

## Do spontaneous coronary artery dissections always need intervention in patients with no atherosclerosis?

To the Editor,

We have read the article entitled "Recurrent spontaneous dissection affecting different coronary arteries of a young female" written by Ermiş et al. (1) published in the February 2016; 16: 137-40 issue of the *Anatol J Cardiol*. It is a very demonstrative and interesting article. The authors have reported the case of a 31-year-old female with recurrent spontaneous coronary artery dissections in different coronary arteries, who underwent multiple stenting and coronary artery bypass grafting (CABG).

The authors of this study have noted that the pathogenesis of the coronary artery dissection is not completely well understood. Several factors such as trauma, idiopathic etiology, smoking, and emotional stress are usually responsible for the etiology of spontaneous coronary artery dissections. Further, there is a tear between the intima and media, resulting in a false lumen, which leads to the compression of the true lumen; this in turn leads to distal myocardial ischemia, infarction, or sudden death. These dissections may usually heal spontaneously without any intervention, particularly, in moderate- or small-sized coronary arteries. However, they may also occlude the true lumen and lead to an acute coronary syndrome that may require a percutaneous coronary intervention (PCI) (2-4). There are some reports

about the optimal treatment of spontaneous coronary artery dissections either by stenting and coronary artery bypass grafting or by conservative therapy (5-8).

In the present case report, the subject was a nonsmoker 31-year-old female with no typical chest pain and no atherosclerotic risk factors. There are some comments that need to be discussed. The authors noted that the electrocardiogram (ECG) showed an acute anterolateral myocardial infarction during admission; however, a figure of the ECG is absent. Further, coronary angiography revealed spontaneous dissection of the left anterior descending artery (LAD), involving a complete occlusion of the artery. There are some reports (9-10) regarding the spontaneous healing of the dissected arterial segments with conservative treatment, where a normal coronary flow may be restored. Coronary artery dissections in the mid and distal parts of the coronary vessels may be treated using a conservative approach. However, life-threatening and progressive dissections in the proximal part of the coronary vessels during the acute stage of the disease should be treated with PCI or CABG. It is important to decide which of the following treatments are best for treating spontaneous coronary artery dissections: angioplasty and stenting or conservative approach. Intravascular ultrasound (IVUS) and optic coherence tomography (OCT) are used to confirm the diagnosis of whether the condition is serious or not in the selected patients. IVUS or OCT could be useful in detecting intramural hematoma and relation of LAD and side branches in the presented case. On the other hand, PCI in coronary artery dissection may be associated with either failure of the procedure or complications with propagation of dissection that need to be treated with coronary stenting using a full metallic jacket covering of a long segment of the coronary artery or coronary bypass surgery. In the present case report, it can be considered that if a conservative treatment with heparin and nitroglycerin was administered for 24 or 48 h, the patient may not need multiple stenting or coronary artery bypass grafting surgery.

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