INTRODUCTION
- Spontaneous coronary artery dissection (SCAD) is defined as spontaneous dissection of epicardial coronary artery that is unrelated to atherosclerosis or trauma.
- It has been emerging as a fatal cause of MI, ACS, and sudden cardiac death.
- Pregnancy associated SCAD is the most common cause of MI in pregnant and postpartum patients, however, the pathophysiology is poorly understood.
- Underlying arteriopathy plays a significant role as a precipitating factor for spontaneous arterial tear.

CASE PRESENTATION
- A 41-year-old woman with a history of postpartum cardiomyopathy, myocarditis and recurrent episodes of SCAD presented with severe (10/10) chest pain which radiated to both arms and persisted despite 3 nitroglycerin tablets. Her prior SCAD events had resulted in a total of 7 stents being placed, with the most recent episode being 2 weeks prior and managed by additional drug-eluting stent (DES) placement to the left anterior descending coronary artery (LAD) with extensive balloon angioplasty in the distal LAD.
- Although she had nonspecific EKG changes (Figure 1), considering her complex cardiac history and elevated troponin to 34 (reference range:0.006 to 0.2), she underwent emergent cardiac catheterization.
- She was again found to have SCAD, this time involving her right coronary artery (RCA). She was successfully treated with two overlapping DES and angioplasty of the RV marginal artery (Figure 2).
- During the procedure she developed bradycardia, hypotension and flash pulmonary edema requiring pressor support and BiPAP. TTE revealed an ejection fraction of 40-45% and apical-inferoseptal akinesis. Within 3 days she was weaned off pressors and was saturating well on room air and was discharged on guideline directed therapy and outpatient follow-up.

OUTPATIENT WORKUP
- Extensive testing for autoimmune disorders including ESR, CRP, ANA, dsDNA ab, RF, APLA, HLA B27 and anti-cardiolipin antibodies were negative.
- CT angiography was negative for any aneurysms or fibromuscular dysplasia (FMD).
- Considering her first episode was related to pregnancy, and her menstrual cycles have been irregular, current thought process is that her SCADs could be related to fluctuating hormones (estrogen/progesterone).
- She agreed to go through genetic testing and if positive possible cascade screening.

REFERENCES