A multiloculated left ventricular thrombus
A Multiloculated Left Ventricular Thrombus

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Abstract

A 50-year-old man presented with worsening heart failure. He had suffered an anterior wall myocardial infarction nine years prior and had severe left ventricular dysfunction. On transthoracic echocardiography a mass was seen attached on akinetic left ventricular apex with multiple internal hypoechoic loculations, suggestive of a left ventricular thrombus.

Keywords: Myocardial infarction, Left ventricular dysfunction, Thrombus, Left ventricular thrombus

A 50-year-old man with coronary artery disease and severe left ventricular (LV) dysfunction presented with acute decompensated heart failure. The patient had experienced an anterior wall myocardial infarction (MI) nine years prior, and the baseline ejection fraction (EF) was 30%. The transthoracic echocardiogram showed an apical thrombus with well-defined borders, distinct from the underlying endocardium (Fig. 1, Video-1). It had independent mobility and internal hypoechoic areas giving it a loculated appearance. There was thinning and dyskinesia of the underlying myocardial segments. An echocardiogram done one month prior to admission had not shown any LV thrombus and there was no history of thromboembolic events in the intervening period.

Supplementary video related to this article can be found at https://doi.org/10.37616/2212-5043.1228

Heart failure is the most common cause of LV thrombus. Presence of a dyskinetic segment and LVEF <40% are important risk factors [1,2]. Most thrombi resolve by undergoing spontaneous lysis, a process which is facilitated by anticoagulation. This could explain the appearance of the thrombus in our case with a smooth outer contour and multiple internal hypoechoic regions corresponding to regions of lysis. Persistent thrombi that do not dissolve or embolize, may get organized and undergo neovascularization. Anticoagulation should be administered for the resolution of the thrombus and the duration of anticoagulation after resolution of thrombus should be individualized [3]. Although the risk of embolization from thrombi may decrease with organization of the thrombus, the underlying LV dysfunction and wall motion abnormality predispose to recurrent thrombus formation.

Author contribution


Disclosures

Nil.
Abbreviation list

LV  Left Ventricle
MI  Myocardial Infarction
EF  Ejection Fraction

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References

