Reviewer’s report

Title: High Prevalence of Bronchiectasis is linked to HTLV-1-associated inflammatory disease

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Reviewer: Edgar M. Carvalho

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There are evidences that over 50% of HTLV-1 infected individuals have clinical and neurologic manifestations including sicca syndrome, chronic periodontal disease, urinary manifestations mainly related to overactive bladder, HTLV-1 associated arthropathy and erectile dysfunction among others. Bronchiectasis has been identified in HTLV-1 but there is no clear evidence how HTLV-1 can cause bronchiectasis. In this study the pro-viral load was evaluated in 14 HTLV-1 patients diagnosed with bronchiectasis and epidemiologic aspects related to these individuals were compared with the observed in a cohort of 413 HTLV-1 infected subjects.

1) The limitations of this study include the small number of patients with bronchiectasis (N=14) lack of clinical data and evidences of a relationship of between HTLV-1 and bronchiectasis.

2) HTLV-1 infection increases 2-4 fold the occurrence of tuberculosis and tuberculosis is an important causes of bronchiectasis. In the results section it is informed that none of the patients had tuberculosis. However due to the association of tuberculosis with HTLV-1 infection and with bronchiectasis more information about how tuberculosis was ruled out should be given. Were acid fast bacilli searched in the sputum? In any of these patients culture for M. tuberculosis was performed?

3) The retrospective analysis and the small number of patients studied is an important limitation of this study. This may prevent to determine the real prevalence of bronchiectasis in HTLV-1 infection and also to explain why bronchiectasis occurs in HTLV-1 infection. For instance compared to the study of Okada et al who found bronchiectasis in 30% of HTLV-1 infected subjects bronchiectasis was only found in 3,4% of the patients in the present study.

4) One of the characteristics of the diseases associated with HTLV-1 is the high pro-viral load. However the pro-viral load in HTLV-1 infection is quite variable. Therefore it is possible that due to the small number of patients studied the pro-viral load was not higher in patients with bronchiectasis than in those without bronchiectasis.

5) The comments about the role of immunosuppression and pulmonary infection as causes of bronchiectasis in HTLV-1 infection have no support. First because there was no data in this cohort about the prevalence of respiratory tract infection, and second because data about respiratory infection in the patients...
who had bronchiectasis was limited to the information that this was the reason to request chest computer tomography.
6) The role of the exaggerated inflammatory response observed in HTLV-1 infection in the development of bronchiectasis is possible but to better define it studies should be performed in the bronchoalveolar lavage fluid of patients with and without bronchiectasis.

**Level of interest:** An article of insufficient interest to warrant publication in a scientific/medical journal

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
I have no competing interests regarding this subject.