Cardiovascular magnetic resonance imaging of abortive ventricular septal defect

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A 32-year-old woman with a history of systemic lupus erythematosus and previous pericarditis presented with chest pain.

A transthoracic echocardiogram demonstrated normal biventricular function. An abortive ventricular septal defect (VSD) without evidence for shunting was found. The pericardium was visualized incompletely, as is typical in echocardiography. A diagnosis of pericarditis could not be established or ruled out.

A contrast-enhanced cardiovascular magnetic resonance (CMR) imaging study was performed to assess possible pericarditis and VSD.

CMR imaging confirmed normal left ventricular dimensions and function, as well as significant regional thinning in the midseptal segment (Figure 1). An abortive muscular VSD without shunting was visualized. Contrast-enhanced images showed no CMR criteria for acute inflammation (Figure 2).

The present case illustrates the use of CMR imaging to easily perform an integrated cardiac study to assess cardiac function and shunting, and perform tissue characterization to guide future management.

Figure 1

Figure 2

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