BURKITT'S LYMPHOMA SHORTLY AFTER AN ACUTE HIV INFECTION, TREATED WITH HIGHLY ACTIVE RETROVIRAL TREATMENT *

R. Colebunders[1,2], S. Dohmen[2], A. Van de Velde[2], J. Pelgrom[1], P. Hermans[3]

* The editorial Board of the Acta Clinica Belgica wants to stress that letters to the Editor always express the personal opinion of the author(s)

Since the introduction of highly active antiretroviral treatment (HAART) the incidence of opportunistic infections in persons with HIV infection has remarkable decreased [1]. HAART also reduced the incidence of Kaposi's sarcoma and primary central nervous system lymphoma but the incidence of systemic non-Hodgkin's lymphoma remained relatively stable [2].

In the following case report we describe a patient who developed a Burkitt's lymphoma shortly after starting HAART because of an acute HIV infection.

CASE REPORT

A 27-year-old homosexual man developed a flu-like syndrome caused by an acute HIV infection. His CD4+ lymphocyte count was 410 x 10^9/l and his viral load 87236 copies/ml plasma. HAART (indinavir 800 mg tid, zidovudine 250 mg bid and lamivudine 150 mg bid) was started. Because of intolerance, indinavir was stopped after 10 months. Zidovudine and lamivudine were continued. One year after diagnosis he presented with an enlarged cervical lymph node. He was complaining of fatigue, night sweats and he had lost 2 kilograms of body weight. His CD4+ lymphocyte count was 609 x 10^9/l and his viral load 1645 copies/ml plasma. Biopsy of the cervical lymph node showed a high grade malignant B-cell non-Hodgkin's lymphoma, type Burkitt's lymphoma. Further investigations revealed a stage IB disease. Treatment with 6 cycli of cyclophosphamide (750 mg/m+), doxorubicin (50 mg/m+), vincristine (1.4 mg/m+) and prednisone (40 mg/m+) (CHOP) was started. Zidovudine and lamivudine were continued. The cervical adenopathy rapidly disappeared. A complete remission was obtained. During CHOP treatment there were no major complications, the patient only developed anaemia for which blood transfusions were given. Local radiotherapy completed the treatment.

Four years after diagnosis the patient is still free of any symptoms without evidence of recurrent non-Hodgkin's lymphoma. He is treated with indinavir 800 mg bid, ritonavir 100 mg bid, didanosine 400 mg qid and stavudine 40 mg bid. His CD4+ lymphocyte count is 604/mm+ and his viral load is undetectable (below 50 copies/ml plasma).

DISCUSSION

HIV-related non-Hodgkin's lymphoma, particularly primary central nervous system lymphoma, occur in persons with severe immune deficiency [3]. Burkitt's lymphoma is an exception because this type of lymphoma can be observed in earlier stages of HIV infection [3]. In our patient the lymphoma was diagnosed shortly after he became infected with HIV, during HAART, when his CD4+ lymphocyte count was normal and in the presence of a very low HIV viral load. One may wonder whether the HAART may have favoured the development of the lymphoma. Certain antiretrovirals such as zidovudine are

[1] Instituut voor Tropische Geneeskunde, Nationalestraat 155, B - 2000 Antwerpen, België
[2] Universitair Ziekenhuis van Antwerpen, Wilrijkstraat 10, B - 2650 Edegem, België
[3] Hôpital Universitaire St.-Pierre, rue Haute 322, B - 1000 Bruxelles, Belgique

Address for correspondence :
Prof. dr. R. Colebunders
Instituut voor Tropische Geneeskunde
Nationalestraat 155
B – 2000 Antwerpen
België
Tel. + 32 3 247 64 26
Fax + 32 3 247 64 32
E-mail : bcoleb@itg.be

potentially mutagenic [4]. However, so far it has not been proven that antiretrovirals may cause lymphoma [4].

HAART has considerably improved the survival time of patients presenting with opportunistic infections, but not of patients with primary brain lymphoma or Burkitt's lymphoma [5]. The excellent treatment response of our patient can probably be explained by the fact that his immune system was not damaged by HIV.

This case report illustrates that, even during early HIV infection with a high CD4+ lymphocyte count and despite HAART, one should always consider the diagnosis of a non-Hodgkin's lymphoma in a patient with an unexplained enlarged lymph node.

REFERENCES

1. Patella FJ, Delaney KM, Moorman AC, et al. : Declining morbidity and mortality among patients with advanced human immunodeficiency virus infection. *N Engl J Med* 1998; 338 : 853-60.
2. Jacobson LP, Yamashita TE, Detels R, et al. : Impact of potent antiretroviral therapy on the incidence of Kaposi's Sarcoma and non-Hodgkin's lymphoma among HIV-1-infected individuals. *J Acquir Immune Defic Syndr* 1999; 21 : S34-S41.
3. Goedert JJ, Coté TR, Virgo P, et al. : Spectrum of AIDS-associated malignant disorders. *The Lancet 1998*; 351 : 1833-9.
4. Levine AM, Bernstein L, Sullivan-Halley J, et al. : Role of zidovudine antiretroviral therapy in the pathogenesis of AIDS-related lymphoma. *Blood* 1995; 86 : 4612-6.
5. Conti S, Masocco M, Pezzotti P, et al. : Differential Impact of Combined Antiretroviral Therapy on the Survival of Italian Patients With Specific AIDS-Defining Illnesses. *J Acquir Immune Defic Syndr* 2000; 25 : 451-8.