

Eosinophilic endocardomyopathy: a case presentation

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Eosinophilic endocardomyopathy is a major cause of morbidity and mortality among patients with hypereosinophilic syndrome (HES), a group of disorders characterized by the sustained overproduction of eosinophils, where eosinophilic infiltration causes the damage to multiple organs. We present the case of a 63-year-old man who had been investigated at the out-patient clinic for malaise, effort intolerance, dry cough and cognitive disturbances six months before his presentation to our hospital. He had been diagnosed with hypereosinophilia ($51.14 \times 10^9/L$) and leukocytosis ($69.7 \times 10^9/L$). Bone marrow biopsy resulted negative for abnormal myeloid maturation or lymphoproliferative disorder. A brain magnetic resonance confirmed postischemic lesions and gastroscopy revealed esophageal varices grade I. According to immunologist's recommendation, who previously excluded systemic autoimmune disease, the patient was referred to our Cardiology Clinic for further investigations. The transthoracic echocardiography showed a dilated cardiomyopathy with global hypokinesia and ejection fraction of

40%. A multi-slice computer tomography coronarography (MSCT) excluded the presence of coronary artery disease. Cardiac magnetic resonance imaging demonstrated biventricular enlargement and global hypokinesia (trueFISP cine), myocardial oedema in the mid-cavity and in the apical segments (T2 STIR), diffuse endocardial late gadolinium enhancement of the left ventricular mid-cavity and apical segments and of almost the entire right ventricle (true FISP PSIR) indicating fibrosis/necrosis. Thrombi at both ventricular apices were also identified. These findings present the final stage in the time course of eosinophilic endomyocardial disease. The patient was dismissed with anticoagulation and immunosuppressive therapy. Two months later the patient was feeling better and the eosinophil counts significantly decreased. Eosinophilic endocardomyopathy is characterized by three stages: an acute necrotic stage significant for direct endomyocardial infiltration and damage, an intermediate phase, in which thrombi form along the damaged endocardium and a fibrotic stage characterized by endomyocardial fibrosis. Cardiac magnetic resonance imaging is an important non-invasive tool for detection of all stages of eosinophil-mediated heart damage.

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