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IMAGE IN CARDIOVASCULAR MEDICINE

Multimodality imaging of a congenital left ventricular diverticulum

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A 58-year-old woman presented to her primary care physician with acute-onset diffuse abdominal pain. A computed tomography scan of the abdomen did not reveal any abdominal abnormalities. It incidentally showed an outpouching in the inferolateral wall of the left cardiac ventricle toward the base (Fig. 1A). Transthoracic echocardiography revealed an inferolateral basal left ventricular outpouching with calcified rims (Fig. 1B, C). No ischemic workup was pursued given that the patient was asymptomatic. A contrast-enhanced cardiac magnetic resonance imaging was obtained for structural and functional assessment of the outpouching. It showed a broad-based outpouching with dyskinesia involving the basal inferolateral wall without associated filling defects or delayed enhancement (Fig. 1D). The appearance of the imaging was typical of a congenital diverticulum. The patient was then reassured and managed conservatively.

Congenital ventricular diverticula are rare cardiac malformations and their diagnosis usually requires a multimodality approach. A typical congenital diverticulum contains all layers of the ventricular wall (endocardium, myocardium, and pericardium) and contracts in synchrony with the surrounding myocardium whereas a left ventricular aneurysm does not contract. The present case underlines the importance of multimodality imaging in narrowing down the differential diagnosis of cardiac outpouchings and diagnosing congenital cardiac diverticula.

Conflict of interest: None declared

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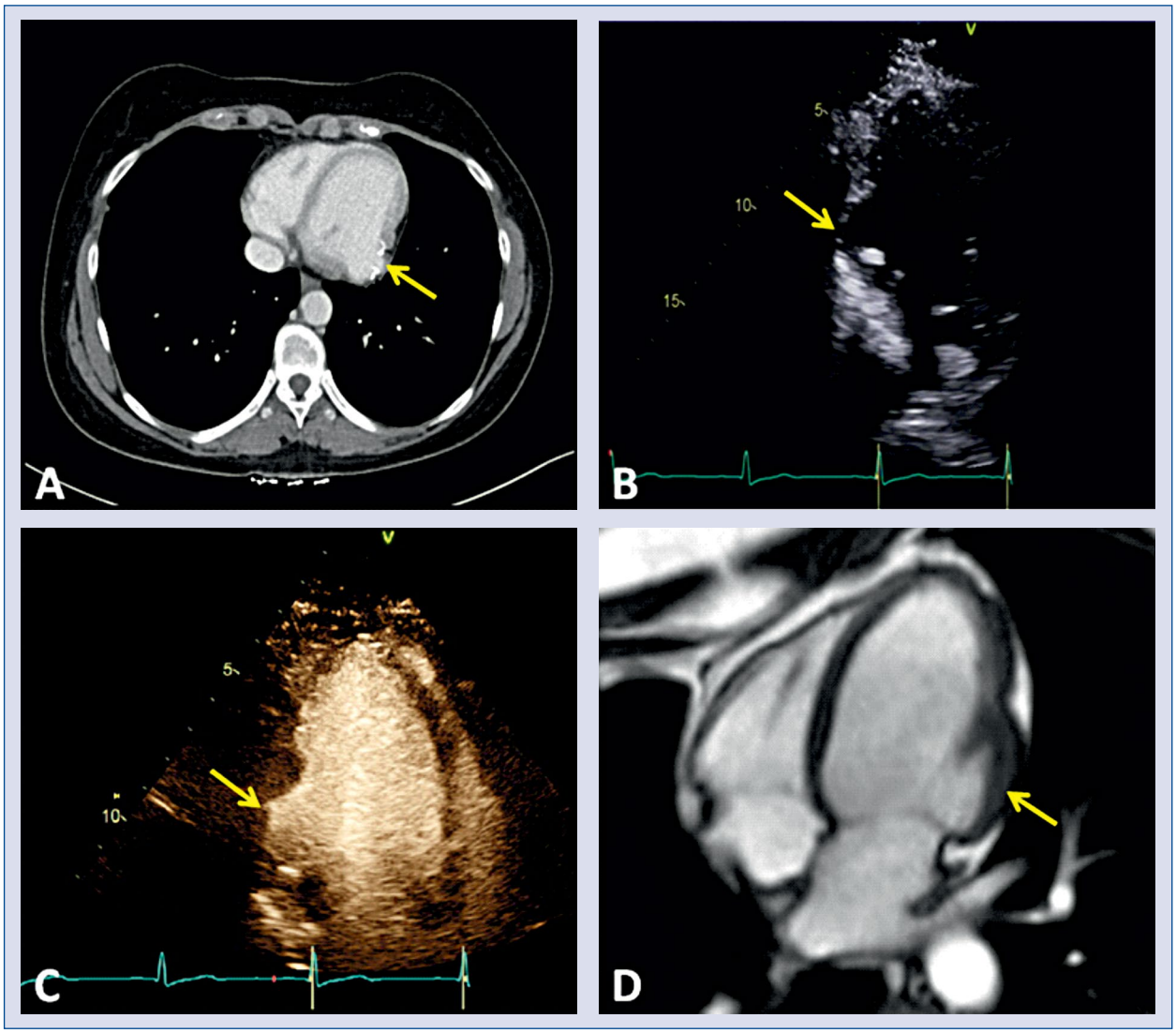

Figure 1. An abdominal computed tomography scan (**A**), transthoracic echocardiography (**B**, **C**), and cardiac magnetic resonance imaging (**D**) showing a left ventricular outpouching typical of a congenital diverticulum.