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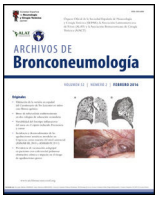

Scientific Letter

Alveolar Hemorrhage as a Complication of Idiopathic Pulmonary Fibrosis☆

Hemorragia alveolar como complicación de la fibrosis pulmonar idiopática

Dear Editor,

Idiopathic pulmonary fibrosis (IPF) exacerbations occur at an incidence of 5%–10% per year and are defined as an acute, clinically significant respiratory worsening characterized by the new appearance of extensive alveolar involvement.[1] Although mortality is high, few studies have identified the causes of death.

We report the case of a 64-year-old woman with rapidly progressing IPF and severe exacerbation. The patient was referred to our clinic for the study of a history of dyspnea of several months' duration. Significant history included ferropenic anemia and a stress fracture in the left femur treated with a prophylactic pin that had to be replaced 8 months before she was referred to our clinic; the patient was not receiving any treatment at that time. After this surgery, she developed progressive worsening of her dyspnea, chest pain, and chronic cough that abated with inhaled corticosteroids. Further examinations showed a bilateral interstitial pattern on chest X-ray confirmed on chest computed tomography (CT) that also revealed mild diffuse esophageal dilation and an interstitial pattern with irregular thickening of the interlobular interstitium, predominantly in both subpleural regions with apico-caudal gradient, and areas of honeycombing and traction bronchiectasis, all consistent with a standard interstitial pneumonia pattern. Pulmonary function tests showed a restrictive pattern with marked decrease in CO diffusion (FVC 1410 ml [56%], FEV_1 1240 ml [68%], FEV_1/FVC 88, DLCO 30%, TLC 2500 ml [63%]), and in a walk test she covered a distance of 240 m with a final oxygen saturation of 79% and mild hypoxemia in arterial blood gas. A transthoracic echocardiogram was performed, showing normal LVEF, with no valvular disease and no indirect data to suggest pulmonary hypertension. The immunity study showed an elevated antinuclear antibody titer (1/160, with no specific nuclear pattern). Remaining antibodies (AMB, ANCA, Ro, La, Sm, FR, U1RNP, ADNbc, Ribosom1P, SSA, SSB, Scl70, Jo1) and clinical laboratory tests, including coagulation parameters, were completely normal. The patient was assessed by the rheumatology and internal medicine departments, ruling out connective tissue disease,[2] and other diffuse lung diseases of known cause were ruled out by our department. A diagnosis of IPF was given. One month after the first visit, the patient presented both clinical and functional deterioration (FVC 49% and DLCO 25%), along with partial respiratory failure (PaO_2 53 mmHg), so she was referred to the transplant unit. Two weeks after diagnosis, while awaiting treatment with pirfenidone,[3] she was hospitalized for a clinical picture of fever, increased dyspnea, and radiological progression of bilateral infiltrates and respiratory failure, requiring ICU admission and orotracheal intubation. Bronchoscopy was performed: bronchoalveolar lavage was consistent with alveolar hemorrhage, while cultures of the collected samples were sterile. Progress was poor, with progressive worsening despite ventilatory support and treatment with high-dose corticoids and broad-spectrum antibiotic therapy, and the patient died some days later. Autopsy was requested, which determined that the underlying cause of death was extensive intraalveolar hemorrhage, with both lungs showing extensive areas of predominantly subpleural fibrosis and honeycombing images, confirming the histological pattern of usual interstitial pneumonia.

The etiology of IPF exacerbations is unknown, although different causal agents have been proposed, such as viral infections, gastroesophageal reflux, and some medications.[4] They are more frequent in patients with lower FVC and DLCO, and in individuals with pulmonary hypertension, in whom mortality is also higher. The causes of death in the course of an IPF exacerbation have not been widely studied, and most of the available data come from small case series. Oda et al.[5] published the results of a study that included 52 autopsies of patients who died from an IPF exacerbation. The authors found diffuse alveolar damage in 78.8% of patients, pulmonary hemorrhage in 28.8%, pulmonary thromboembolism in 17.3%, and lung cancer in 11.5%. Diffuse alveolar damage was absent in 20% of patients with alveolar hemorrhage, and this finding was not related to oral anticoagulant intake. Alveolar hemorrhage is a complication rarely diagnosed in the course of IPF given the difficulty in making a clinical diagnosis premortem without bronchoalveolar lavage, a procedure that in itself can trigger an exacerbation,[6] and it has also been described as a cause of exacerbation in patients treated with pirifenidone and nintedanib.[7,8] There is no established treatment for IPF exacerbation. The lack of randomized clinical trials means that the recommendations of clinical practice guidelines lack concision.[9] The SEPAR guidelines propose the use of methylprednisolone in bolus injections for 3 days with a subsequent tapering of the prednisone regimen, combined or not combined immunosuppressants.[10]

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Clinical trials and new studies are clearly needed to determine the causes of both exacerbation and death in these patients and the most appropriate treatment.

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EBUS-TBNA Diagnosis of a Granulomatous Reaction to Surgicel® in mediastinal adenopathy☆

Diagnóstico mediante EBUS-TBNA de reacción granulomatosa secundaria a Surgicel® en adenopatía mediastínica

To the Editor,

We report 2 similar cases of diagnosis by pathology study of a granulomatous reaction caused by hemostatic material (oxidized cellulose, Surgicel®) that occurred in 2019 at the Hospital Universitario Virgen de las Nieves in Granada.

The first was a 61-year-old patient with no significant medical history, diagnosed with a solitary pulmonary nodule measuring 15 mm×20 mm in the right inferior lobe. Right lower lobectomy was performed by video-assisted thoracoscopy (VATS) with a histological diagnosis of adenocarcinoma of pulmonary origin. Follow-up computed tomography (CT) showed right lower paratracheal nodes (station 4R) measuring 19 mm×16 mm, enlarged compared to previous imaging studies, so linear endobronchial ultrasound transbronchial needle aspiration (EBUS-TBNA) was performed. The pathology study of the node revealed multiple inclusions of birefringent material under polarized light, suggestive

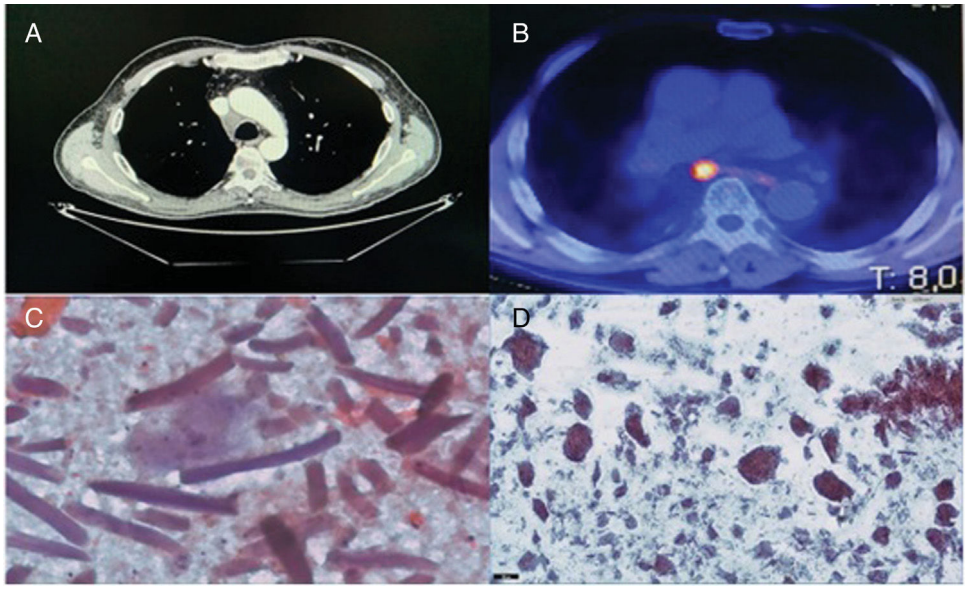

Fig. 1. (A) Chest CT scan showing enlarged nodal station 4R. (B) PET/CT with increased metabolism in subcarinal adenopathy. (C) Giant cells with birefringent material (400×) from the first case. (D) Birefringent amorphous material under polarized light from the second case.

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