An undulating giant left ventricular apical thrombus after myocardial infarction

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A 54-year-old patient with a history of anterior myocardial infarction one year previously was admitted to the cardiology department. Electrocardiography showed sinus rhythm and persistent ST-segment elevation in the precordial leads

indicating ventricular aneurysm. Transthoracic echocardiography revealed left ventricle apical aneurysm and a giant undulating thrombus (77×63 mm) in it (Fig. 1, video). The left ventricular ejection fraction was calculated as 15%.

Fig. 1 Transthoracic echocardiography apical for chamber view frame showing left ventricular dilatation (LV), apical aneurysm and a giant apical thrombus (T). RV: right ventricle

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Anticoagulation treatment was started immediately and he was monitored closely.

The differential diagnosis of abnormal cardiac masses includes primary or secondary heart tumours, thrombus, infectious structures such as vegetation, abscess or hydatid cyst. Most commonly encountered masses in the left ventricle are thrombus, fibroma and metastatic cancers [1]. Fibroma is well demarcated from the surrounding myocardium by multiple calcifications and as with other neoplasms, does

not associate with akinetic or dyskinetic ventricular segments. The patient had no history of malignancy and there was no sign of infection on admission. Nevertheless, echocardiographic examinations during hospitalisation for acute myocardial infarction and during a clinical visit, five months ago, had not revealed any left ventricular mass. So, the most probable diagnosis was a giant left ventricular thrombus in the large apical aneurysm.

Left ventricular thrombus is usually associated with coronary artery disease and myocardial infarction [2] or any other situations associated with wall-motion abnormalities as cardiomyopathy, myocarditis, and takotsubo cardiomyopathy. Rarely hypercoagulable or inflammatory states may predispose for left ventricular thrombus formation [3, 4]. The major concern for LV thrombus is the potential for thromboembolism causing morbidity and mortality.

There are many case reports comparing left ventricular thrombus dimensions [5], but this is the biggest left

ventricular thrombus reported to literature, to the best of our knowledge.

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