

Imaging in Cardiovascular Interventions

A giant in the left anterior descending artery

Um gigante na artéria descendente anterior

Pedro Magalhães^{a,*}, Hélder Ribeiro^a, Sofia Carvalho^a, Nuno Ferreira^b, Paulino Sousa^a, J. Ilídio Moreira^a

^a Centro Hospitalar de Trás-os-Montes e Alto Douro, Hospital de Vila Real, Vila Real, Portugal

^b Centro Hospitalar de Vila Nova de Gaia e Espinho, Hospital de Vila Nova de Gaia, Vila Nova de Gaia, Portugal

ARTICLE INFO

Article history:

Received 20 June 2015

Accepted 26 August 2015

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.

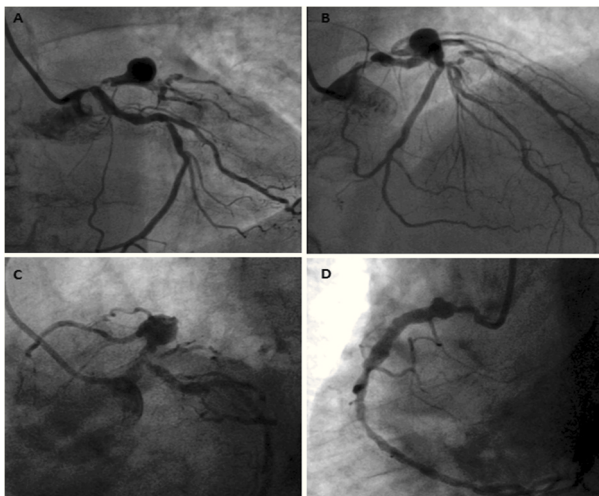


Figure 1. Coronary angiography of the left coronary artery in anteroposterior (A), right oblique cranial (B) and left oblique caudal views (C), and right coronary artery in left anterior oblique view (D).

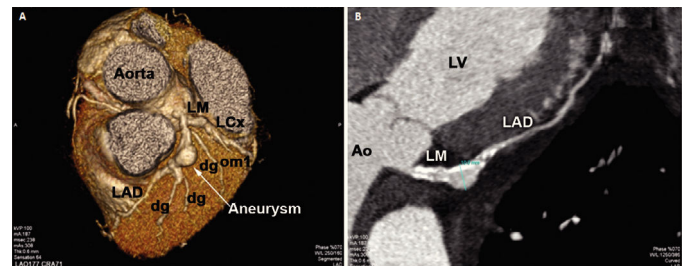


Figure 2. Pre-operative cardiac computed tomography showing 3D reconstruction (A) and detail of the left coronary artery (B). LM: left main; LAD: left anterior descending artery; LCx: left circumflex artery; dg: diagonal branch; om: obtuse marginal branch; LV: left ventricle; Ao: aorta.

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.

DOI of original article: <http://dx.doi.org/10.1016/j.rbc.2016.05.001>

* Corresponding author: Cardiology Department, Centro Hospitalar de Trás-os-Montes e Alto Douro, Hospital de Vila Real, Avenida Noruega, 5.000, Vila Real, Portugal.

E-mail: pedrogouveiamagalhaes@gmail.com (P. Magalhães).

Peer review under the responsibility of Sociedade Brasileira de Hemodinâmica e Cardiologia Intervencionista.