The value of investigation of cardiac involvement in infection with human immunodeficiency virus in children

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Cardiac involvement in infection with human immunodeficiency virus (HIV) is particularly severe for the morbidity and mortality in these patients and therefore requires early detection for appropriate treatment.

OBJECTIVES

To emphasize the necessity and utility of current investigation of cardiac involvement in children with human immunodeficiency virus infection.

METHODS

The authors evaluated 51 HIV infected children (2-16 years old) for the manifestations of cardiac involvement in HIV infection by the clinical exam, ECG, Chest X Ray, echocardiography (echo). Staging of HIV infection / AIDS was made based on clinical and CD4 lymphocytes values, in a period of 24 months.

RESULTS

Clinical staging: 2/3 of patients: in P2f group.

Clinical signs of cardiac involvement: heart failure (11 cases), tachycardia (20 cases), deafness of the heart sounds (12), dyspnea (14 cases) and 14 cases were non-symptomatic or with signs of others diseases.

ECG: disturbances of ventricular repolarisation or sinusual tachycardia.

RxCT: cardiomegaly in 30% of cases and modifications secondary of pulmonary infections.

Echocardiographic exam: revealed cardiac lesions and involvement in 66% cases: • dilated cardiomyopathy, the most severe changes (14 cases); • pericarditis (10 cases); • isolated dilation of the LV and RV (6 cases) and only of the RV (4 cases); • LV diastolic dysfunction (14 cases); • pulmonary hypertension (6 cases).

The most severe aspects of cardiac damage have been noticed in cases with significant reduction of CD4 values, especially under 400/mmc.

Hystological exam: performed in 28 patients that died because of pulmonary infections ⇒ revealed cardiac aspects of myocarditis (1 case), myocardial and pericardial inflammatory infiltration and necrotic lesions (6).

CONCLUSIONS

• By high incidence (66% of cases) and severity of manifestations, cardiac involvement during HIV infection remains one of the most important problem of morbidity and mortality of these patients.

• Current investigation and cardiological evaluation of patients with HIV/SIDA infection, especially by echocardiography must to be performed in all the stages of the disease, even in non-symptomatic patients, for the diagnosis and follow-up of evolution.