Coronary Artery Ectasia/Aneurysm by Computed Tomography

Ectasia/aneurisma coronario por tomografía computarizada

MACARENA C. DE ZAN, ALEJANDRO DEVIGGIANO^{MTSAC}, GASTÓN A. RODRÍGUEZ GRANILLO^{MTSAC}

These are images of a 48-year-old hypertensive man, who was admitted to hospital due to inferoposterior ST-segment elevation acute coronary syndrome (ACS). Rescue coronary angiography (CAG) (Figure 1) showed diffuse ectatic dilatation (14 mm in diameter) of the circumflex artery, consistent with thrombus (not suitable for angioplasty).

The patient was discharged with medical treatment and followed-up with computed tomography coronary angiography (CTCA) to rule out coronary fistula.

The CTCA (Figure 2) revealed diffuse aneurysmal dilatation of the circumflex artery, with 10 mm maximal luminal diameter (dashed line) and 22 mm vascular diameter (solid line), extensive mural thrombus along the entire artery (asterisk) and distal bed occlusion. There was no evidence of coronary fistula.

Coronary artery ectasia/aneurysm is a diffuse dilatation exceeding 1.5 times the diameter of the adjacent normal segments. (1) It must be differentiated from localized dilatations in areas adjacent to coronary artery stenosis and in Kawasaki disease. Its prevalence varies between 0.3-5.3%, and mainly affects middle-aged men without cardiovascular risk factors. (2, 3) Generally, it involves the right coronary artery. (4) Atherosclerosis is the underlying condition in 50-60% of cases, followed by vasculitis, and drugs (particularly cocaine), among others. Coronary artery ectasia/aneurysm is usually asymptomatic, but may present with unstable angina, ST-segment elevation ACS, ventricular arrhythmias or sudden death due to blood stasis, thrombosis, dissection and/or vasospasm. (5) It is usually diagnosed with CAG or -more recently- with CTCA. (6)

REFERENCES

1. Del Castillo S, García Guzzo ME, Guzzetti E, Arias A, Marenchino R, Belziti C et al. Coronaty Artery ANeurysms with Multivessel Involvement: a Case Report. Rev Argent Cardiol 2014;82:159-60. 2. Swaye PS, Fisher LD, Litwin P, Vignola PA, Judkins MP, Kemp HG,

et al. Aneurysmal coronary artery disease. Circulation 1983;67:134-

8. http://doi.org/b3kjbr

3. Pinar Bermúdez E, López Palop R, Lozano Martínez-Luengas I, Cortés Sánchez R, Carrillo Sáez P, Rodríguez Carreras R et als. Ectasia coronaria: prevalencia, características clínicas y angiográficas. Rev Esp Cardiol 2003;56:473-9. http://doi.org/63f

4. Ramappa P, Kottam A, Kuivanemi H, Thatai D. Coronary artery ectasia- is it time for a reappraisal? Clin Cardiol 2007;30:214-7. http://doi.org/d9vkg3

5. Fareh S, Tabib A, Julié C, Loire R. Large coronary artery aneurysms. A study of 20 clinical cases in the elderly. Arch Mal Coeur Vaiss 1997;90:431-8.

6. Rodriguez-Granillo GA, Rosales MA, Pugliese F, Fernandez-Pereira C, Rodríguez AE. Prevalence and characteristics of major



Fig. 1. Coronary angiography. Diffuse ectasia of the circumflex artery (14 mm in diameter) consistent with thrombus and total distal occlusion.



Fig. 2. Curved multiplanar reconstruction. Diffuse aneurysmal dilatation of the circumflex artery, with 10 mm maximal luminal diameter (dashed line) and 22 mm vascular diameter (solid line), with extensive mural thrombus along the entire artery (asterisk) and distal bed occlusion.

and minor coronary artery anomalies in an adult population assessed by computed tomography coronary angiography. EuroIntervention 2009;4:641-7. http://doi.org/c75x6d

Rev Argent Cardiol 2015;83:434-434. http://dx.doi.org/10.7775.rac.v83.i5.6547

Address for reprints: Macarena C. De Zan - Av. Maipú 1668 - (1602) Vicente López, provincia de Buenos Aires - e-mail: maca_dezan@hotmail.com

Diagnóstico Maipú. Department of Cardiac Imaging (CT scan & MRI) Full Member of the Argentine Society of Cardiology