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# What's in the LV? A Story of SCAD Leading to Anterior Apical Aneurysm With Left Ventricular Thrombus

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## Background

- Spontaneous coronary artery dissection (SCAD) represents 1-4% of all ACS and up to 35% of ACS in women < 50 years of age.
- Underdiagnosed frequently—due to low clinical suspicion, gender/age bias, OCT/IVUS newer technology, and unfamiliarity with SCAD's angiographic variants.

### Risk factors include:

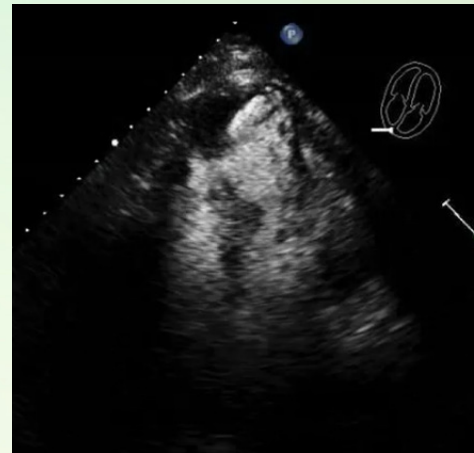
- Fibromuscular dysplasia
- Pregnancy
- Female, age < 50, multiparity
- Emotional/physical stress
- Connective tissue disorder

## Case Presentation

A 39 y/o female with PMHx of migraines, polysubstance abuse, depression, and anxiety presented with ongoing dyspnea and palpitations. EKG: sinus tachycardia with new Q waves in II, aVF, and V3-V6. Troponins negative.

## Imaging Results

- Transthoracic echocardiography (TTE): LAD wall motion abnormality with aneurysm formation and a large apical thrombus. LVEF 45%.
- Coronary angiography: SCAD (type 2) of mid-distal LAD without obstructive CAD.



TTE Apical 4C view of LV with Definity contrast demonstrating large apical thrombus.

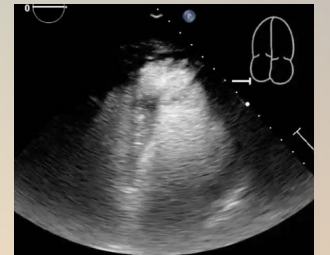


Coronary angiography demonstrating diffuse long narrowing of mid-distal LAD consistent with type 2 dissection

1. Paucity of data still exists on the best treatment of patients with SCAD.
2. Patients without high-risk features are treated with supportive management.
3. Complications similar to those seen in MI due to atherosclerosis have been reported in SCAD – specifically LV thrombus, aneurysms, and ventricular tachycardia.

## Clinical Course

- Treated medically with metoprolol succinate, lisinopril and dual therapy with clopidogrel and warfarin.
- Aspirin was held due to anemia. No evidence of fibromuscular dysplasia on CT imaging.
- Follow up TTE 1 year later → Normalized LVEF, akinesis of apical and septal wall in LAD territory, and resolution of LV thrombus.



## Discussion

- Patients with high-risk features such as left main disease, persistent angina, VT/VF, and/or cardiogenic shock require urgent revascularization. Supportive treatment is indicated in patients with no high-risk features.
- Beta blockers and optimal blood pressure control have been associated with improved prognosis in patients with a history of SCAD.
- Statins are not indicated in treatment of SCAD.

## REFERENCES AND DISCLOSURES

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Disclosures – None