Case Report

NK/T-Cell Lymphoma in AIDS


Abstract

A 42-year-old man diagnosed to be HIV positive and on highly active antiretroviral treatment (HAART), presented with double vision and gradual drooping of the left eyelid. He had left 3rd cranial nerve palsy and partial right lower-motor-neuron facial palsy. CT of the PNS revealed soft tissue filling the right maxillary sinus antrum. Further workup showed the mass to be an NK/T cell lymphoma.

INTRODUCTION

India has over 5 million people living with HIV/AIDS (PLHA). With the government of India launching the highly active antiretroviral treatment (HAART) program in 2004, it is expected that the occurrence of opportunistic infections (OI) will decrease. However as seen in resource rich settings, in the era of HAART, physicians are likely to start encountering more PLHA with malignancy. We herewith report a case of NK/T-cell lymphoma in AIDS.

CASE REPORT

A 42-year-old man, employed in a private firm, recently diagnosed to be HIV positive and on HAART, presented with double vision and gradual drooping of the left eyelid over 2 weeks. He had also noticed mild deviation of the angle of his mouth to the left side over the same period. He had pain in the left eye and forehead.

He had had a history of pulmonary TB 2 years back and herpes zoster infection 6 months back. Pre-HAART work up inclusive of ophthalmic examination had been unremarkable. CD-4 count at the time had been 40 cells/mm³.

Examination revealed an afebrile patient with normal vitals. Multiple small firm cervical lymph nodes were palpable. Respiratory, otorhinolaryngological, cardiac and abdominal examination were normal. Nervous system examination revealed complete left 3rd cranial nerve palsy (Fig. 1) and partial right lower-motor-neuron facial palsy. Ophthalmic examination revealed left ptosis with limitation of elevation, adduction and depression. Best-corrected visual acuity was 6/6 in both eyes. Fundus examination was normal.

Initial investigations revealed mild anemia with an Hb of 9.9 g/dl; other indices were normal. Biochemical parameters were normal. Chest roentgenogram revealed right-sided pleural effusion. The CD4 count had increased to 178 cells/mm³.

CT of the PNS revealed soft tissue filling the right maxillary sinus antrum with extension into the orbital apex and infratemporal fossa (Fig. 2). A defect in the right cribriform plate was also noted. Further, MRI Brain was done which revealed a mass lesion in right maxillary sinus extending into other sinuses, bilateral para sellar regions and left orbital apex. The lesion was minimally enhancing on contrast.

CSF analysis by lumbar puncture did not reveal any abnormality.

Nasoendoscopic biopsy of the mass lesion from the right maxillary and ethmoidal sinuses was performed after right uncinectomy.

Histopathology revealed features suggestive of poorly differentiated malignant neoplasm (Fig. 3). Immunohistochemistry studies revealed Leucocyte-Common-Antigen (LCA) positivity for 50% (Fig. 4), and CD3 positivity for 30% of the malignant cells (Fig. 5). Cytokeratin was negative. CD20 was negative. EBV was strongly positive (Fig. 6). These findings were indicative of an NK/T cell lymphoma.

Pleural fluid was exudative but did not reveal evidence of malignancy or TB.

Bone marrow aspiration done from the iliac crest revealed a few atypical lymphoid cells infiltrating the marrow. The patient was therefore assigned stage IV Non-Hodgkin’s Lymphoma.
He was started on mBACOD low dose chemotherapy regimen, comprising Methotrexate, Bleomycin, Doxorubicin, Cyclophosphamide, Vincristine and Dexamethasone.

Before the second cycle of chemotherapy, the patient developed complete blindness in both eyes. He was discharged from hospital on request and as per his family’s report he expired within a week from discharge.

**DISCUSSION**

Kaposi sarcoma and Non-Hodgkin Lymphoma have been widely reported AIDS-defining cancers. Even with
HAART, survival rate in lymphomas is dismal.³

Lymphomas occurring in HIV-infected persons are almost exclusively of the B-cell type.⁴⁵ Reports rarely describe NK/T-cell lymphomas.⁷⁸

Our patient had an NK/T-cell lymphoma (nasal type). It was not a plain T-cell lymphoma because it showed strong EBV positivity which is a feature of NK/T-cell lymphoma. CD56 marker study, which used to be done previously for diagnosing NK-T cell lymphoma, was not done in our patient, as according to the recent WHO fascicle on lymphomas just EBV positivity is sufficient to tilt the diagnosis in favour of NK/T-cell lymphoma. EBV testing was done immunohistochemically for the LMP 1 antigen and it showed a diffuse and strong nuclear positivity in the tumour cells. To our knowledge, our patient is a very rare case in literature.

REFERENCES
1. Nutankalva L. Gender Differences in Cancers in HIV-Infected Patients. Presented at 44th ICAACA meeting of the American Society for Microbiolog.

Announcement

API Chennai City Chapter will be conducting Annual 16th All India Postgraduate Teaching Programme at O.P Auditorium, Southern Railways Headquarters, Perambur, Chennai on 15 to 17 December, 2006.

The programme includes lectures, clinical demonstration, panel discussion, spotters and case presentation. Senior professors and postgraduates examiners are faculty members. The registration fees is Rs. 500/- five hundred only. Add Rs. 50/- for outstation cheques. Registration includes lunch and coffee on all 3 days. Cheques should be drawn in favour of API Chennai City chapter.

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Announcement

IX National Conference of Hospital Infection Society of India (IX HISICON-2007) 16th-18th February 2007, Organized by Department of Microbiology, Government Medical College Hospital, Sector 32, Chandigarh

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