Asymptomatic coronary artery aneurysms: echocardiography, cardiac magnetic resonance, and coronary angiography assessment

José Alberto de Agustín*, Vera Lennie, and Jose Luis Rodrigo
Instituto Cardiovascular, Hospital Clínico San Carlos, Profesor Martin Lagos s/n, 28040 Madrid, Spain
* Corresponding author. Tel: +34 696 228197, Fax: +34 915 649716, Email: albertotor@hotmail.com

An asymptomatic 55-year-old man with a previous history of hypertension and dyslipidaemia was referred to our clinic as a result of the finding of an enlarged cardiac silhouette in a routine chest radiography. His physical examination and electrocardiogram was unremarkable. Transthoracic echocardiogram revealed two spherical masses located at both right and left atrioventricular sulcus. The right mass protruded into the right heart chambers (Panel A). Transoesophageal study showed a solid mass with a well-delineated external border and a small echo-free cavity (Panel B). Colour Doppler demonstrated the presence of blood flow inside the mass. Cardiac magnetic resonance disclosed a huge aneurysm of the right coronary artery measuring 9 × 8.5 cm², mostly occupied by thrombus (Panels C and D). Also a dilated left coronary system was noted. Coronariography confirmed the presence of a giant aneurysm in the proximal tract of the right coronary artery (Panel E). Left coronaryography showed diffuse coronary ectasia without obstructive coronary disease (Panel F). The left ventriculogram was normal. The patient had no previous history of Kawasaki’s disease in his childhood, and the screening for vasculitis and other connective tissue disorders was negative. We then considered that the most likely aetiology was atherosclerosis. Cardiac surgery was recommended, but the patient declined and did not attend the follow-up appointments.