Coronary thrombus after cannabis consumption: the important role of intracoronary imaging modalities

Trombo coronario tras consumo de cannabis: la importancia de la imagen intracoronaria

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To the Editor,

Acute myocardial injury in young adults may be a challenging finding. Although coronary artery disease associated with traditional cardiovascular risk factors is possible, other etiologies like the use of recreational drugs, myocarditis, coronary embolism, spontaneous coronary artery dissection, or coronary vasospasm should be considered as well.1 Intracoronary imaging modalities provide diagnostic information added to invasive coronary angiography on coronary lesion features, and are useful to guide percutaneous coronary interventions.2

This is the case of a 29-year-old male patient with a history of smoking. His family history included coronary artery disease, but not at a young age. The patient presented to the emergency room with signs of acute chest pain radiating down his left arm the morning following a night of heavy alcohol and cannabis consumption.

The 12-lead electrocardiogram revealed sinus rhythm, heart rate of 60 beats per minute, and slight and diffuse ST-segment elevation (figure 1A). Blood biochemistry analysis revealed elevated troponin I levels [37.6 ng/mL; normal values < 0.045 ng/mL]. The transthoracic echocardiogram revealed the presence of preserved left ventricular systolic function with normal heart wall motion kinetics, and no evidence of structural heart disease.

Although the early suspected diagnosis was myopericarditis, and the patient was already pain-free, he was referred for elective invasive coronary angiography—via right radial artery—24 hours after hospital admission. We first visualized a dominant right coronary artery with no significant disease. Afterwards, the left main coronary artery angiography showed no significant disease on either the left main or circumflex arteries, but a small filling defect in the proximal segment of the left anterior descending coronary artery (figure 2A). To confirm the lesion, an intracoronary imaging modality—optical coherence tomography—was prescribed (video 1 of the supplementary data). This time, we observed a fibroadipose atherosclerotic plaque with no signs of instability with some reminiscent thrombus on the surface of the plaque (figure 2B). The lesion mechanism was thought to be definite plaque erosion (according to the classification by Kolte et al.3). The patient was successfully discharged on dual antiplatelet therapy and behavioral restriction regarding drug consumption.

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CONFLICTS OF INTEREST

None reported.

SUPPLEMENTARY DATA

Supplementary data associated with this article can be found in the online version available at https://doi.org/10.24875/RECICE.M22000356.

REFERENCES


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