

Letters

TO THE EDITOR

Repeated Intracoronary Imaging in Spontaneous Coronary Artery Dissection



Weighing Benefits and Risks

We read with interest the clinical case of a 50-year-old lady with spontaneous coronary artery dissection (SCAD) reported by Díez-Delhoyo et al. (1). Because SCAD is increasingly diagnosed in clinical practice, we would be very grateful if the authors could clarify some aspects of the case and expand on their interpretation of the clinical evolution of the patient.

Overall, the initial conservative management followed by the authors in this patient without ongoing extensive ischemia or hemodynamic instability was in agreement with available knowledge (2). We also understand and appreciate the use of optical coherence tomography (OCT) imaging to clarify the etiology of the initial presentation. However, it is unclear why 4 days later, for surveillance purposes, the patient was scheduled for another invasive procedure, in which OCT was again used, once the diagnosis had been clearly established. As a matter of fact, intracoronary instrumentation and hydraulic trauma related to OCT imaging, which may extend the vessel flap or interfere with the ongoing vascular healing process (2), might account for the vessel occlusion that occurred within the following 24 h. This seems to us a more plausible explanation than a thrombogenic role of the intimal-media nudity, which is frequently present in SCAD. Moreover, iatrogenic dissections have shown more frequent in already spontaneously dissected vessels (3).

An alternative message of this case might be, therefore, that invasive follow-up studies of SCAD should be limited to cases who had the potential risks out-weighted by the expected benefit of a repeat observation. In such cases, it might be safer postponing the study until vessel healing is expected, or using noninvasive imaging modalities such as computed coronary angiography (4), which may be

especially useful for surveillance of proximal dissected segments.

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REPLY: Repeated Intracoronary Imaging in Spontaneous Coronary Artery Dissection



Weighing Benefits and Risks

We have read with great attention the letter written by Dr. Macaya and colleagues following our recently published case of spontaneous coronary artery dissection (SCAD) (1). First, we would like to thank them for their interest in our article. Second, we agree that early invasive re-evaluations need to be fully justified. Our patient had no definite ischemic symptoms nor hemodynamic or arrhythmic instability before re-evaluation. However, we decided to perform the second procedure due to the large and proximal segment with type 1 dissection and patient concerns of an eventual recurrence during hospitalization (2).

We also agree that optical coherence tomography imaging entails certain risks in SCAD patients, but its pivotal value for a precise morphological coronary

assessment has been indicated. We would like to remark that, during the second procedure, the right coronary artery engagement and the optical coherence tomography run were successfully performed following a meticulous technique, with no immediate complications (iatrogenic dissection, flow worsening, or flap progression) and with no traces of thrombi formation. Importantly, coronary occlusion was evident, not immediately after this procedure, but 24 h later, following an intense Valsalva effort due to physiological needs. Thus, we think that 2 unique elements did account for vessel failure.

The first element, the presence of a large segment with medial exposure and total occlusion of the true lumen from the right coronary artery ostium. The well-known thrombogenic risk of collagen/smooth muscle cells when exposed to circulating blood, and the disappearance of the medial thromboresistance such as a destruction of its architecture, are features to be considered in large type 1 SCAD. Of note, these characteristics are not invariably present in type 2 SCAD, the most frequent kind (2). The second element, the Valsalva maneuver and subsequent abrupt intrathoracic pressure variations, showed a clear temporal cause-effect relationship in our case and may have produced blood flow velocity changes and shear stress modifications in both true and false lumens.

Finally, definitive evidence on outcomes and optimal treatment strategies in SCAD patients is lacking (3). Some predictors of recurrences have been described (2), but this elusive and challenging scenario warrants further research before one can categorically state which subgroups of patients (i.e., those with large, nude medial coronary segments) may or may not benefit from early invasive or noninvasive re-assessments and interventions.

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Research and Therapeutic Nihilisms in Chronic Kidney Disease



We congratulate Baber et al. (1) for their new analysis of the PROMETHEUS registry. Large real-life registries are critical to confirm the efficacy and safety of new drugs and provide data for key subgroups of patients who are under-represented in clinical trials (CT). Although patients with chronic kidney disease (CKD) compose between 20% and 40% of acute coronary syndromes, they were under-represented in the PLATO (Study of Platelet Inhibition and Patient Outcomes) and TRITON-TIMI 38 (Trial to Assess Improvement in Therapeutic Outcomes by Optimizing Platelet Inhibition with Prasugrel-Thrombolysis in Myocardial Infarction 38) trials. In the present study, Baber et al. (1) investigated the real-life outcome of prasugrel compared with clopidogrel in acute coronary syndromes undergoing percutaneous coronary intervention based on kidney function. They identified a lower use of prasugrel in this high ischemic risk population. This is related to therapeutic nihilism, which is well recognized in patients with CKD. Another key result is the lack of significant difference in outcomes after adjustments between prasugrel and clopidogrel (1). However, it should be acknowledged that this lack of significant difference does not imply a lack of benefit of new P2Y₁₂-ADP receptor antagonists given the limited power of the analysis and the methodology.

The present study raises critical issues regarding the current trend in CT. In fact, for safety reasons, CT investigating new drugs or interventions often exclude the most severely diseased patients. This not only limits the ability of the intervention to demonstrate superiority but also prevents those who would derive most benefit from these improvements to be eligible for them. Accordingly, CKD remains a cumbersome population with high ischemic and mortality rates (2). In addition, in patients with CKD high on-treatment platelet reactivity is not only associated