Symptomatic pericardial cyst in the presence of partial congenital absence of the pericardium

Matthew S. White*, Kunal N. Bodiwala, Alison L. Bailey, and Vincent L. Sorrell

Division of Cardiovascular Medicine, The Gill Heart Institute, University of Kentucky, 900 South Limestone Street, Room 326 CTW, Lexington, KY 40536-0200, USA

* Corresponding author. Tel: +1 859 323 5479; Fax: +1 859 323 6475; Email: matt.white@uky.edu

A 38-year-old male was admitted with exertional syncope, atypical chest pain, sinus bradycardia (46 bpm), and non-orthostatic hypotension (90/45 mmHg). Chest X-ray (Panel A) showed cardiac levoposition, flattening, and elongation of the left heart border, opacity at the left costophrenic angle, and lucency between the pulmonary artery and aorta. Transthoracic echocardiography (Panel B) confirmed a cystic anterior structure and leftward rotation of the right ventricle. Cardiac magnetic resonance imaging (Panels C and D) documented the pericardial cyst (8.6 × 3.5 cm) and insinuation of lung tissue between the aorta and pulmonary artery. Cine sequences (Supplementary data online, Video S1) confirmed paradoxical ventricular septal motion consistent with the congenital absence of the left pericardium. Exercise testing excluded chronotropic incompetence as the cause of his syncope; however, he was unable to appropriately increase his blood pressure with exercise (110/76 mmHg at rest and 116/75 mmHg at maximum stress).

Surgical inspection of his left-sided pericardial absence showed no signs of ability for herniation. The cyst was excised (Panel E), revealing a benign mesothelial-lined membrane consistent with a pericardial cyst. His postoperative course was uneventful, and follow-up chest X-ray (Panel F) showed resolution of the previous opacity at the left costophrenic angle. To our knowledge, no previous case has reported both congenital anomalies occurring in the same patient.

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 2013. For permissions please email: journals.permissions@oup.com