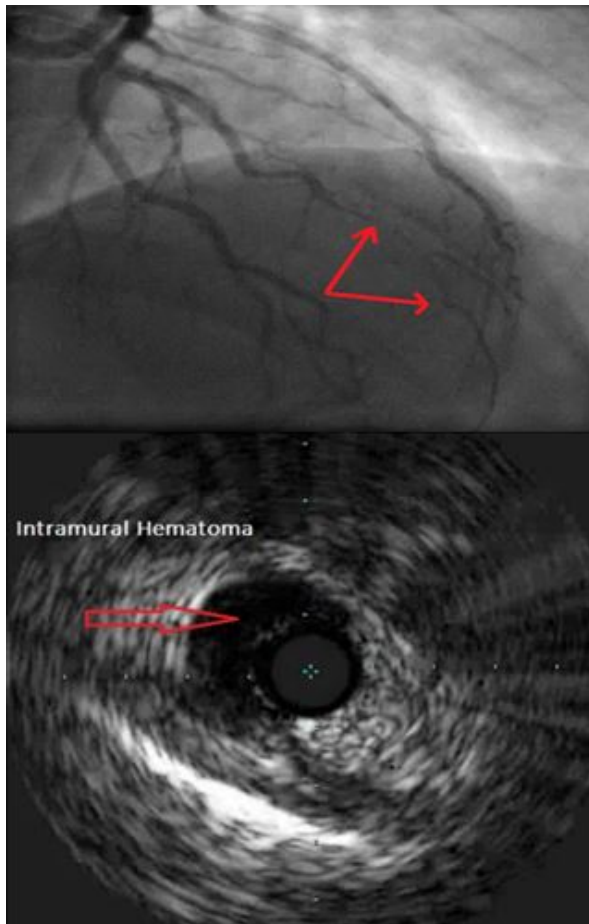


Title: Myocardial Infarction After Heavy Lifting In A Healthy Man: Don't Miss Spontaneous Coronary Artery Dissection!

Authors: Ahmad, A., Baskaran, J., Blodgett, M., Mahfood Haddad, T., Aboeata, A.

Introduction: Spontaneous coronary artery dissection (SCAD) is an uncommon cause of acute coronary syndrome (ACS) especially in men.

Case Summary: 51-year-old male without cardiovascular risk factors presented with chest pain after sexual activity. He was diagnosed with non-ST segment elevation myocardial infarction. He reported lifting weights (more than 50 pounds repeatedly) two days prior to event. Coronary angiogram showed diffuse narrowing in the mid segment of the left anterior descending artery thought to be secondary to vasospasm. Intracoronary nitroglycerin administration showed no improvement. Intravascular ultrasound revealed an intramural hematoma (IMH), diagnostic of SCAD variant 2A with diffuse arterial narrowing bordered by normal segments proximal and distal to the IMH. Due to the location of the dissection and stable clinical condition we opted for conservative management. Patient was discharged on aspirin, clopidogrel and beta blocker. Pan computed tomography angiography (CTA) showed an 8X6 mm aneurysm of the middle cerebral artery and a small ascending aortic aneurysm. There was no evidence of fibromuscular dysplasia (FMD).



Discussion: SCAD is usually associated with an underlying arteriopathy, most commonly FMD with a precipitating stressor (especially intense isometric exercise in men). Familiarity with its coronary angiographic variants is essential in order not to miss diagnosis. Associated extra-coronary vascular abnormalities are common and should be screened for by pan CTA.

Conclusion: Suspect SCAD in patients with ACS without common cardiovascular risk factors especially with history of recent stressor. Intracoronary imaging showing IMH may be helpful in equivocal cases. Conservative management is recommended in most cases.

References:

1: Hayes, S. N., Kim, E. S., Saw, J., Adlam, D. Spontaneous coronary artery dissection: current state of the science: a scientific statement from the American Heart Association. *Circulation*, 2018.

2: Tweet, M. S., Eleid. M. F., Best, P. J. Spontaneous coronary artery dissection: revascularization verses conservative therapy. *Circulation: Cardiovascular Interventions*, 2014.