**Spontaneous Coronary Artery Dissection: A Family Affair**

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**Abstract:**

**Background:** Spontaneous Coronary Artery Dissection (SCAD) is a rare condition that can cause acute myocardial infarction and even sudden cardiac death. It is typically seen in young females without cardiac risk factors. SCAD is characterized by non-traumatic, non-iatrogenic intramural hemorrhage leading to separation of the coronary arterial wall and formation of a false lumen. It accounts for 2-4% of all cases of acute coronary syndrome. We present a patient whose sister also had SCAD supporting a possible genetic component of the disease.

**Methods:** A 48-year-old female with a past medical history of iron deficiency anemia presented with sudden onset of 10/10 intensity chest pain radiating to her left arm and jaw. Her initial troponins were elevated and electrocardiogram (EKG) showed 0.5mm ST elevations in inferior leads with ST segment depressions in anterolateral leads. Cardiac catheterization revealed a long diffuse 100% occluded OM2 with an ambiguous cap and good distal flow consistent with SCAD. No coronary intervention was done given the risk of complete dissection of the vessel. She was admitted to the intensive care unit for observation where she remained chest pain free. Later, she was discharged home on aspirin 81mg, clopidogrel 75mg, metoprolol and atorvastatin with instructions to follow up with cardiology outpatient. Interestingly, her family history includes SCAD in her biological sister who was diagnosed prior to the age of 40. The patient's sister underwent cardiac catheterization on three separate occasions where she was treated conservatively for SCAD without coronary intervention.

**Results:** Although rare, SCAD is an important and potentially fatal cardiovascular disease. Risk factors include female sex, systemic inflammatory diseases, and emotional stressors. Our case supports the idea of a hereditary component of developing SCAD. Our patient and her sister both had similar clinical presentations and cardiac catheterization findings without any risk factors for coronary artery disease.

**Conclusion:** A formal genetic evaluation may be warranted in patients presenting with SCAD to investigate the hereditary component of the disease.