LETTER TO THE EDITOR

## Pulmonary Adenocarcinoma Presenting as Diffuse Interstitial Lung Disease

**To the editor**:

Adenocarcinoma of the lung is a well defined disease for which the World Health Organization (WHO) describes 4 types: acinar, solid, papillary, and bronchioalveolar.[1] Lung adenocarcinoma sometimes presents with a predominantly inflammatory and fibrotic histological structure. When that happens, it is difficult to distinguish adenocarcinoma from diffuse interstitial lung disease (DILD).[2]

We describe the case of a man with lung adenocarcinoma whose initial diagnosis was DILD based on clinical and radiological findings. Histology showed a predominantly fibrotic and inflammatory response.

A 51-year-old man with a history of hypertension and atopic dermatitis, an ex-smoker (20 pack-years) complained of breathlessness that had started a month earlier. Physical examination revealed faint bilateral basilar crackles. A chest x-ray showed a bilateral interstitial pattern that covered the lower two thirds of each lung and that had not been evident in a 2-year-old radiograph the patient provided. The tentative diagnosis was DILD and a high resolution computed tomography scan of the thorax revealed slightly diseased paratracheal lymph nodes and central interstitial lesions, mainly peribronchovascular, with peripheral thickening of interlobar septa, irregular thickening of fissures and fibrotic zones at both bases. The hemogram, basic blood chemistry, and arterial blood gas analysis were all normal. Tests for antinuclear antibodies and antineutrophil cytoplasmic antibodies, a viral serology, and a sputum smear were all negative. Given the patient's severe dyspnea, treatment with oral corticosteroids was started. Fiberoptic bronchoscopy was scheduled with the aim of clarifying the nature of the radiologic images. No visible lesions were found, although the histopathologic study of the transbronchial biopsy demonstrated moderately differentiated adenocarcinoma with extensive lymphatic infiltration and broad fibrotic areas. A surgical lung biopsy confirmed the histologic diagnosis.

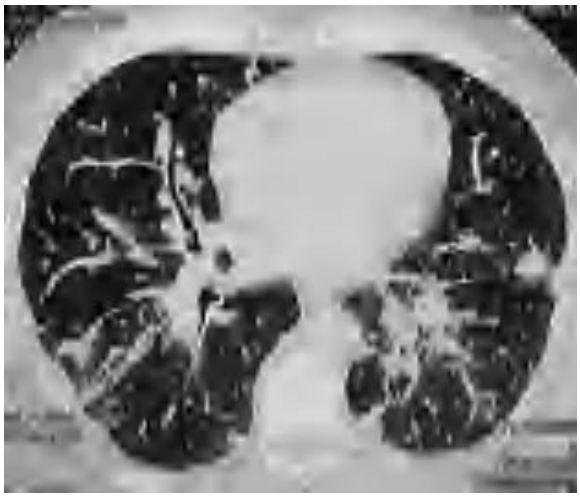

**Figure. Interstitial involvement that is mainly bronchovascular and peripheral; fibrotic foci are present.**

The association of moderately differentiated lung adenocarcinoma with bilateral lymphatic dissemination and an intense interstitial fibrotic reaction is a histological presentation that is not described in the WHO classification system, although cases with this pattern have been reported.[2] The presentation of pulmonary adenocarcinoma raises the question of whether the tumor grows upon existing interstitial disease,[3,4] which did not seem to be the case for our patient, or scarring is an abnormal reaction of the lung in the presence of neoplastic dissemination. We believe that cases like this one give reason to insist on the need for a histologic diagnosis for DILD, either by way of transbronchial biopsy or, if necessary, open lung biopsy.

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