


CARDIOVASCULAR FLASHLIGHT

Mycobacterium avium causing cardiac tamponade in an immunocompetent patient

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A 60-year-old female patient, previously healthy, presented acute symptoms of fever, atypical chest pain, dyspnea, and tachycardia. Transthoracic echocardiography (Panels A, B and C) and magnetic resonance imaging (Panels D and E) showed pericardial effusion (white arrows: Panel A–E) with diastolic restriction suggestive of cardiac tamponade. The patient was submitted to an urgent pericardial drainage, which removed 700 ml of sero-hematic fluid. Pericardium biopsy (Panel F) identified abundant fibrin deposition and mild perivascular lymphocytic inflammatory infiltrate, but granulomas or necrosis were not observed, nor were acid-fast bacilli in the Ziehl-Neelsen acid-fast staining procedure. However, the fluid analysis showed adenosine deaminase >46 UI/L and, thus, empirical treatment for tuberculosis with rifampin, pyrazinamide, isoniazid, and prednisone was introduced. Intracellular Mycobacterium avium was identified using gel electrophoresis analysis (Panel G) of Mycobacterium polymerase chain reaction, which showed amplification of targeted fragment (133 pb), as demonstrated: 1 = case; 2 = negative control; 3 = positive control; 4 = negative control; 5 = ladder (50 pb, Invitrogen). Human immunodeficiency virus infection, malignancy, haematological disorders, and rheumatic diseases were excluded. After 1 year of treatment with clarithromycin, ethambutol, and prednisone the patient had complete resolution of symptoms and 3 months later all the blood tests presented normal results and the patient was in good health condition. Pericarditis caused by Mycobacterium avium is not infrequent in immunocompromised patients, but this condition is extremely rare in healthy patients, mainly when it leads to cardiac tamponade.