Clinical History
The patient is a 51-year-old man whose cardiovascular history is notable for a large anterior wall myocardial infarction and subsequent coronary artery bypass surgery six years prior to presentation; with subsequent distal left anterior descending (LAD) stent placement one year later for recurrent unstable angina. He developed progressive anginal symptoms over the last few months, and was admitted for coronary angiography. Cardiac catheterization demonstrated distal LAD stent restenosis, which was successfully restented. An abnormal cardiac ultrasound (ECHO) prompted a subsequent MRI evaluation.

Findings
ECHO revealed left ventricular (LV) dysfunction involving the distal interventricular septum and LV apex, with an LV apical aneurysm. Within the aneurysm, there was an echogenic focus suggesting thrombus. MRI demonstrated myocardial thinning with subendocardial to transmural delayed hyperenhancement in the LV apex, indicating scar from remote infarction, and dyskinesis consistent with LV apical aneurysm. Within the aneurysm was an intermediate T1, elevated T2 signal mass, consistent with mural LV thrombus. No enhancement was seen to suggest capillary ingrowth due to thrombus organization.

Discussion
Left ventricular apical aneurysm can be a sequela of myocardial infarction, most commonly from anterior wall myocardial infarction, occurring in up to 40% of these patients. The thrombus is associated with stasis of blood within a thinned, dyskinetic, left ventricular apex. The risk of embolic phenomenon is increased by the presence of thrombus. Thus, the treatment of choice is anticoagulation for 3-6 months with Warfarin. Other etiologies should be considered for thrombi that do not resolve with anticoagulation.

REFERENCES