Reviewer’s report

Title: Mycobacterial and Nonbacterial Pulmonary Complications in Hospitalized Patients With Human Immunodeficiency Virus Infection The PIP (Pulmonary Complications, Intensive Care Unit Support, and Prognostic Factors of Hospitalized Patients With HIV) Study

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Reviewer: Dr Raymond Smego

Level of interest: A paper of limited interest

Advice on publication: Unable to decide on acceptance or rejection until I see revised version

This descriptive study by Dr. Afessa of the spectrum of non-bacterial pulmonary complications of HIV-infected patients is extensive, involving almost 600 patients. It is well-written and readable. Unfortunately, the results of this investigation and the conclusions made are essentially very 'old news'; most of the major results have been known for 10-15 years. Such results include:

1) the microbiologic (non-bacterial) spectrum and relative incidences of causes of pulmonary infiltrates in this patient population;
2) the occurrence of tuberculosis at higher mean CD4+ cell counts than for other pulmonary opportunistic infections such as PCP or MAC;
3) the radiographic presentation of PCP, and to a lesser extent tuberculosis;
4) the occurrence of non-infectious pulmonary complications;
5) the frequent disseminated nature of M. tuberculosis and MAC that involves the lungs;
6) the diagnostic utility of serum LDH for PCP;
7) the relatively frequent occurrence of pulmonary co-infections with CMV and M. tuberculosis in HIV-infected patients with PCP.

As the author correctly states, information on the frequency and types of antiretroviral therapy would allow a more discerning analysis of any trends in the microbiologic spectrum of pulmonary disease in these patients, and the lack of such data is a notable limitation of the study.

More minor points of the paper: 1) in the Abstract (Results) the phrase "...complications during hospitalizations were ....." is inaccurate as these were complications that were generally the cause of admission in these patients and were not nosocomial in nature; 2) why does the Materials and Methods section appear after the Discussion? In addition, given the single author, single institution nature of the study the detailed 'name' - the PIP (Pulmonary Complications, Intensive Care Unit Care Unit Support, and Prognostic Factors of Hospitalized Patients with HIV) Study is unnecessary and inappropriate.

In summary, this is an accurate confirmation or review of existing knowledge concerning pulmonary disease complications in HIV-infected populations, but the paper does not contribute anything new to the literature pertaining to the diagnosis or therapeutic management of these patients.
I suggest a Review Article format.

**Competing interests:**

None declared.