

# Hodgkin's Disease Involving the Gingiva in AIDS

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**Non-Hodgkin lymphomas are a recognised complication of AIDS and may involve the oral cavity. However, no case of Hodgkin's disease affecting the oral cavity in AIDS appears to have been recorded. We report a male homosexual with AIDS and Hodgkin's lymphoma, who presented with gingival involvement.**

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## INTRODUCTION

THE ASSOCIATION of malignant neoplasms with HIV infection is well-recognised, particularly with respect to Kaposi's sarcoma and non-Hodgkin lymphoma [1, 2]. The incidence of non-Hodgkin's lymphoma in AIDS patients is between at least 4 and 10% [3–6]. Sometimes this malignancy is the first manifestation of HIV infection [3–6] but it may not always be clinically manifest. Indeed, one autopsy study showed non-Hodgkin lymphoma in 20% of HIV-infected persons [7] and such lymphomas are also emerging as an increasingly common cause of death in AIDS [8].

Extranodal non-Hodgkin lymphoma is uncommon in the oral cavity in HIV-seronegative persons [9]. Non-Hodgkin lymphoma primarily located in the oral cavity or oropharynx however, has dramatically increased in AIDS as evidenced by several reports [10–18].

In contrast, any association between Hodgkin's disease and AIDS remains uncertain, though several cases have recently been published [1, 19, 21]. However, no case of Hodgkin's disease of the oral cavity in AIDS appears to have been recorded.

We present a case of Hodgkin's disease of the gingiva in a homosexual man with AIDS.

## CASE REPORT

A 42-year-old homosexual man who had been HIV seropositive since February 1986 was referred to GL in February 1991 for evaluation of a painful swelling of the gingiva present for 1 month at the right retromolar region of the mandible.

The past medical history revealed that 2 years after the diagnosis of HIV infection the patient had been started on zidovudine. However, in February 1990 he developed swellings in his left cervical lymph nodes. Immunohistological examination of a lymph node from the area, and systemic evaluation, confirmed a diagnosis of Hodgkin's disease stage

IV. The lymph node architecture had been completely effaced by a mixed cellular population consisting of lymphocytes, plasma cells, macrophages, eosinophils and mononuclear cells, as well as pathognomonic Reed–Sternberg cells (Fig. 1). The histological diagnosis was “mixed cellularity Hodgkin's disease”.

By the time of presentation, the patient had received a total of six regimens CHOP. The Hodgkin's disease had responded well to the therapy and there was a complete improvement in the symptoms and of the general condition of the patient. The CD4 lymphocyte count was 27/ml; zidovudine therapy had been stopped.

Oral examination revealed an ulcerated swelling covered by a thick whitish pseudomembrane at the vestibular gingiva of the 46 (Fig. 2). The swelling was soft and slightly painful to palpation. There were no other oral mucosal lesions of note but there was widespread periodontitis and several carious teeth. Panoramic radiography showed minimal bone loss in the area (Fig. 3).

Excisional biopsy examination of the gingival swelling showed widespread infiltration of the corium by a large number of small, medium and large lymphocytes which immunohistochemically proved to be mostly of T-cell lineage (CD<sub>3</sub>+, UCHL1+, L26–). Very few atypical mononuclear cells with prominent nucleoli, and only two Reed–Sternberg



**Fig. 1. Atypical mononuclear cells (arrowed) and typical Reed–Sternberg cell in cervical lymph node. Haematoxylin and eosin  $\times 250$ .**

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Fig. 2. Ulcerated swelling covered by a thick whitish pseudomembrane, at the vestibular gingiva of the 46.

cells were found (Fig. 4). These cells were immunohistochemically negative for LCA and positive for CD15. On the basis of these findings a diagnosis of gingival Hodgkin's disease was confirmed.

Full clinical examination and computerised tomography failed to reveal evidence of systemic Hodgkin's disease, despite the history, the patient was again given chemotherapy using CHOP (three regimens) but during that time the CD4 count was 92/ml. Unfortunately, 3 months later the patient died as a result of full blown AIDS.

### DISCUSSION

The association between non-Hodgkin lymphoma and HIV infection has been well established but the association between Hodgkin's disease and AIDS has been controversial. However, an increased incidence of Hodgkin's disease has been recorded over the past 7 years [1, 19]. A high frequency of Hodgkin's disease among intravenous drug users with AIDS has been reported in Italy by Tirrelli *et al.* [2]. They found 59 cases (10.2%) of Hodgkin's disease in a total of 580 cases of malignant tumours in patients with AIDS. The increasing incidence of Hodgkin's disease in AIDS appears to be continuing [22–24].

Oral lymphomas, almost exclusively of the non-Hodgkin variety, are now a recognised though uncommon complication of AIDS, usually presenting as a rapidly growing inflammatory

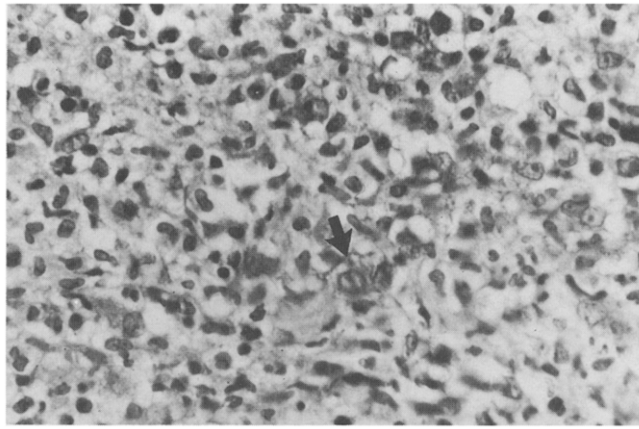


Fig. 4. Reed-Sternberg cell showing membrane positivity for CD<sub>15</sub> (arrow), among numerous lymphocytes. PAO x 250.

mass [10–18, 25–26]. Hodgkin's disease with oral involvement in AIDS patients appears however, not to have previously been reported. Clinically the oral lesion in the present case presented as an ulcerated swelling covered by a thick whitish pseudomembrane—features identical to those described in oral non-Hodgkin lymphomas in AIDS [10–18].

The clinical differential diagnosis of oral Hodgkin's disease should include non-Hodgkin lymphoma, ulcerative gingivitis, periodontal abscess, leukaemia, agranulocytosis, squamous cell carcinoma, malignant salivary gland tumours, necrotising sialometaplasia, eosinophilic ulcer, soft tissue plasmacytoma and deep mycoses. It is impossible to make precise diagnosis of oral Hodgkin's disease clinically; histopathological and immunological investigations are required.

AIDS-associated Hodgkin's disease, in contrast to Hodgkin's disease in HIV-seronegative patients, is typically in an advanced stage (III or IV), with extranodal and bone marrow involvement, and is of mixed cellularity, poorly responsive to chemotherapy and of poor prognosis [19–24, 27–29]. In addition, a significant increased expression of Epstein-Barr genome has been detected in the nuclei of Hodgkin's and Reed-Sternberg cells in AIDS-associated Hodgkin's disease [30, 31] supporting a role for Epstein-Barr virus in the pathogenesis of Hodgkin's disease in HIV-infected patients although this was not studied here.

However, it is not yet clear how close the association of Hodgkin's disease with AIDS will prove to be. More classical AIDS-associated malignancies such as Kaposi's sarcoma and non-Hodgkin lymphomas typically appear about 1 year after the onset of the immune defect in immunosuppressed patients, other tumours appear later [32]. With the longer survival of HIV-infected persons, longer duration of immune deficiency and drug treatments, it may well be that neoplasms other than Kaposi's sarcoma and non-Hodgkin lymphoma may emerge as significant problems.

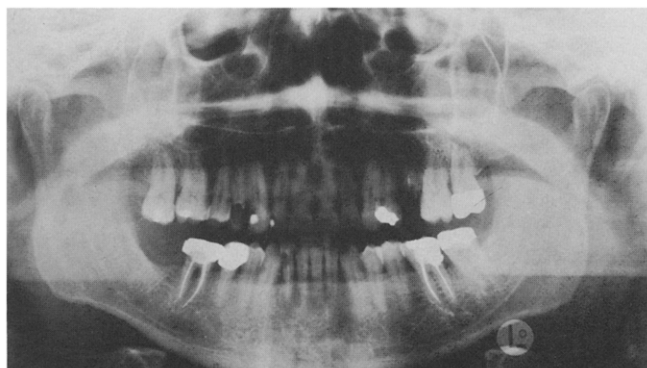


Fig. 3. Panoramic radiograph showing minimal bone loss at the 46 area related to the neoplasm.

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