Multimodality Imaging of an Asymptomatic Female With Anomalous Origin of Right Coronary Artery From the Pulmonary Artery

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A 73-year-old woman underwent elective transthoracic echocardiography, which showed normal left ventricular (LV) and right ventricular (RV) size and systolic function and normal valves. Incidentally, multiple abnormal color Doppler signals within the interventricular septum (white arrow) raised the possibility of intracoronary collaterals (A, Online Video 1). Multidetector computed tomography angiography demonstrated anomalous origin of the right coronary artery from the proximal central pulmonary artery (PA) rather than from the aorta (A), without evidence of extrinsic compression or narrowing. Volume rendered images are shown in B and C, the latter with an anterior cut plane. Epicardial surface collaterals (white arrow) can be seen between the left main coronary artery (red arrows) and the anomalous right coronary artery (blue arrows). Multiplanar reconstruction images are shown, with an oblique section similar to a conventional short-axis image with a caudal tilt (E), and sagittal oblique image showing the RV outflow tract (F).

A maximum intensity projection reconstruction short-axis image showed the proximal and distal portions of the septal collaterals (white arrow) consistent with prominent septal perforators, corresponding to the echocardiogram findings. (D) Because of the patient’s asymptomatic status, clinical follow-up, rather than coronary reimplantation, was recommended.