Rupture of a giant aneurysm of the pulmonary artery caused by schistosomiasis

Rafael B. Piveta*, Ana L. Arruda, Ana C. Rodrigues, Jairo A. Pinheiro, and José L. Andrade

Echocardiography Laboratory, Institute of Radiology—University of São Paulo Medical School, Av. Dr Enéas de Carvalho Aguiar, 255, São Paulo 05403900, Brazil
* Corresponding author. Tel: +55 1126616144, Fax: +55 1131551239, Email: rbpiveta@hotmail.com

A 41-year-old female patient with a previous diagnosis of hepatosplenic form of schistosomiasis and alcoholic hepatic disease presented with intermittent chest pain and confusion during outpatient evaluation for liver transplantation.

Physical examination revealed skin pallor, mild jaundice, ascites, and bilateral lower-extremity oedema. Cardiac rhythm was regular, with a systolic murmur at the tricuspid area and diastolic murmur at the pulmonary area. Chest X-ray showed cardiac enlargement and pulmonary artery dilation.

Transthoracic echocardiogram demonstrated aneurysmal dilatation of the pulmonary artery (8.3 cm diameter, Panels A and B) as well as lack of coaptation of the pulmonary valve leaflets with severe pulmonary regurgitation (Panel C). There was elevation of the pulmonary pressures with mean and systolic values of 44 and 52 mmHg, respectively. The right ventricular systolic function was preserved. Peripheral injection of agitated saline microbubbles revealed the presence of intense delayed contrast enhancement of the left atrial and ventricular cavities, suggestive of intrapulmonary shunt (Panel D).

Right cardiac catheterization and computed tomographic angiogram confirmed the echocardiographic findings (Panels E and F).

Nineteen days later, the patient presented with sudden worsening of dyspnoea and chest pain. While in the emergency room, she had rapidly progressive hypovolaemic shock and subsequently death. Autopsy showed ruptured pulmonary artery and cardiac tamponade.

Schistosomiasis is an infectious disease with high prevalence in the world. The aneurysm of the pulmonary artery is a rare condition, and its rupture has few reported cases in the literature. The association of pulmonary artery aneurysm and schistosomiasis is very rare, and sudden cardiac death as reported in the case herein emphasizes the importance of its description.