

Endomyocarditis as a rare complication of toxocariasis

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We present a case of a patient with rare and life-threatening cardiac complication of toxocariasis.

A 53-year-old man was admitted to neurological department of hospital for recent motor weakness, ataxia, pruritus and increased body temperature to 37.5°. He had a previous history of asthma, but did not take any medications. The vital signs were blood pressure 110/70 mmHg, heart rate 110/min, respiratory rate 19/min, body temperature 37.5°. Initial laboratory investigations showed leukocytosis (29,800/ μ L) with hypereosinophilia (8.84/ μ L), elevated CK-MB (55.2/ μ L); troponin I was 29.73 ng/ μ L. Serum total IgE level was 401 IU/mL, C-reactive protein was 158.59 mg/L. Chest x-rays was unremarkable. An electrocardiogram showed sinus tachycardia and nonspecific T wave and ST depression on inferior and posterolateral leads. Computer tomography of the brain did not revealed pathology and computer tomography of the chest and abdomen showed a splenomegaly and an increased number of normal-sized mediastinal and retroperitoneal lymph nodes. Echocardiogram revealed increased left ventricle (LV) wall thickness (12 mm) with decreased LV systolic function (EF 48 %) and a mass 14 mm in diameter from lateral wall of LV, that reduced mobility of mitral valve posterior leaflet. Peripheral blood eosinophilia, elevated level of cardiac enzymes, previous history of asthma, LV wall thickness, decreased LV systolic function are the important clues for early suspicion of eosinophilic myocarditis. While all this symptoms may be a parts of paraneoplastic syndrome of heart malignancy, our aim was to differential diagnosis between this diseases. We performed screening for helminthiasis using an in-house enzyme-linked immunosorbent assay. The next step we planned to performe endomyocardial biopsy, but about 6 hours after arrival patient had ventricular fibrillation and unsuccessful resuscitation. Screening for helminthiasis revealed a positive titer for *Toxocara* spp of 6.2 optical density ([OD] normal, <0.5 OD). Autopsy and histological examination showed myocardial disarray, interstitial oedema with diffuse eosinophilic inflammatory infiltrate and myocardial necrosis, nonbacterial thrombotic endocarditis with mitral valve.

Thus, patient had Toxocariasis-associated endomyocarditis. Eosinophilic myocarditis is one of the most fatal and rare complications of hypereosinophilia. One of the reasons of hypereosinophilia is parasite infection. In case of heart injury accompanied by fever and eosinophilia with allergic skin rashes, tissue infestation by parasites should be considered.



