Coronary aneurysm with double right coronary artery and fistula

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Video clip is available online.

A 64-year-old woman was referred to the Kaohsiung Medical University Hospital for evaluation of a mass adjoining the left cardiac border, identified on a chest roentgenogram (Figure 1, A). She had no history of Kawasaki's disease, chest trauma, or pulmonary problems, except a recent cough with whitish sputum. A grade 2 continuous murmur could be heard at the left upper sternal border. Enhanced computed tomography scans of the chest demonstrated

a huge aneurysm located superiorly to the left atrium. A 3-dimensional computed tomography scan showed a giant coronary aneurysm and double right coronary artery (Figure 1, B). Left coronary angiography (Video 1) showed a giant aneurysm of the diagonal branch (64×48 mm) with distal occlusion. Right coronary angiography (Video 2) demonstrated a double right coronary artery originating from 2 separate ostia, and the inferior one showed normal angiography. The superior one (Video 3) gave rise to a coronary fistula draining into the main pulmonary artery. Both aneurysm and fistula were surgically corrected. Twelve months after surgery, the patient was doing well.

FIGURE 1. Chest roentgenogram identified a mass adjoining the left cardiac border (A, arrow). Three-dimensional computed tomography scan shows a giant coronary aneurysm and double right coronary artery (B, with the arrows showing the double right coronary artery).

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