Letter to the Editor

Dear Editor

Pulmonary fibrosis in association with human T cell lymphotropic virus type 1 (HTLV-1) infection

Most patients suffering from HTLV-1 Associated Myelopathy (HAM) have a subclinical alveolar T lymphocytosis (1). We report the first case, to our knowledge, of pulmonary fibrosis in a patient with HAM.

A 35-year-old Mauritanian patient presented with a 6-months history of progressive dyspnoea. Chest radiography and thoracic CT scan showed an interstitial pneumonia without evidence of adenopathy or pleural effusion. Pulmonary function tests disclosed a restrictive pattern (total lung capacity, 60% of the predicted value). Bronchoalveolar lavage cells count was normal. Open lung biopsy analysis showed non-specific, interstitial fibrosis. Specific stains and cultures for pathogens were negative. The patient was treated with prednisone (30 mg day^{-1}).

The search for possible HTLV-1 infection was prompted by a pyramidal syndrome with weakness of both legs associated with urinary disturbances and bilateral Babinski sign. Magnetic resonance imaging of the spinal cord was normal. The patient was seropositive for HTLV-1 by an enzyme-linked-immunosorbent assay and by Western blot analysis. No leukaemia-like cells were identified in peripheral blood. Three months later, the patient developed cervical tuberculous lymphadenopathy. He was then lost to follow-up because he returned to his native country.

HTLV-1 may be implicated as an indirect cause of pulmonary fibrosis. The viral transactivator protein Tax of HTLV-1 activates many cellular genes such as transforming growth factor-β, which has been implicated as an important mediator of pulmonary fibrosis (2). Moreover, HTLV-1 seropositive patients with Adult T-cell Leukaemia have frequent leukaemic cell infiltration of the lungs accompanied by pulmonary fibrosis (3). We suggest performing analysis for a possible HTLV-1 infection in patients who have pulmonary fibrosis associated with pyramidal signs either they are not originating from known endemic areas for HTLV-1 infection. Therefore, HTLV-1 may be one of the different viruses that promote an inflammatory response contributing to pulmonary fibrosis.

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References