Giant Coronary Aneurysm Fistulous Connection to the Right Ventricle

Zhi-Qiang Ying¹, Ji Ma¹, Geng Xu¹, Shao-Xiang Weng¹ and Miao-Yan Chen²

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A 24-year-old man presented to our department with a loud grade 4/6 continuous murmur in the left sternal border. He had a 20-year history of heart murmur and thus congenital heart disease was considered. He had no chest symp-
toms. Transthoracic two-dimensional echocardiography demonstrated a gross dilatation of the proximal portion of the right coronary artery (RCA) (21 mm) (Picture 1) and a giant aneurysm (30×47 mm) (Picture 2) at the middle portion of the RCA. Color Doppler revealed blood flow communicating between the aneurysm and right ventricle (Picture 3). Coronary angiography was performed. The left coronary artery system was normal. The ordinary visualization catheter could not show the RCA clearly due to the grossly dilated lumen and extremely accelerated blood flow. A pigtail catheter was used for angiography in the aortic root and the dilation of right coronary artery, giant artery aneurysm, and fistulous connection to the right ventricle were confirmed (Picture 4).

Coronary artery aneurysm is a dilatation that exceeds 1.5 times the diameter of a normal adjacent coronary artery (1). It is a rare pathologic entity that is observed in only 0.3-4.9% of coronary angiograms (2). Right coronary artery fistulous connection to the right ventricle is a rare coronary anomaly. Fistulous connection into a cardiac chamber or vessel often causes a marked dilatation of the donor coronary artery leading to aneurismal formation. Spontaneous rupture, myocardial infarction, and thrombotic or embolic events can complicate this disease (3, 4). Surgical treatment was suggested for the present patient.

References


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