

# Non Hodgkin's lymphoma of the maxilla as a first clinical manifestation of HIV infection. Report of a case

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## SUMMARY

**Non Hodgkin's Lymphoma (NHL) of the oral cavity is rare. When it occurs, one should be suspicious of infection with the Human Immunodeficiency Virus (HIV).**

**NHL is the second most common malignancy associated with the Acquired immunodeficiency Syndrome (AIDS).**

**This report describes the occurrence of a maxillary NHL as a primary clinical manifestation of HIV infection.**

## KEY WORDS:

AIDS, HIV, Lymphoma, Maxilla.

## RÉSUMÉ

**Le lymphome non hodgkinien de la cavité orale est rare. Lorsqu'il survient il convient de suspecter une infection par le virus de l'immunodéficience humaine (HIV).**

**Le lymphome non hodgkinien est, par ordre de fréquence, la seconde manifestation de malignité associée à un syndrome d'immunodéficience acquise (SIDA).**

**Ce rapport décrit la survenue dans le maxillaire supérieur d'un lymphome non hodgkinien comme première manifestation clinique d'une infection par le HIV.**

## MOTS CLÉS:

SIDA, Lymphome, Maxillaires.

## INTRODUCTION

An increased prevalence of NHL in immunocompromised individuals has been repeatedly reported.

NHL has been found to occur in 26% of renal transplant recipients [4] and up to 71% of heart transplant recipients [4, 10].

Recently a similar increase has been noted in association with the Acquired Immuno-Deficiency Syndrome (AIDS) [5, 7, 11].

The increased prevalence is linked to immune deficiency resulting either from primary immunosuppression caused by cytotoxic drugs, or associated with infection with the HIV [1].

Although immunosuppression appears to be a prime factor in tumor development, other cofactors may be of etiologic importance [2, 5].

Virally induced growth factors may induce sustained proliferation of specific cell populations. Infection with the Epstein-Barr Virus (EBV) has been identified in B cell lymphomas [3].

This paper reports a case of NHL as a first manifestation of HIV infection in young patient.

## CASE REPORT

A 33-year old black male presented with pain in the right upper jaw. Approximately 3 months prior to presentation, he had been examined by his private practitioner for tooth pain in the same mentioned above region and he was treated for dental infection by antibiotics. Since then, a lesion was noted to be enlarging in that area. The patient reported a history of intermittent fever and a 20 pounds weight loss over a three-month period. There was no history of high risk behavior for HIV, except for sexual contact with a partner who was an injecting drug user.

Clinical examination revealed an indurated ulcerated and erythematous extranodal growth of the right upper jaw attached to the buccal and palatine mucosa, moving the right upper first and second molars which were mobile. (Fig. 1).

The patient had generalized lymphadenopathy. A panoramic radiograph revealed advanced bone loss in the right upper jaw spreading from the apices of the right upper second premolar to the apices of the right upper second molar.



Fig. 1: A close up view of the panoramic radiograph.  
*Fig. 1: Aspect radiologique de la lésion.*

Diffuse lytic lesions of the right upper first molar were noted giving the impression of «teeth floating in air» [8] (Fig. 2).

Serologic testing revealed seropositivity for the HIV. Serological numeration of his CD4 was 32 mm<sup>2</sup>, and of his CD8 was 334 mm<sup>2</sup> and ratio CD4/CD8 was 0,09.

Under local anesthesia an incisional biopsy specimen of the lesion was done with the extraction of the upper right first and second molars (Fig. 3).

Large pleiomorphic lymphoblasts were seen in light microscopy, making the diagnosis of NHL of the large cell type (Fig. 4 & 5).



Fig. 2: Clinical view of the extranodal growth.  
*Fig. 2: Aspect clinique de la prolifération tumorale.*

The patient received six repetitive cycles of chemotherapy with cyclophosphamide, doxorubicin, vincristine and prednisone (CHOP).

Complete remission was achieved (Fig. 6).

Three months later, the patient was readmitted for progressive deterioration. He succumbed 3 days later to Streptococcal septicemia.

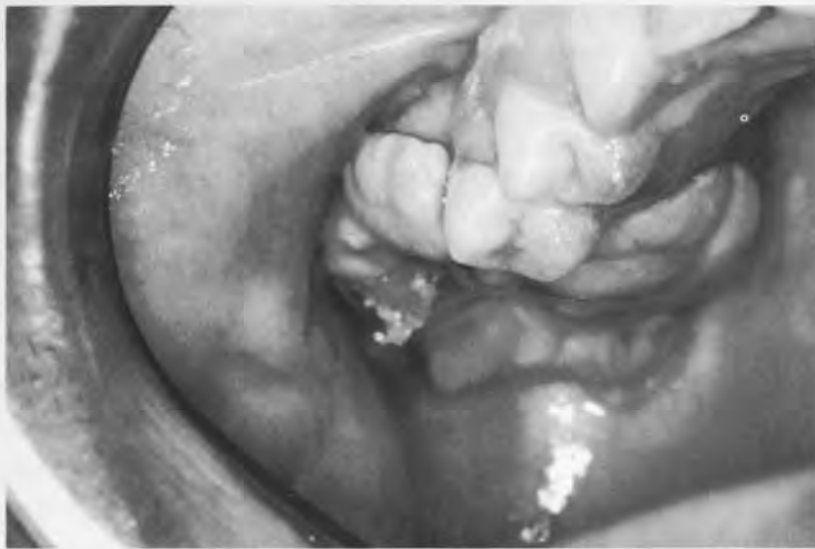


Fig. 3: The same view after extraction of the upper right first and second molars and biopsy specimen was taken.

Fig. 3: La même région après extraction des 1<sup>e</sup> et 2<sup>e</sup> molaire et la prise de la biopsie.

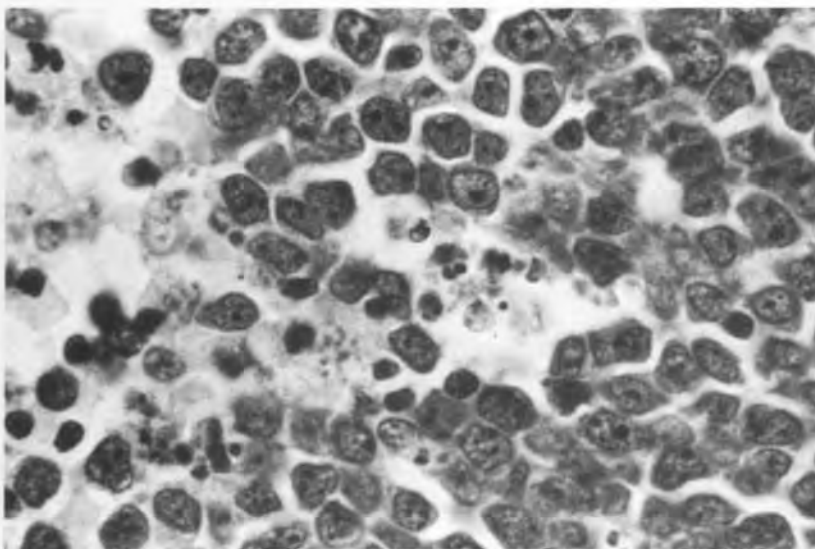


Fig. 4: Population of lymphoblasts of immunoblastic type (Giemsa coloration  $\times 630$ ).

Fig. 4: Prolifération de lymphoblastes de type immunoblastique. (Giemsa  $\times 630$ ).

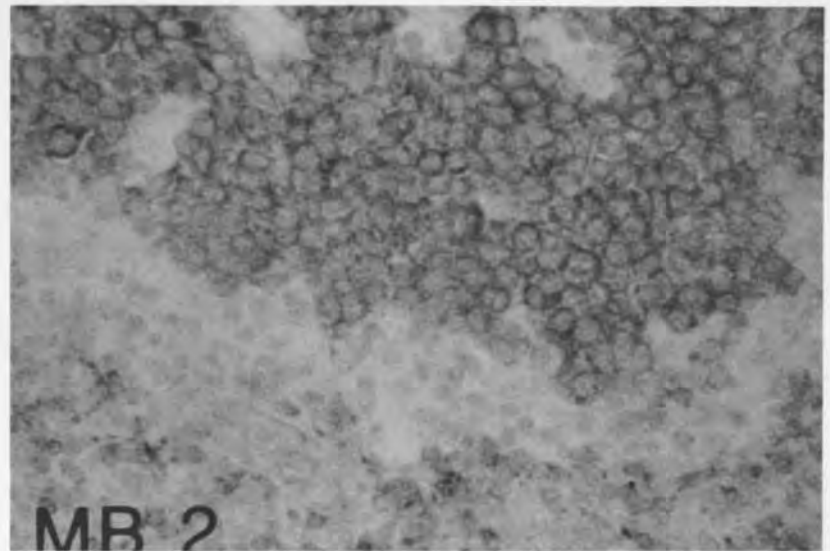


Fig. 5: Immunoblastic markers of the lymphoblastic B cells type (MB2 marker  $\times 25$ ).

Fig. 5: Marquage immunoblastique des lymphoblastes de type B. (MB2  $\times 25$ ).

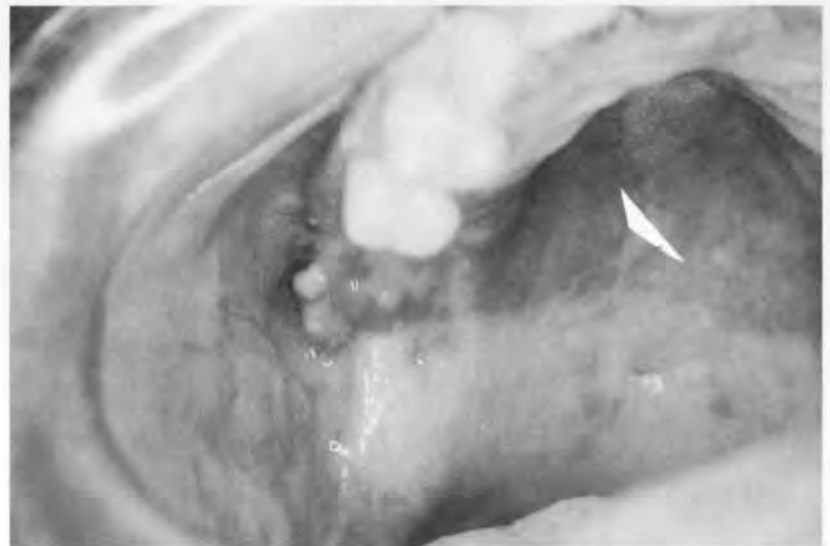


Fig. 6: Clinical view after the end of the chemotherapy.

Fig. 6: Aspect de la région de la tumeur après la fin de la chimiothérapie.

#### DISCUSSION

Before the advent of AIDS, Non-Hodgkin's Lymphoma of the oral cavity was uncommon. The intra-oral NHL is characterized by rapid growth, tendency to occur on the palate or alveolar ridge. A few reports presented one case of NHL in the palate and two involving the maxillary alveolar ridge [6].

However, a case of NHL in the left retro-molar pad area was reported [9].

Non-Hodgkin's lymphoma is reported in less than 1 percent of cases of AIDS. It is usually a B-lymphocyte neoplasia with an unfavorable prognosis. It is either of a large cell, immunoblastic or undifferentiated types [8].

A relationship with Epstein-Barr Virus infection has been suggested with EBV-DNA sequences found in some cases [3].

The dentist should recognise the pathology of the oral cavity, particularly the oral manifestations associated to HIV-infection. He should be able to participate to their diagnosis and management.

#### REFERENCES

- [1] Epstein, B.J. and Silverman, S. Jr. — Head and neck malignancies associated with HIV infection. *Oral Surg. Oral Med. Oral Pathol.*, 73: 193-200, 1992.
- [2] Gallo, R.C. — Human T-cell leukemia-lymphoma virus and T-cell malignancies in adults. *Cancer Surv.*, 3: 113-159, 1984.
- [3] Green, L.T. and Eversole R.L. — Oral lymphomas in HIV-infected patients: association with Epstein-Barr virus DNA. *Oral Surg. Oral Med. Oral Pathol.*, 67: 437-442, 1989.
- [4] Hanto, D.W., Frizzera, B., Purtilo, D.J. et al. — Clinical spectrum of lymphoproliferative disorders in renal transplant recipients and evidence for the role of Epstein-Barr virus. *Cancer Res.*, 41: 4253-4261, 1981.
- [5] Hiddemann, W. — What's new in malignant tumors in acquired immunodeficiency disorders. *Pathol. Res. Pract.*, 185: 930-934, 1989.
- [6] Hommel, D.J., Brown, M.L., Kinze, J.J. — Response to radiotherapy of head and neck tumors in AIDS patients. *Am. J. Surg.*, 154: 443-446, 1987.
- [7] Kaplan, L.D. — AIDS-associated lymphoma. *Baillieres Clin. Haematol.*, 3: 139-151, 1990.
- [8] Levine, A.M. — Non-Hodgkin's lymphomas and other malignancies in the acquired immunodeficiency syndrome. *Semin. Oncol.*, 14: 34-39, 1987.
- [9] Lozada Ovar, F. et al. — The diagnosis of AIDS-related complex in the dental office. Findings in 171 homosexual males. *C.D.A.J.*, 12: 21-25, 1984.
- [10] Penn, I. — Lymphomas complicating organ transplantation. *Transplant Proc.*, 15: 2790-2797, 1983.
- [11] Serrano, M., Bellas, C., Campo E. et al. — Hodgkin's disease in patients with antibodies to human deficiency virus. *Cancer*, 65: 248-254, 1990.

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