



MEETING ABSTRACT

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Infection with Human T Lymphotropic Virus 1 is associated with bronchiectasis among Indigenous Australians

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From 15th International Conference on Human Retroviruses: HTLV and Related Viruses Leuven and Gembloux, Belgium. 5-8 June 2011

Background

Infection with the Human T-Lymphotropic Virus 1 (HTLV-1) is associated with bronchiectasis in Indigenous Australians [1]. The present study defines the clinical presentation and outcomes of bronchiectasis according to HTLV-1 serostatus in this population.

Materials and methods

Retrospective cohort study at Alice Springs Hospital, central Australia. Medical records were reviewed for all Indigenous adults admitted between 2000-2006 with radiologically confirmed bronchiectasis and known HTLV-1 serostatus.

Results

One-hundred and twenty patients were admitted during the study period, HTLV-1 serology was performed for 92 (75.8%) patients. Western blots confirmed HTLV-1 infection in 52 (58.4%) cases and were indeterminate for 3 patients. HTLV-1 seropositive patients more often had bilateral bronchiectasis (HTLV-1+, 37/51; HTLV-1-, 18/36; $p=0.032$) and ground glass opacities (HTLV-1+, 10/51; HTLV-1-, 1/36; $p=0.028$) on HRCT chest, but were less likely to have a pathogen isolated during an infective exacerbation (HTLV-1+, 16%; HTLV-1-, 20%; $p=0.042$). HTLV-1 seropositive patients were more likely to have cor pulmonale (HTLV-1+, 10/52; HTLV-1-, 1/37; $p=0.023$) and to suffer bronchiectasis-related deaths (OR 5.78; 95% CI,

1.17, 26.75; $p=0.028$). The mortality rate for the entire cohort during the 7 year period was 34.2%. Median age of death for both groups combined was 42.5 years. Only HTLV-1 seropositive patients were admitted for treatment of infected skin lesions and this was the major predictor of subsequent death from any cause on multivariable analysis (OR, 6.77, 95% CI, 1.46, 31.34; $p=0.014$).

Conclusion

In an Indigenous Australian cohort HTLV-1 infection is associated with bronchiectasis and an increased risk of pulmonary hypertension and death.

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Published: 6 June 2011

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doi:10.1186/1742-4690-8-S1-A38

Cite this article as: Einsiedel *et al.*: Infection with Human T Lymphotropic Virus 1 is associated with bronchiectasis among Indigenous Australians. *Retrovirology* 2011 **8**(Suppl 1):A38.

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