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Reconsidering Spontaneous Coronary Artery Dissection Mimicking Takotsubo Cardiomyopathy

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Short Communication

Recently Antonio Ruggiero et al. [1] published an interesting case of a young 39-year-old woman with acute chest pain following a quarrel with her mother, mimicking Takotsubo cardiomyopathy (TT), due to spontaneous coronary artery dissection (SCAD) of the left anterior descending artery (LAD) treated with three bioresorbable vascular scaffolds (BVS) implantation.

In this respect, here we would like to do further consideration. Firstly, SCAD and TT share some intriguing contact points: they both affect mostly female gender, usually young in which stress has a strong influence. In this light, we here suggest a provocative idea; it could be plausible that a SCAD arising from mid to distal of a wrapping LAD, as appears in this case, has compromised the mid-distal anterior and posterior left ventricular wall kinesis thus mimicking a TT. Conversely, a TT due to hyperkinesis of the basal left ventricular segments could damage the mid LAD due to high mechanical solicitations on the transition point between hyperkinesis and akinesia: the chicken or the egg? We believe that in the occurrence of SCAD should be excluded also a TT diagnosis and vice-versa.

Moreover, last year our group proposed a flow-chart for SCAD diagnosis and management [2,3]. According to our score, the case here presented could benefit of an optical coherence tomography (OCT) at first because of higher resolution images and also considering a BVS approach.

Apropos of the management, we have suggested a dual approach, for vessel diameter ≥ 3.0 mm in presence of symptoms/hemodynamic instability we suggest BVS implantation as first line treatment mostly because of the young age and low atherosclerotic burst [4,5] in the light of morphological and functional vessel restoration after reabsorption thus avoiding eternal metal stent and higher risk of long-term complication in case of a full-metal jacket angioplasty caused by haematoma propagation.

On the other side, patient hemodynamically stable/asymptomatic and if SCAD involves a distal vessel or its diameter is <3.0 mm, we suggest to consider a conservative

management firstly, according to the clinical/angiographic characteristics of the patient [3].

We agree with Jacqueline Saw about a conservative strategy at first in this case if stabilized patient. Although the kind of conservative approach is not universally approved. In fact, aspirin and beta-blockers are widely advocated but should be kept in mind that this issue is strongly different from atherosclerosis. So, dual antiplatelet therapy and statins could worsen the prognosis in these patients [6,7].

On the other hand, we agree with Alfonso et al. [8], when a BVS is necessary could be most attractive sealing the most proximal segment of the vessel interested closing the entry door. After all, "less is better" in this matter.

Although larger studies are needed, SCAD interest is increasing thanks to a study group born under the umbrella of the international cardiology societies and an Experts survey still ongoing in which 609 first/corresponding authors of SCAD articles share their experience on management of this underdiagnosed entity. Interesting information will come out from all these efforts hopefully for a shared decision-making.

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