Reviewer's report

Title: Spectrum of clinical disease in a cohort of 135 hospitalised HIV-infected patients from north India

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Reviewer: kenrad nelson

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General

The authors report the clinical features outcome, and some epidemiological characteristics of 135 consecutive patients from north India who were admitted to the HIV/AIDS ward of the All India Institute of Medical Sciences Hospital in New Delhi, India between January, 2000 and July, 2003. This is a tertiary referral hospital for northern India. The authors found that most patients had clinical AIDS or CD4 counts below 200 cells/μl on admission. Notably 71% of patients had pulmonary or disseminated tuberculosis and only 7.4% had PCP; 82% of patients had CD4+ counts <200 cells/μl and 46% had CD4+ cells counts <50 cells/μl. Only 37% of patients received antiretroviral therapy and 16% died during their hospital stay – most frequently from tuberculosis. There were no cases of Kaposi’s sarcoma and none had Penicillium marneffei infection. Most had heterosexual behavior as a risk factor for HIV infection; however 40% of patients who were HIV positive denied any risk factors for HIV acquisition. The authors believe these persons mostly acquired their HIV by heterosexual contact.

My comments are as follows:

1. The strength of this paper is that it reports a consecutive sample of HIV-positive patients. The weakness is that it suffers from “referral bias”. It is incorrect to call this sample a “cohort” – since this term refers to a population identified prior to an outcome. However, all of these patients already had HIV/AIDS on admission to the hospital from an unknown but large population base. They are a highly selected sample.

2. Nevertheless, the description of their clinical illnesses and outcome is of interest because of the sparsity of such data from North India. (The rates of HIV infection are highest in S. India).

3. The authors do not contrast their findings with other clinical reports from elsewhere in India. Such comparisons could be useful.

4. The frequency of TB and rarity of PCP and absence of KS are of interest:
   a. What is the policy of INH prophylaxis of HIV positive patients in India or at All India Institute of medical Sciences?
   b. What is the policy of HIV screening of patients with TB in India or at All India Institute of Medical Sciences?
   c. What is the policy of screening of hospital admissions at All India Institute for HIV? How many hospitalized patients who were HIV positive could have been missed in this study?

5. What is the policy of HIV screening of adults admitted to All India Institute of Medical Sciences?

6. What is the referral policy to send HIV/AIDS patients to New Delhi and All India Institute of Medica Sciences for treatment? Could it be that TB patients who are HIV positive with low CD4+ counts are more likely to be referred and admitted to hospital, whereas PCP patients are treated in the local community with Bactrim?

7. How many patients with cough or pulmonary disease who were negative for TB were screened for PCP with Bronchoscope or Induced Sputum.

8. I disagree that the study of Ablashi et al (ref #28) has clearly shown that the reason for the rarity of KS in Asia is due to uncommon infections with HHV-8. This survey has not included a sufficient number or spectrum of patients from Asia to draw definite conclusions. Others have found a high
seroprevalence of HHV-8 in Thailand, for example.

9. Overall, this paper is useful in that it includes a sizable number of HIV/AIDS patients from India, an area where good clinical studies have been uncommon. However, referral and diagnostic biases have some influence on the reported findings.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Describe more completely the possible effect of referral bias and catchment area of the hospital.
2. Describe policy and frequency of HIV testing of patients at the hospital.
3. Drop the word “cohort” to describe the population.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No