Letter to the Editor

Myocarditis and cardiomyopathy HIV associated

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Abstract

Heart muscle involvement associated with human immunodeficiency virus (HIV) infection may present as myocarditis, dilated cardiomyopathy or as isolated left or right ventricular dysfunction. Histopathological and ultra structural findings with different degrees of cardiac-chamber dilation have been described and an important role of the cytokines tumor necrosis factor-alpha (TNF-alpha), interleukin-1 (IL-1) and IL-6 has been suggested. We present a case of myocarditis in a 47-year-old woman with HIV associated cardiomyopathy, focussing attention on heart muscle involvement in HIV disease.

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1. Case report

Cardiovascular involvement human immunodeficiency virus (HIV) associated includes heart muscle involvement, coronary artery disease [1,2], pericardial effusion, pulmonary hypertension, and the effects of highly active antiretroviral therapy (e.g. lipodystrophy, lipoatrophy, and dyslipidemia) [3]. Heart muscle involvement associated with HIV infection may present as myocarditis, dilated cardiomyopathy or as isolated left or right ventricular dysfunction [3–6]. Histopathological and ultra structural findings with different degrees of cardiac-chamber dilation have been described [6] and an important role of the cytokines tumor necrosis factor-alpha (TNF-alpha) [6], interleukin-1 (IL-1) and IL-6 has been suggested [7]. We present a case of myocarditis in a 47-year-old woman with HIV associated cardiomyopathy. A 47-year-old human immunodeficiency virus-positive(HIV+) woman was referred for the evaluation of a history of dyspnea and fever. Blood pressure values were 128/89 mmHg, the oxygen saturation was 92% on room air (the saturation increased to 97% on 5 l/min of oxygen via a facial mask). Troponin-I and inflammation indexes were positive. Standard 12-lead ECG showed a tachycardic rhythm and T- in I avL v4v5v6 leads. Conventional transthoracic echocardiography showed a biatrial dilatation (area of right atrium was 23 cm², area of left atrium was 26 cm²), mild mitral regurgitation, mild tricuspid regurgitation, a mild posterolateral pericardial effusion, an enlarged right ventricular telediastolic diameter (30 mm), a diffuse akiinesia of the left ventricle with a telediastolic diameter of 55 mm and a severe reduction in ejection fraction (15–20%) (Fig. 1a and b). This case reminds us to be aware of the possibility of significant heart muscle involvement associated with HIV positivity even with modern anti-retroviral therapy.

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The authors of this manuscript have certified that they comply with the Principles of Ethical Publishing in the International Journal of Cardiology [8].

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References


Fig. 1. (a and b) Conventional transthoracic echocardiography showed a biatrial dilatation (area of right atrium was 23 cm², area of left atrium was 26 cm²), mild mitral regurgitation, mild tricuspid regurgitation, a mild posterolateral pericardial effusion, an enlarged right ventricular telediastolic diameter (30 mm), a diffuse akinesia of the left ventricle with a telediastolic diameter of 55 mm and a severe reduction in ejection fraction (15–20%).