Imaging in Cardiovascular Interventions

A giant in the left anterior descending artery
Um gigante na artéria descendente anterior

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A 70-year-old male, a former smoker with hypertension and dyslipidemia, was referred for cardiological consultation complaining of exertional dyspnea and atypical chest pain. His physical examination was unremarkable. The electrocardiogram showed a sinus rhythm, 75 bpm, and T wave inversion in V1-V3. The transthoracic echocardiogram revealed preserved left ventricular systolic function, without wall motion abnormalities or significant valvular changes. He underwent a treadmill exercise stress test, showing downsloping ST segment depression in leads DII, DIII, aVF, and V2-V6 (maximum 3 mm). A coronary angiography was performed, showing a sub-occlusive stenosis of the distal left main coronary artery involving the origin of the left anterior descending (LAD) artery and the left circumflex artery, a large fusiform aneurysm in the proximal LAD measuring 10 mm in diameter, and a critical ostial stenosis of the right coronary artery with ectatic disease of the proximal and medium segments (Fig. 1). A cardiac computed tomography was performed, which further enabled the delineation of the topographical anatomy of the coronary artery aneurysm (Fig. 2). Considering the 3-vessel coronary artery disease, including severe left main stenosis and the giant coronary aneurysm, the patient was referenced to cardiac surgery and underwent a successful bypass surgery. He had an uneventful postoperative course and is currently well and symptom-free.

Although a precise definition of giant coronary artery aneurysm is still lacking, they are usually considered when they exceed the reference vessel diameter by > 4 times or if they are > 8 mm in diameter. There is an adult male predilection and the most frequent cause is atherosclerosis. Surgery is the treatment of choice and the majority of patients have a good outcome.

Conflicts of interest

The authors declare no conflicts of interest.