Eosinophilic Pleural Effusion as a Manifestation of Idiopathic Hypereosinophilic Syndrome

Derrame pleural eosinofílico secundario a síndrome hipereosinofílico idiopático

To the Editor,

Eosinophilic pleural effusion (EPE) is pleural effusion (PE) in which eosinophils account for more than 10% of pleural fluid (PF) cellularity. In published series on PE, about 7.5% of the population show EPE. The most common overall cause of PE is air or blood in the pleural space and the most common known etiology is malignant disease. Idiopathic hypereosinophilic syndrome (IHES) is a heterogeneous group of disorders consisting of hypereosinophilia, defined as an absolute eosinophil count >1.5 x 10^9/l or >1500 cells/μl in 2 consecutive samples obtained 1 month apart, combined with eosinophil-induced organ damage, when other causes of hypereosinophilia have been excluded.

We report the case of a 25-year-old man with bilateral PE (Fig. 1). Complete blood showed eosinophil concentrations of 3500/mm³, representing 26% of total white blood cells. He had shown similar results on previous tests. PF initially had a turbid appearance, with characteristics of exudate, glucose levels of 64 mg/dl and adenosine deaminase levels of 27.7 U/l. PF cytology showed no malignant cells and acutely predominant inflammatory cells, with abundant eosinophils (50–60% of total cell count). PF culture was negative for bacteria, mycobacteria and fungi. Echocardiography showed neither pericardial effusion nor infiltrative cardiomyopathy. Tests were performed to rule out secondary causes of hypereosinophilia, all of which were negative, and after comprehensive hematological studies, the diagnosis was IHES. Response to prednisone 1 mg/kg was favorable. The eosinophilia abated initially in peripheral blood and subsequently, after 7 months, in PE. Eosinophil levels in normal PF are low (less than 1%). High levels can be due to multiple causes. The most common causes of EPE are malignant (around 30%–34% 1-4), parapneumonic, and tuberculosis effusion. Other possible etiologies include asbestos, drug toxicities, parasitical infections, and Churg-Strauss syndrome, or less commonly, viral infections and pulmonary embolism. 1 Very little information is available on EPE due to IHES or causes other than those mentioned, as can be surmised from the few cases reported to date.4 The particular interest in this patient is that the disease started only as relapsing EPE. In one of the published cases, the patient had hepatosplenomegaly and ascites combined with bilateral PE, and unlike our patient, the outcome was death. In addition to bilateral EPE, the other patient presented skin lesions which were found to be due to vasculitis.5

When EPE with no apparent etiology is observed, IHES must be considered. Eosinophilia in peripheral blood in the absence of other manifestations should alert to the presence of this entity. Close collaboration with the hematologist is necessary to confirm the etiology of this finding.

References


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Lady Windermere Syndrome: Does It Occur Only in Women?

Síndrome de Lady Windermere. ¿Una entidad exclusiva de mujeres?

To the Editor,

Recent years have seen an increase in developed countries in the incidence of infections caused by environmental mycobacteria, particularly Mycobacterium avium complex (MAC) infection in immunocompetent patients; the primary radiological signs of this entity are fibrocavitary disease or nodules and bronchiectasis, predominantly in the middle lobe and lingula. The manifestation, known as Lady Windermere syndrome (LWS), has been described mostly in women over 50 years of age, while episodes in men are anecdotal.2

We report the case of a 64-year-old man, health worker, with no significant personal history or known toxic habits, who reported a 3-year history of non-productive cough, with no particular diurnal pattern, dysphonia and excess mucosity in the oropharyngeal cavity, and additionally, in the last year, asthma and recurrent episodes of low-grade fever. Forced spirometry results were as follows:

[Fig. 1. Chest computed tomography showing bilateral pleural effusion with lack of pulmonary involvement.]