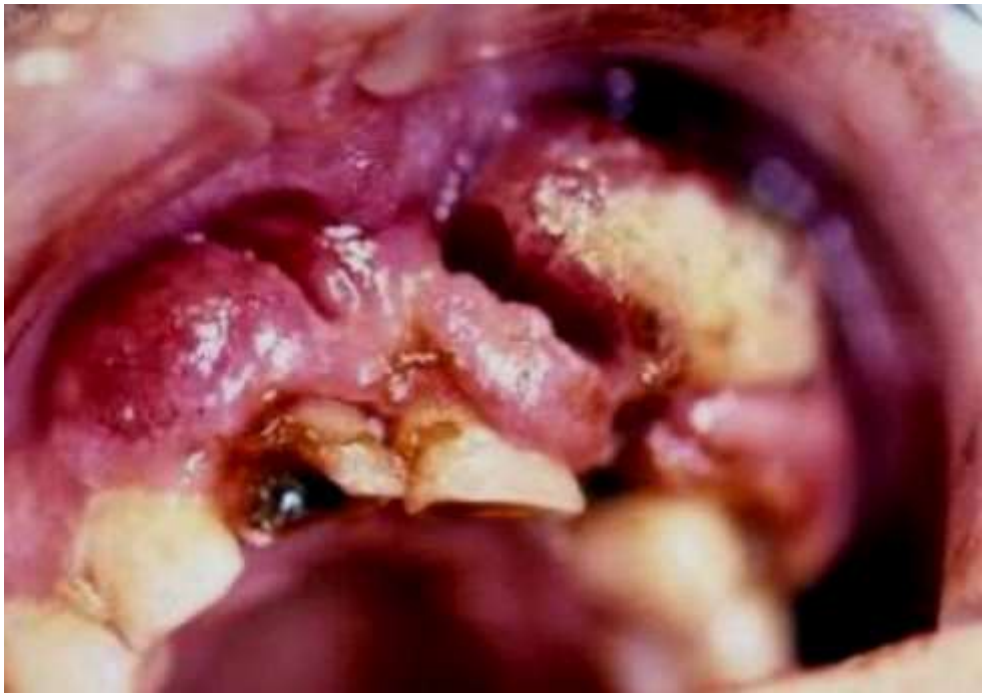

Figure 6: Clinical view of the swelling.

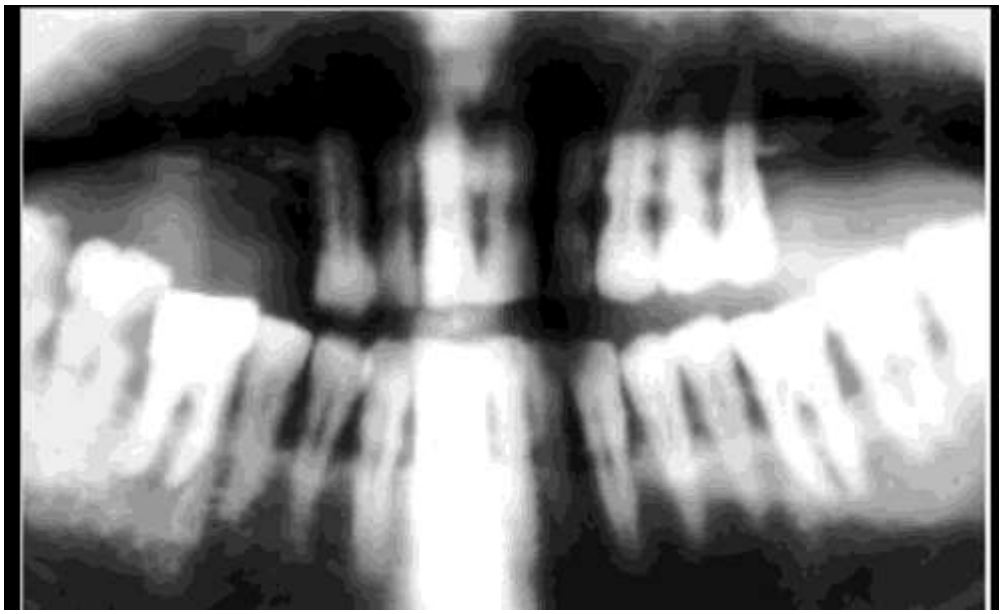

Figure 7: Panoramic X-ray of the case.

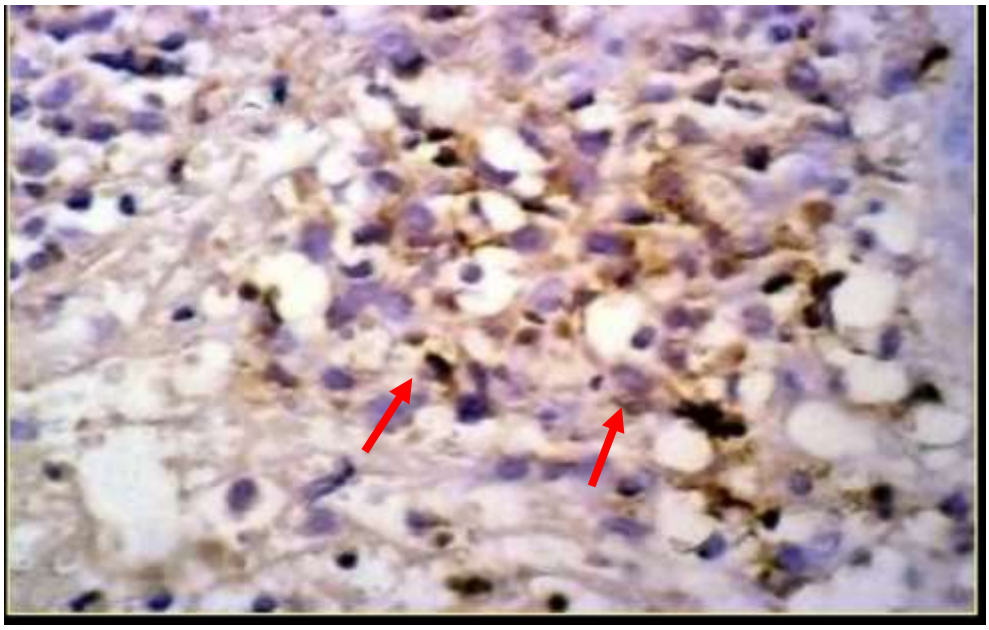

Figure 8: Histological section (Immunohistochemical techniques x 40) highlighting the T nature of the lymphocytes (red arrow).

Discussion

Immunocompromised patients may manifest non-Hodgkin's lymphoma **[**1,2,5**]**. Prevalence ranges from 26% in kidney transplant recipients to 71% in transplant recipients cardiac **[**1,7**]**. Recently a similar prevalence is reported in patients HIV-positive immunocompromised patients **[**2,3,5,9**]**. Lymphomas in HIV-positive immunocompromised patients are aggressive and their growth is rapid and their prognosis is very unfavorable **[**10-12**]**. They are sensitive tumors radiotherapy and chemotherapy **[**13**]**.

A pyogenic granuloma, a granuloma with giant cells, a sarcoma or a carcinoma must be evoked in the installation of the differential diagnosis and survival do not exceed a few months after diagnosis. **[**2,7,8,10**]**.

Which is the case with our patients. The majority of these lymphomas are type B **[**14**]**, type T is rarer **[**15**]**.

The oral localization is in the form of swelling located at the level of the gum, rarely at the level of the palate **[**10-12**]**.

Some authors link the proliferation of lymphoma and the presence of the Epstein Barr virus **[**9**]**.

For others, this presence is not obligatory, especially for T types [15].

Chemotherapy remains the treatment of choice but is associated with complications of immunosuppression such as opportunistic infections (xerostomia, fungal infection and bacterial infection...) [7].

Conclusion

Oral manifestations associated with HIV infection. should be known by practitioners. While some lesions are alarm lesions, which should evoke the disease, others are specific to it. The important role of the dental surgeon lies in the early diagnosis of oral lesions associated with HIV infection. This makes it possible to institute rapid medical treatment and ensure a more favorable prognosis for patients [16].

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