Adult woman with giant thrombosed multiple coronary aneurysms

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A 55-year-old Caucasian woman with history of hypertension, dyslipidemia, and no relevant disease in her childhood was referred for catheterization due to a non-ST-elevation myocardial infarction. A transthoracic echocardiogram showed a rounded structure with hyperechogenic limits anterior to the auriculo-ventricular sulcus in the two-chamber view (Fig. 1A). The angiogram revealed a three-vessel disease with an aneurysm of the proximal left anterior descendent artery with severe stenosis, a significant stenosis followed by another aneurysm in the proximal circumflex (Fig. 1C) and a completely thrombosed aneurysm in the proximal right coronary (Suppl. Video 1 and 2). A multidetector cardiac computed tomography scan was then performed and revealed a calcified and partially thrombosed aneurysm of 53 mm with a diameter of 29 × 24 mm in the proximal

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Figure 1. A–H. Image matching of computed tomography scan, angiography, two-chamber view, and surgical view.
left anterior descendent (green arrow), another of 17 × 18 mm in the proximal circumflex (red arrow) and a calcified and thrombosed proximal right coronary aneurysm (blue arrow) with appropriate distal vessels (Fig. 1E–H). Supra-aortic trunks were normal. She underwent surgery for coronary artery by-pass grafting (Fig. 1B, D; Suppl. Video 3), as stenosis was the predominant feature, using both internal mammary arteries and a saphenous vein. She was discharged with no incidence.

Giant and multiple coronary aneurysms are uncommon in adulthood. Possible etiologies are atherosclerosis, Kawasaki and Takayasu disease and some systemic and infective disorders. Multi-detector cardiac computed tomography scan is an excellent technique to plan the surgical intervention as it allows a complete characterization and evaluation of the aneurysms and distal vessels.

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