

HIV-1/AIDS ASSOCIATED DILATED CARDIOMYOPATHY

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Dilated cardiomyopathy (DCM) and its etiology remain to be challenging problem under age of 40. We present cases of DCM developed on the background of undiagnosed HIV-1/AIDS. We observed 13 patients at age of 29-38; nine men, four women. Searching the causes of DCM revealed HIV-1/AIDS. CD4⁺ T cell count was in the range of 99-199/mm³, viral load was from 1 440, 000 to 10,000,000 copies/ml. Patients had heart failure class 3 (NYHA). Echocardiography (EC) revealed total dilation of all cardiac chambers and reduced ejection fraction (EF) 35-41%. Other viral or opportunistic infection that could trigger development of DCM was not detected. Patients were treated with antiretroviral therapy (ART) tenofovir/emtricitabine/efavirenz-300/200/600 mg/day lifelong and monitored every 6 months. In 11 patients with good adherence to ART, increase of CD4⁺ T cells and decrease of viral load was accompanied with disappearance of clinical signs of DCM. After a year, heart size was in normal range and EF increased to 55% accompanying with digression of HIV-1. CD4⁺ T cell count was more than 350/mm³ and viral load was non-detectable. In two patients who refused to continue ART, CD4⁺ T cells less than 200/mm³ and virological failure was observed. In these patients, DCM still existed. Our study shows that long-term successful ART provides regression and even recovery of HIV-1/AIDS associated DCM. Selenium was not included in treatment showing that selenium deficiency is caused by its increased consumption by HIV and main reason of development of DCM is HIV incorporation in cardiomyocytes and its indirect influence on the vital processes of the cell. In all cases of DCM, especially less than 40-50 years should be ruled out of HIV infection.

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