Self-assessment corner

Dysphagia in an HIV-positive man

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A 36-year-old man was found to be positive for antibodies to HIV I in 1988 at an insurance medical. He was subsequently commenced on primary *Pneumocystis carinii* pneumonia prophylaxis when his CD4 count fell to below 200/mm³, in accordance with current practice in the USA and UK.¹ He had also been treated with zidovudine but this had been discontinued because of a rash. He had declined alternative anti-retroviral drugs.

He remained symptom free until May 1994 when he developed oral candidiasis and dysphagia. His blood CD4 count was 28/mm³. He underwent oesophago-gastro-duodenoscopy (OGD) which confirmed the clinical diagnosis of oesophageal candidiasis. Treatment with oral fluconazole was therefore started and his symptoms resolved rapidly. He was not given maintenance anti-fungal treatment.

In June 1994 he developed right upper quadrant pain. A repeat OGD was performed. This revealed mild plaques of *Candida* adherent to the oesophagus and no ulceration. However the gastric mucosa was obviously abnormal with large rugal folds suggestive of infiltration. Many of these folds were ulcerated. There was no obstruction of gastric outflow and the oesophago-gastric junction was not compressed. Several biopsies of the gastric mucosa were taken for histological examination. Subsequently, contrast enhanced abdominal computed tomography (CT) was performed.

Figure Enhanced CT scans of abdomen

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Question

What is the most likely diagnosis?

Answer

HIV-associated lymphoma.

The abdominal CT scans show considerable thickening of the stomach wall, with virtually complete obliteration of the gastric cavity. Biopsies taken at OGD had revealed diffuse infiltration by large transformed cells of lymphoid morphology. Neither a T-cell or B-cell origin could be determined by immunohistochemical studies.

Lymphoma in patients with HIV infection

Non-Hodgkin's lymphoma is now firmly established as an HIV-associated malignancy, and is also diagnostic of AIDS in an HIV-positive individual (box 1). The condition is about 60 times more common in AIDS patients than in the general population.^{2,3}

With the increasing survival of AIDS patients as a consequence of better prevention and treatment of infectious complications, the incidence of HIV-related lymphomas may increase from its present level of approximately 3%.

Clinical features

Most HIV-associated systemic non-Hodgkin's lymphoma have a 'blastic' cell morphology, with a high growth rate and extranodal involvement. The brain, gastrointestinal tract, lung, skin and bone marrow are the commonest sites of involvement (box 2). Patients usually present with both non-specific symptoms (eg, fever, loss of weight, night sweats,) and specific features. The latter reflect the organ or system involved (eg, focal central nervous system (CNS) signs, dysphagia, skin nodules, chest X-ray abnormalities, pancytopenia). The diagnosis is made by biopsy of the involved system.

HIV-associated malignancies

Definite:
non-Hodgkin's lymphoma (systemic*, primary cerebral lymphoma*, Burkitt's lymphoma)
Kaposi's sarcoma*
invasive carcinoma of the cervix*

Possible:
rectal and anal cancer
testicular seminoma and teratoma
bronchogenic carcinoma
hepatocellular carcinoma

*denotes AIDS defining malignancy in the UK

Box 1

AIDS-associated non-Hodgkin's lymphoma

- 3% of AIDS cases
- high-grade, extranodal disease: CNS, gastrointestinal tract, bone marrow, lung, skin, liver
- median survival 4 months

Box 2

HIV-associated dysphagia

Candida
cytomegalovirus
Kaposi's sarcoma
Herpes simplex virus
Mycobacterium avium complex
non-specific ulceration
lymphoma

Box 3

Prognosis

The overall prognosis of these malignancies is poor, due to the combination of a high-grade lymphoma and the underlying severe HIV-associated immunosuppression. A median survival of four months is reported in patients whose CD4 count is below 100 cells/mm³.⁴ Even shorter survival times are reported in those with primary CNS non-Hodgkin's lymphoma.⁵

Treatment

In HIV-positive patients in a low risk category (ie, without opportunistic infections, with a good performance status and a CD4 count > 100 cells/mm³), similar response rates may be obtained with intensive chemotherapy, as occur in patients who are not HIV-positive. In contrast, high risk patients (such as the one described here), respond poorly to chemotherapy.⁶

Summary

An HIV-positive man whose dysphagia was due to non-Hodgkin's lymphoma. The differential diagnosis of this symptom in the context of HIV infection is summarised in box 3.

Final diagnosis

AIDS-associated non-Hodgkin's lymphoma.

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- 3 Tirelli U, Franceschi A, Carbone A. Malignant tumours in patients with HIV infection. *BMJ* 1994; 308: 1148-52.
- 4 Kaplan LD, Abrahms DI, Feigal E, et al. AIDS associated non-Hodgkin's lymphoma in San Francisco. *JAMA* 1989; 261: 719-24.

- 5 Levine AM, Sullivan-Halley J, Pike MC, et al. HIV-related lymphoma: prognostic factors predictive of survival. *Cancer* 1991; 68: 2466.

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