Differential diagnosis in a patient with eosinophilia, hypoxemia, and heart failure. Author's reply

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We have read with great interest a recent article by Konsek-Komorowska et al. [1] entitled "Hypereosinophilic syndrome and eosinophilic granulomatosis with polyangiitis: Eosinophilic-associated inflammatory conditions with a challenging diagnosis and treatment". The letter was a response to our clinical vignette discussing a female patient with a history of eosinophilia, asthma, allergic rhinitis, chronic obstructive pulmonary disease, hypertension, coronary artery disease, embolic and hemorrhagic strokes, persistent hypoxemia, and heart failure. Based on this constellation of findings, the patient was diagnosed with hypereosinophilic syndrome (HES) with Loeffler's endocarditis.

The authors of the commentary discussed in detail the clinical presentation and differential diagnosis in eosinophilic-associated inflammatory conditions. The overlap of HES and eosinophilic granulomatosis with polyangiitis (EGPA) syndromes was brought up. In that context, several questions have been raised regarding other signs and symptoms presented by that patient.

The initial differential diagnosis included allergic bronchopulmonary aspergillosis, eosinophilic pneumonia, and EGPA. An infectious work-up was performed, and pulmonology, hematology, allergy, and rheumatology specialists were consulted. Rheumatologic studies were negative. A bone marrow biopsy was not performed, but molecular studies of the peripheral blood were negative for myeloproliferative neoplasms. Eosinophilic pneumonia was excluded based on the absence of eosinophils in the bronchoalveolar lavage. EGPA appeared less likely due to a lack of other clinical signs or symptoms of the disease. There was no evidence of venous thrombosis or systemic vasculitis; kidney function was preserved and thrombophilia tests, as well as anti-neutrophil cytoplasmic antibodies, were negative. Computed tomography showed significant mediastinal and hilar lymphadenopathy without splenomegaly.

Subsequently, the patient was diagnosed with allergic bronchopulmonary aspergillosis. The final diagnosis of HES with Loeffler's endocarditis was made after performing cardiovascular magnetic resonance that demonstrated left ventricular systolic dysfunction, as well as extensive fibrosis and fatty infiltration of the left ventricle.

In conclusion, diagnosing and treating eosinophilic-associated inflammatory conditions is challenging and requires a multidisciplinary approach [1]. Since cardiac involvement, common both in HES and EGPA, is associated with adverse outcomes, early detection is of utmost importance [3, 4]. Cardiac magnetic resonance imaging with its recent development in myocardial tissue characterization appears essential in this process [5].

Article information

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