References


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Effort syncope and pencil-point left main coronary artery: cause or unusual finding?

Cláudia Jorge*, Pedro Canas da Silva, Nuno Lousada, and Fausto J. Pinto

Department of Cardiology, University Hospital Santa Maria, Lisbon 1750, Portugal
* Corresponding author. Tel: +351 913251313, Email: c_jorge@sapo.pt

A 29-year-old man with Eisenmenger’s syndrome associated to pulmonary artery hypertension (PAH) under combined treatment with phosphodiesterase-5 inhibitor and an endothelin receptor antagonist, resorted to Cardiology consultation with recent recurrent exertional syncope. Workup included a computed tomography pulmonary angiography that showed a pulmonary artery aneurysm (PAA) suspicious of inducing left main coronary artery (LMCA) compression. Coronary angiography disclosed an LMCA eccentrical narrowing at the ostium that smoothly tapered open distally: pencil-point like (see Supplementary material online, Panel A). The intravascular ultrasound (IVUS) confirmed the LMCA extrinsic compression, by the slit-like narrowing of the ostium, proximal, and mid LMCA shafts, without evidence of underlying atherosclerosis (see Supplementary material online, Panels A.1 and A.2).

The high surgical risk imposed by the PAH favoured LMCA percutaneous intervention. A bare-metal stent 4.0 × 15 mm (Tsunami Gold, Terumo Co., Tokyo, Japan) was deployed with good angiographic result (see Supplementary material online, Panel B) and well appositioning was confirmed by IVUS (see Supplementary material online, Panel B.1). The patient became unprotected asymptomatic, as well as at 11 months follow-up.

Extrinsic LMCA compression by a PAA is a rare, but potentially fatal complication of PAH. Angina is the most typical manifestation. To our knowledge, this is the first reported case of recurrent exertional syncope caused by LMCA compression. The gold standard for this diagnosis is coronary angiography with IVUS.

Treatment recommendations are debatable. The percutaneous coronary intervention (PCI) technical feasibility, the ability to use only one stent, the low restenosis rate, and the high surgical mortality of PAH patients, particularly in cardiac surgery setting, should make unprotected LMCA expected PCI the preferred treatment strategy in selected patients.

Supplementary material is available at *European Heart Journal* online.

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