

# Management of left ventricular thrombosis in patients with apical aneurysm

Emre Yalcinkaya<sup>a</sup>, Baris Bugan<sup>b</sup>, Murat Celik<sup>a</sup>, Salim Yasar<sup>a</sup>, Mustafa Demir<sup>a</sup>

<sup>a</sup> Gulhane Military Medical Faculty, Department of Cardiology, Ankara, Turkey

<sup>b</sup> Malatya Army Hospital, Department of Cardiology, Malatya, Turkey

We read with interest the article by Valbusa et al. [1] entitled “What happened to a thrombus during apical ballooning syndrome: a case report”, which is published in Swiss Medical Weekly.

The authors presented a case of left ventricular thrombosis (LVT) in a patient with apical ballooning syndrome (APS). They managed the patient with heparin and warfarin, and the patient had two embolic events during the same hospitalisation. They concluded that clinicians must be aware of the possible risk of embolisation, and recommended transthoracic echocardiographic follow-up in all patients with ABS. Although the case is interesting and gives detailed information about the clinical course of LVT in APS, some comments may be of interest.

Apical ballooning syndrome is a clinical syndrome of reversible left ventricular dysfunction in mid to apical segments [2]. It is often preceded by emotional stress or exacerbation of an existing medical condition, and it presents with symptoms resembling those of a myocardial infarct. Cardiac wall motion abnormalities and symptoms tend to improve in about a week [2].

Even in patients with normal epicardial coronary arteries, cardiac magnetic resonance (CMR) imaging is a useful imaging modality for determining the extent of the regional wall motion abnormality and differentiating cardiomyopathies, especially when the aetiology remains unclear and the clinical course of the diseases is different [2, 3]. On CMR imaging, APS is characterised by no or minimal late gadolinium enhancement (LGE), whereas myocardial infarction is characterised by subendocardial LGE [2].

Left ventricular thrombosis carries a high risk of embolisation [4]. Besides improvement in left ventricular function and recovery of apical wall motion abnormalities, heparin and warfarin administration and thrombolysis could also induce the detachment of the LVT from the myocardial

wall. Although, there is no consensus on LVT treatments such as heparin, warfarin, thrombolysis, and surgical or catheter-based thrombectomy, it is recommended that in patients with massive, protruding, free-floating, fresh thrombus and a history of acute systemic embolisation, thrombectomy should be considered to avoid further embolisation [4, 5].

**Key words:** left ventricular thrombosis; apical ballooning syndrome; cardiac magnetic resonance, embolism

**Correspondence:** Emre Yalcinkaya, MD, Gulhane Military Medical Faculty, Department of Cardiology, GATA Etlik, TR-06018 Ankara, Turkey, [dremreyalcinkaya\[at\]gmail.com](mailto:dremreyalcinkaya[at]gmail.com)

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