Abstract: P787

Acute coronary syndrome in young woman: the role of optical coherence tomography.

Authors:
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Topic(s):
Acute Coronary Syndromes: Angiography, Invasive Imaging, FFR

Citation:
We present the case of a 32 –year-old Spanish woman, half African descent, active smoker (20 - daily-cigarettes) under treatment with hormonal contraceptives (norgestimate and etinyl estradiol) who was admitted to our coronary care unit due to a high risk acute coronary syndrome (ACS) without ST elevation. She presented with angina-like chest pain, deep inverted T waves in anterior leads on the EKG and elevated troponin I (0,4 ng/ml). A coronary angiography was performed in less than 24 hours which showed a contrast repletion defect in the proximal segment of the left anterior descendent coronary artery (LAD) very suggestive of coronary thrombus. Intracoronary optical coherence tomography (OCT) was acquired in proximal LAD demonstrating the presence of a large thrombus with a practical complete occlusion of coronary lumen. Based on the above OCT findings, inhibitor of the platelet glucoprotein lIb/IIIa receptor was administrated followed by thrombus aspiration without stent implantation. Significant improvement was observed in the control coronary angiography projections.

The patient continued the regular hospitalization process under triple antithrombotic therapy. At the fifth day of hospitalization, she developed another episode of persistent angina-like chest pain with new inversion of T waves in anterior leads on the EKG. It was decided to urgently repeat the coronary angiography which revealed no apparently coronary stenosis (Image 1). Complementary intraluminal coronary imaging was acquired with the OCT system. The OCT demonstrated large coronary thrombus in the proximal LAD, unappreciated with the coronary angiography (Image 1). Inhibitor of anti lIb-IIa GP receptor and thrombus aspiration were performed with resolution of chest pain and ischemic electrical changes on the EKG. No complications were recorded and she was discharged few days after, under current treatment of ACS.

Discussion
OCT is an optical intraluminal coronary system which provides a precise image of coronary lumen with high definition of intimal layer. Its utility and feasibility has been widely proved in different scenarios during interventional procedures. We present a clinical case in which we show the usefulness of the OCT system in ACS. The majority of the ACS are caused by plaque rupture, but there are cases in which different etiologies could be slightly hidden: spontaneous coronary dissection, coronary embolisms or coronary thrombus without plaque. The OCT system provides more precise information for diagnosis and treatment making- decision in these complex scenarios.
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