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**INTRODUCTION**

The spectrum of acute coronary syndrome (ACS) is most frequently interpreted as plaque disease due to critical stenosis and/or rupture however this continuum may also present in the absence atherosclerotic phenomena. We present a case of acute ST-elevation myocardial infarction in a patient with no obstructive coronary disease who was found to have a spontaneous coronary artery dissection SCAD.

**CASE DESCRIPTION**

A 71-year-old female with chronic kidney disease stage G3A presented to the emergency department with 1-hour duration of constant, left sided, substernal chest pain. She had no history of hypertension, hyperlipidemia, diabetes, smoking, or family history of coronary disease. She was given aspirin and nitroglycerin in the ambulance with significant improvement of the chest pain.

12-lead electrocardiogram performed in the ambulance with findings as shown Initial troponin was 0.60 ng/mL. The patient arrived in the cardiac catheterization lab 29 minutes thereafter.

Coronary angiography revealed a tortuous right coronary artery with a small-vessel posterior descending artery which appeared to have spontaneously dissected. Several days later, the patient developed profound hypotension and was found to have a left-to-right ventricular septal defect. She was transferred to a quaternary care center for emergent surgical intervention however unfortunately expired several days later.

SCAD may manifest as an acute myocardial infarction and should be suspected in patients with fewer atherosclerotic cardiovascular risk factors so that emergent evaluation at a center with experience treating SCAD can be pursued. Initial management is not dissimilar to garden variety ACS and should be focused on medical optimization and revascularization, if possible. Keystones for medical intervention are aspirin and beta blockade.

PCI is often not feasible due to risk of insertion into the false lumen and extension / propagation of the dissection.

A high index of suspicion is frequently needed as certain types mimic atherosclerotic disease on angiography. IV US can be considered in which Type 3 SCAD is suspected.

**References and Contact**


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