A 27-year-old man was transferred to our hospital because of heart failure. He had been diagnosed with dilated cardiomyopathy 6 months ago. Since initial echocardiography a left ventricular (LV) apical thrombus (size 3 cm) was shown, and the patient was treated with oral anticoagulation therapy. To exclude non-compaction cardiomyopathy of the LV, he was referred to cardiac magnetic resonance (CMR). Cine CMR showed a severely dilated and dysfunctional LV (EDV: 329 mL, EF: 15%) with severe diffuse hypokinesia. The LV showed a normal trabecular pattern, without evidence of non-compaction cardiomyopathy. The LV apical mural thrombus was still present but had considerably decreased in volume (19 × 14 × 5 mm) (Panel C, white arrow). Contrast-enhanced magnetic resonance imaging (MRI) demonstrated myocardial enhancement subepicardially in the LV inferolateral and apicolateral wall and midseptum. The patterns of myocardial enhancement and the normal coronary patency on coronary angiography were suggestive of a previous history of myocarditis. Remarkably, the apical LV thrombus showed a typical hypointense appearance on the early images acquired post-contrast administration (Panel A, black arrow) became strongly hyperintense on the late images acquired more than 10 min after contrast administration (Panels B and D, white arrow).

Contrast-enhanced MRI has shown extremely useful in the diagnosis and characterization of myocardial diseases. An added bonus of this technique is the enhancement of the blood pool, having a bright (or hyperintense) appearance, thus allowing to accurately detect abnormal intraluminal structures, such as cardiac thrombi. Typically, intracardiac thrombi remain hypointense after contrast injection. But, it is known from histopathology that chronic thrombi may be vascularized, although imaging data about vascularized thrombi are sparse. This case nicely shows the progressive, strong enhancement of the apical LV thrombus on consecutive post-contrast imaging. Although most thrombi encountered on contrast-enhanced MRI, in daily routine, remain dark, one should be familiar with these atypical presentations. This may be relevant when there is a need to differentiate thrombi from other masses such as tumours. Although we do not have histological proof that the LV apical mass was a thrombus; an intracavitary mass that shrinks under anticoagulation therapy in a patient with severely dilated cardiomyopathy virtually confirms the diagnosis of a thrombus. An unresolved issue is whether the enhancement occurs due to contrast diffusion from the LV cavity or due to thrombus vascularization.

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**CARDIOVASCULAR FLASHLIGHT**

**Contrast-enhancing left ventricular apical thrombus**

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