Spontaneous Coronary Artery Dissection: A Family Affair
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INTRODUCTION
- Spontaneous Coronary Artery Dissection (SCAD) is a rare condition that can result in acute myocardial infarction and sudden death in young females without prior risk factors.
- Its incidence accounts for 2-4% of all cases of acute coronary syndrome. We present a case series of two sisters diagnosed with SCAD, indicating a probable genetic association which has not been well established in the past.

CASE PRESENTATION
- A 48-year-old female with past medical history of iron deficiency anemia presented to the Emergency Department with sudden onset jaw pain and chest pain with a 10/10 intensity and radiating into her left arm.
- Her family history consists of two episodes of SCAD in her biological sister before the age of 40.
- Her initial EKG showed ST segment depression in V3,V4,V5 and V6. Repeat EKG showed 0.5mm ST elevation in lead III and aVF. Troponins were elevated on presentation.
- She underwent cardiac catheterization, which revealed long diffuse 100% occluded OM2 with ambiguous cap with good distal flow. No coronary intervention was done due to possibility of complete dissection of the vessel.
- 48 hour post cardiac catheterization she remained asymptomatic and was discharged home with Aspirin, Plavix, Metoprolol and Atorvastatin and outpatient cardiology follow-up.

IMAGING
- Figure 1 & 2 both with evidence of 100% occlusion of OM2 with good distal flow noted.

DISCUSSION
- SCAD is defined as a non-iatrogenic intramural hemorrhage leading to separation of the coronary arterial wall and the formation of a false lumen.
- Many risk factors such a female sex, systemic inflammatory diseases, emotional stressors have been reported to cause SCAD.
- Similar to our patient, her sister suffered two episodes of SCAD with identical presentation and with no coronary intervention.

CONCLUSION
- Based on this understanding, we suspect a high likelihood of hereditary component that makes women in particular families with history of SCAD more prone than families without.
- Hence, we believe members of families with SCAD may benefit from formal genetic panel evaluation to better assess the likelihood of disease.

REFERENCES