Mycotic pseudoaneurysm of the ascending aorta

Jose Alberto de Agustín*, Jose Juan Gomez de Diego, Jose Luis Rodrigo, Carlos Macaya, and Leopoldo Perez de Isla

Cardiovascular Institute, Hospital Universitario San Carlos, Profesor Martin Lagos s/n, 28040 Madrid, Spain

* Corresponding author. Tel: +34 913303394; Fax: +34 913303290, Email: albertutor@hotmail.com

A 49-year-old man consulted for progressive dyspnoea and bilateral lower extremity oedema. His history included a hospital admission because of a multi-resistant *Escherichia coli* septicemia 3 years before. Transthoracic echocardiography revealed a calcified mass adjacent to the aortic root (Panel A). Transoesophageal echocardiography showed a large ascending aorta pseudoaneurysm originating at the level of Valsalva sinuses, and communicating with the anterior aspect of the aortic root (Panel B, see Supplementary data online, Video S1). Colour Doppler imaging demonstrated “to-and-fro” (bidirectional) flow into and out of the pseudoaneurysm (Panel C, see Supplementary data online, Video S2). The aortic valve was trileaflet, with a shortened and thickened right coronary cusp causing severe central aortic regurgitation, but no valvular vegetations were identified. Three-dimensional transoesophageal echocardiography improved the spatial assessment of the pseudoaneurysm (Panels D and E, asterisk; see Supplementary data online, Videos S3 and S4), including direct en face visualization of the aortic wall defect which measured 13 × 9 mm (Panel F, see Supplementary data online, Video S5). Multislice computerized tomography demonstrated an 8 × 5 cm, partially thrombosed and peripherally calcified pseudoaneurysm on the left anterolateral aspect of the aortic root (Panels G, H, and I, asterisk), with the coronary ostia arising from both sides of the pseudoaneurysm. Cardiac surgery was recommended, but the patient declined.

Mycotic pseudoaneurysm of the aorta is a rare but life-threatening sequela of bacteraemia. If unattended, exposes the patient to false aneurysm rupture and high mortality risk. Thus, surgery is indicated as soon as the diagnosis is made. Several cases of a transcatheter closure of an aortic pseudoaneurysm have been previously reported. However, in this case, this option was considered inappropriate due to the proximity of the coronary ostia.

AA, ascending aorta; AV, aortic valve; LA, left atrium; LC, left coronary artery; LV, left ventricle; RA, right atrium; RC, right coronary artery; RV, right ventricle.

Supplementary data are available at European Heart Journal — Cardiovascular Imaging online.

Published on behalf of the European Society of Cardiology. All rights reserved. © The Author 2014. For permissions please email: journals.permissions@oup.com