Dislodgement of an Amplatzer occluder device causing iatrogenic pulmonary embolism in a patient with post-infarction ventricular septal defect

Antonio Sorgente, Giovanni B. Pedrazzini, Francesco F. Faletra, Tiziano Moccetti, and Angelo Auricchio*

Fondazione Cardiocentro Ticino, Vio Tesserete 48, Lugano 6900, Switzerland
* Corresponding author. E-mail: angelo.auricchio@cardiocentro.org

An 80-year-old man admitted to the emergency department with chest pain (lasting for at least 36 h) presented with severe dyspnea, low blood pressure (80/60 mmHg), third heart sound, 3/6 systolic murmur at Erb point, and right-sided inspiratory crackles. ECG revealed sinus tachycardia, low-amplitude R-waves in limb leads, and ST elevation in V1–V5 (Panel A). Transthoracic echocardiogram showed severe depression of left ventricular function and mid-ventricular septal defect, confirmed by conventional and 3D transesophageal echocardiography (TEE) (Panel B, left side). Coronary angiography showed significant lesions of all three coronary vessels. Owing to patient’s refusal to undergo surgical repair and revascularization, percutaneous angioplasty of left anterior descending and percutaneous ventricular septal defect closure (PVSDC) using an Amplatzer occluder device was performed. The procedure was monitored by TEE (Panel B, right side). The day after procedure, patient’s clinical conditions worsened (severe cardiogenic shock), systolic murmur re-appeared, and left-side reduction of lung vesicular murmur with friction rubs was noted. ECG showed a new R’ wave in leads II, III, aVR, aVF, and V1 (Panel A) raising suspicion of pulmonary embolism. Chest X-ray showed dislodgement of the device at the ostium of the left branch of the pulmonary artery (small arrows) and left pulmonary infarction (Panel C). Owing to severe multi-organ failure, there was no attempt to remove the device. Patient died 36 h after PVSDC.

Panel A ECG at the admission (left side) and the day after PVSDC (right side).

Panel B 2D and 3D TEE visualization of the ventricular septal defect (RV, right ventricle; LV, left ventricle; VSD, ventricular septal defect) before and after placement of Amplatzer occluder device.

Panel C Chest X-ray (day after PVSDC) shows dislodgement of the ventricular septal occluder device and left lung infarction.

Published on behalf of the European Society of Cardiology. All rights reserved. © The Author 2008. For permissions please email: journals.permissions@oxfordjournals.org.