

FIGURE 271e-8 Coronary computed tomography angiography (CTA) obtained on a 35-year-old female presenting to an outpatient clinic with a history of unexplained syncope and a 6-month complaint of intermittent, atypical chest pain occurring primarily during rest. Physical examination is normal. An exercise treadmill test is performed demonstrating good exercise capacity with no exertional chest pain or ischemic ECG changes. For persistent, unexplained symptoms, coronary CTA is obtained. **A**, Three-dimensional cardiac CT image reconstruction demonstrating anomalous right coronary artery (RCA) origin from the left coronary cusp with an acute angle takeoff (*arrow*) and an intraarterial course between the aorta (Ao) and main pulmonary artery (PA). **B**, **C**, Contrast-enhanced CTA in two-dimensional axial (**B**) and coronal oblique views (**C**) demonstrating proximal RCA intraarterial course between the Ao and main PA.

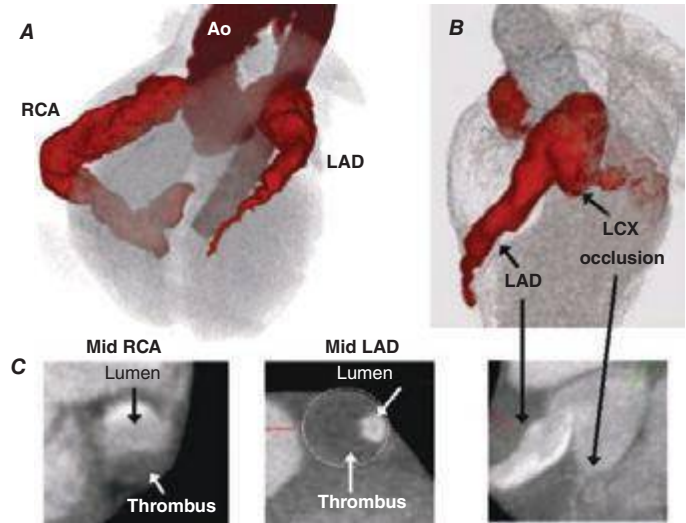


FIGURE 271e-9 Coronary computed tomography angiography (CTA) obtained from a 13-year-old boy with a history of Kawasaki disease who presented with limited exercise capacity and occasional, atypical chest pain. **A**, **B**, Three-dimensional cardiac CT image reconstruction demonstrating large three-vessel coronary artery diffuse aneurysms with proximal, nondominant left circumflex (LCX) artery occlusion. **C**, Two-dimensional contrast-enhanced coronary CTA demonstrating mid-RCA and mid-LAD thrombi that are nonocclusive layered and near circumferential thrombi, respectively, and proximal LCX occlusion. Ao, aorta; CT, computed tomography; LAD, left anterior descending; RCA, right coronary artery.

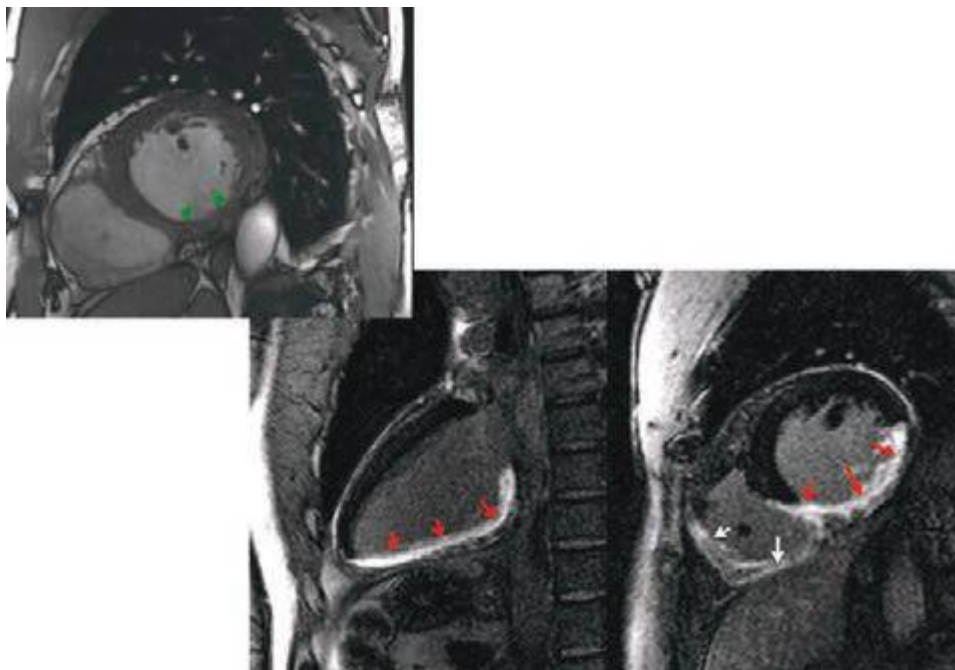


FIGURE 271e-10 A case of viability assessment in a patient with inferior myocardial infarction. The cine movie in the *upper panel* shows an area of inferior akinesis (*green arrows*). Magnetic resonance image demonstrates transmurular contrast enhancement of the inferior wall (*red arrows*) and the right ventricle (*white arrows*), which is consistent with infarction. Imaging the heart 10–15 min after injection of gadolinium allows for the accumulation of gadolinium in infarcted tissue (*red arrows*), which identifies nonviable infarcted myocardium as bright. Viability assessment, as in this case, can provide guidance for any benefits of invasive coronary intervention. In this case, the inferior wall is nonviable. Apart from the inferior wall infarction (*red arrows*), there is extensive right ventricular infarction (*white arrows*). (See Video 271e-7.)