Giant Left Anterior Descending Artery Aneurysm

The Value of Cardiac Magnetic Resonance Imaging

Ewa Sondej, MB BS,* Malcolm I. Burgess, MD,* John A. Holemans,† Bhavna Pandya, MD‡

Liverpool, United Kingdom

A 85-year-old man with chronic kidney disease and cardiomegaly presented with atrial fibrillation. Echocardiography revealed a large spherical structure adjacent to the anterolateral left ventricular wall (A). Thoracic magnetic resonance imaging confirmed that the structure was anterior and superior to the left ventricle (B and C, Online Videos 1 and 2). Cardiac magnetic resonance imaging revealed a large (85 × 100 × 83 mm) coronary artery aneurysm close to the main pulmonary artery (C, Online Video 3). Although the left main coronary artery had a normal origin, its course was displaced posteriorly. The aneurysm arose from the proximal left anterior descending artery. It was separate from the left ventricle and main pulmonary artery, which appeared normal (D, Online Video 3).

We report the incidental finding of a large aneurysm of the left anterior descending coronary artery. Initial echocardiography was challenging but suggested the presence of a large left ventricular aneurysm. Cardiac magnetic resonance imaging eventually clarified the diagnosis, accurately delineating the anatomic relationships.