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Strongiloides stercolaris in bronchioloalveolar lavage

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Keywords: Bronchoalveolar lavage (BAL); Conventional cytology; Immunosuppression; Strongiloidesstercolaris.

Clinical image description

A 57-year-old male patient, former smoker, native of Misiones (Argentina), was presented to the Emergency Department of the Clinical Hospital of Buenos Aires, Argentina, with a worsening oxygen requirement, chronic cough, shortness of breath and vomiting of 1 week of evolution. He suffered from stage 3-4 squamous cell carcinoma of the tonsil since 2 years, treated with chemotherapy with paclitaxel, 5FU, cisplatin).

Chestradiography was performed, which showed diffuse bilateral lung consolidation. Bronchioalveolar lavage (BAL) was performed to evaluate diffuse infiltrates in alveoli and lung interstices. The cytological examination of the material obtainedshowed Strongiloides stercolaris filariform larvae in fresh and in stained samples with the Giemsa and Papanicolaou methods. Giemsa'smethod, simple and fast, was to be very useful for the cytodiagnosis of this parasitosis. So far as we know, this is the first report of this method for the observation of Strongiloides stercolaris larvae in BAL [1] (Figures 1-3).

Strongyloidosis is an endemic helminthiasis of Southwest Asia, Africa, and South America [2]. Severely immunosuppressed patients, with hyperinfection, usually present the parasite in the lungs, since the larvae can evolve into filariform forms before being excreted in the faeces, with the ability to spread to other sites. Our patient presented not only the larvae in the BAL, but also the parasite's eggs, which is an exceptional fact [3].



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The cytological and histological examination of the affected tissues is the method of choice due to its great sensitivity and specificity, for cases of Strongyloides stercolaris hyperinfection. Pulmonary strongyloidiasis should be considered as a possible differential diagnosis if alveolar and interstitial shadow patterns are observed on chest radiographs of patients with immunodeficiencies [4].



Figure 1: Filariform larva of Strongyloides stercoralis in BAL (Giemsa stain-800x)

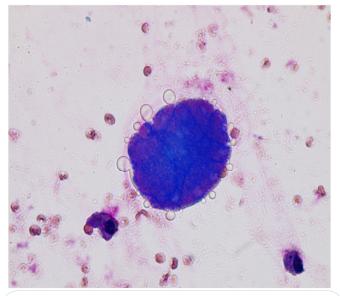


Figure 2: Strongyloides stercoralis egg in BAL (Giemsa stain-800x)



Figure 3: Filariform larva of Strongyloides stercoralis in BAL (Pap stain-800x)

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