Images in Cardiovascular Medicine

Giant Intramyocardial Dissecting Hematoma:

A Rare Sequela of Subacute Myocardial Infarction

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A 63-year-old woman with a history of diabetes mellitus, hypertension, and smoking was admitted to our intensive care unit with chest pain of 5 days' duration, new-onset cardiogenic shock, and general malaise. Transthoracic echocardiograms revealed extensive akinesia and a left ventricular ejection fraction of 0.25. At the apical-septal region, we saw a pulsatile cavity with a thin endomyocardial border; this cavity expanded upon systole. However, color-flow Doppler images showed no flow within the cavity. There was mild pericardial effusion. These images were interpreted as intramyocardial dissecting hematoma and underlying intramyocardial hematoma (Fig. 1), the probable result of a subacute anterior myocardial infarction.

A computed tomogram confirmed the intramyocardial dissecting hematoma and revealed an apical lesion of the left ventricle (LV), the liquid intensity of which was separated from the LV cavity by a flaccid edge (Fig. 2). We took a conservative approach because the patient's condition was too unstable for cardiac surgery. Death as a consequence of LV failure occurred 2 days after admission.

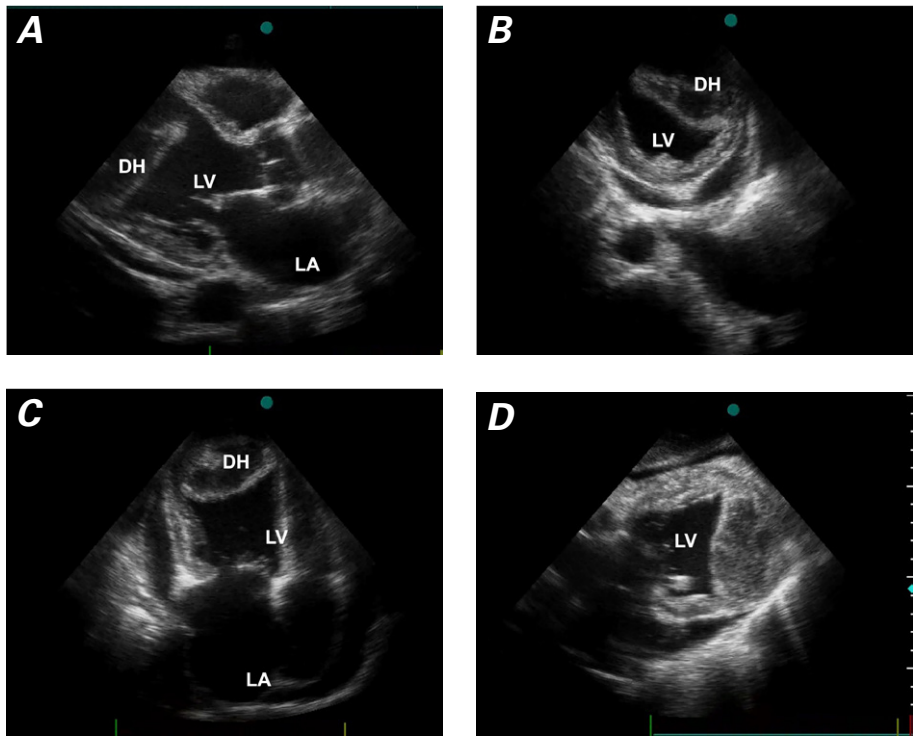

Fig. 1 *Two-dimensional echocardiograms show the intramyocardial dissecting hematoma. Parasternal **A**) long- and **B**) short-axis views show the dissecting, echo-free cavity. **C**) The 4-chamber view shows the hematoma in the left ventricular apex. **D**) The subcostal long-axis view reveals increased echogenicity within the cavity, consistent with partially organized thrombi.*

DH = dissecting hematoma; LA = left atrium; LV = left ventricle

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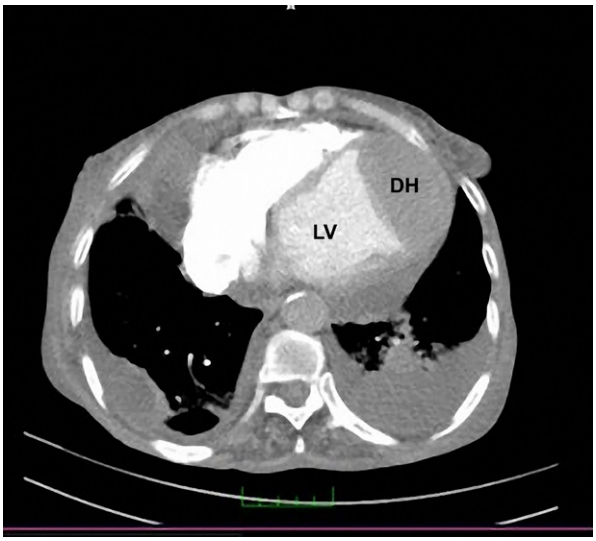

Fig. 2 *Computed tomogram of the chest shows the intramyocardial dissecting hematoma as an apical lesion of the left ventricle with its liquid intensity separated from the left ventricular cavity by a flaccid edge.*

DH = dissecting hematoma; LV = left ventricle

Comment

Intramyocardial dissecting hematoma is an extremely unusual rupture of the LV wall that appears as a neocavitation entirely contained within the myocardial wall.[1] Diagnosis is often difficult and in most cases is established postmortem. Echocardiography is a useful technique for diagnosing free-wall rupture and monitoring its evolution. In addition, computed tomography of the chest and cardiac magnetic resonance imaging can have diagnostic roles in revealing intact myocardium around an intramyocardial cavity.[2,3] In our patient, we first identified intramyocardial hematoma by echocardiography and confirmed that diagnosis by means of computed tomography.

References

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