

Rare Visualization of Entrapped Left Ventricular Thrombi in Noncompacted Myocardium

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A 64-year-old man with no significant medical history presented to the emergency department with severe acute heart failure. Initial management was based on oxygen therapy, diuretics, and nitroglycerin. Twenty-four hours after admission, the patient developed aphasia and left arm weakness. Brain MRI showed multiple strokes (Figure A) compatible with cardiac emboli. Echocardiography showed dilated cardiomyopathy with severe left ventricular (LV) dysfunction (ejection fraction, 15%). The presence of large trabeculations at the apex and posterolateral wall (Figure B, online-only Data Supplement Videos 1 and 2) more clearly visualized with contrast imaging (online-only Data Supplement Video 3) suggested the diagnosis of LV noncompaction. A zoomed-in view of the LV apex revealed a thrombus entrapped within these trabeculations (Figure C, online-only Data Supplement Video 4). Cardiac MRI confirmed the diagnosis of LV noncompaction and the presence of 2 thrombi (Figure D).

LV noncompaction is considered to be associated with a higher risk of peripheral emboli than of other cardiomyopa-

thies. In addition to LV dysfunction, blood flow is extremely sluggish within the noncompacted myocardium, increasing the risk of intracardiac thrombi. In a series of 34 patients with LV noncompaction followed for 44 months, thromboembolic events occurred in 24%.¹ However, to our knowledge, this case is only the second report² of direct visualization of a thrombus entrapped within noncompacted myocardium.

Disclosures

None.

References

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KEY WORDS: echocardiography ■ embolism ■ stroke ■ thrombus ■ isolated noncompaction of the ventricular myocardium

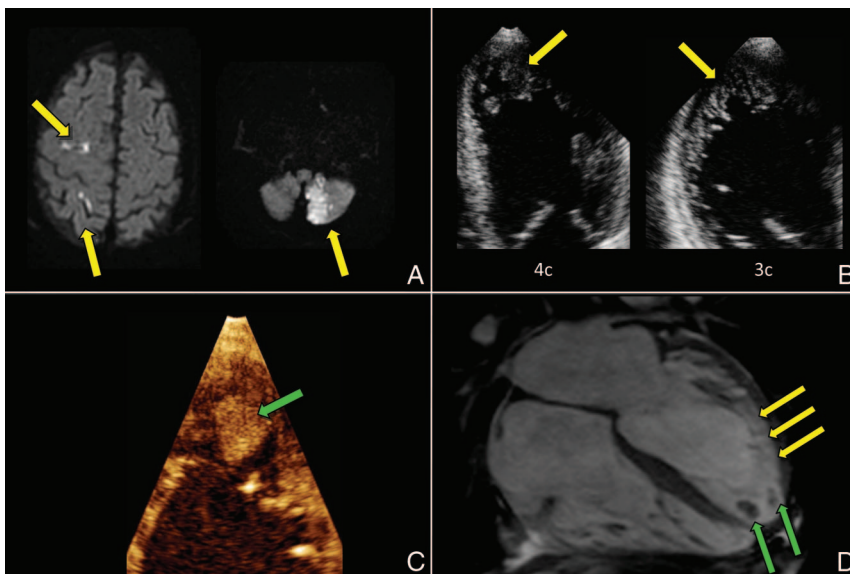


Figure. A, MRI showing multiple cerebral strokes (arrows) in various vascular territories compatible with a cardiac source of embolism. **B,** Echocardiographic 4- and 3-chamber views of the left ventricle (LV) showing large trabeculations of the apex, lateral, and posterolateral walls. **C,** Entrapped thrombus (arrow) of the LV within the noncompacted myocardium. **D,** MRI 4-chamber view of the LV with presence of large trabeculations (yellow arrows) compatible with the diagnosis of LV noncompacted with entrapped thrombi (green arrows).

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SUPPLEMENTAL MATERIAL

Videos

Videos 1 and 2: Echo apical 4- and 3-chamber views showing large trabeculations at the apex and lateral and postero-lateral walls of the LV.

Video 3: Perfusion imaging was performed with contrast injection (Sonovue Bracco Imaging) and a high mechanical index (1.4) so that the trabeculations and sluggish flow are well-visualized.

Video 4: Echo view of the entrapped thrombus within the noncompacted myocardium at the LV apex.