Image in cardiology

Symptomatic Late-acquired Coronary Dissection: Value of Intracoronary Images

Disección coronaria diferida sintomática: valor de la imagen intracoronaria

Roberto del Castillo Medina,* Lorenzo Hernando Marrupe, and Javier Botas Rodríguez

Servicio de Cardiología, Hospital Universitario Fundación Alcorcón, Alcorcón, Madrid, Spain

An 80-year-old man, who was hypertensive, diabetic, and a smoker, was referred to our center due to unstable angina. He had been admitted to another center 3 months previously for a non-Q-wave infarction where he underwent percutaneous revascularization of the anterior descending artery and proximal and middle portions of the right coronary artery using 3 standard stents.

Right coronary angiography showed a double lumen image in the middle third, coinciding with the artery portion treated previously, providing an angiographic image of apparent dissection (Figs. 1A–E, arrows). Intracoronary ultrasound confirmed the presence of various phenomena (Fig. 2): a) incorrect positioning and underexpansion of both distal stents (arrows); b) contrast transfer to a parallel space with a semicircular cross-section (asterisk); and c) persistence of the intima-medial interface in the vessel wall (arrow tip) and the presence of an intimal/neointimal layer covering the outer surface of the stent.

The potential causes of these findings could have been the following: a) unsuitable selection of stent size in an artery with spasm and thrombus; b) partially subintimal trajectory of the stents; and c) dissection/intramural hematoma after stent implantation and late double lumen development due to reabsorption of the thrombotic content, or a combination of these causes.

An angioplasty was performed on the stent with appropriately-sized high pressure non-compliant balloons to position the stents properly and obliterate the adjacent lumen (Figs. 3A–E). The intracoronary ultrasound made a decisive contribution to the choice of materials and helped optimize the result.

* Corresponding author:
E-mail address: rcastillo@fhalcorcon.es (R. del Castillo Medina).
Available online 25 July 2012