

# A DANGEROUS DUO? : FIBROMUSCULAR DYSPLASIA AND POSTPARTUM SPONTANEOUS CORONARY ARTERY DISSECTION

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## BACKGROUND

Fibromuscular dysplasia (FMD) is a rare systemic vascular disease with a predilection for young women often remaining silent until the sequelae of the disease becomes apparent due to transient ischemic attack, stroke, spontaneous coronary artery dissection (SCAD), or aneurysm rupture. However, emotional stressors and hormonal changes seen in the peripartum period have also been associated with SCAD.

We report a case of a young, postpartum female with no significant past medical history presenting with cardiac chest pain found to have acute myocardial infarction due to SCAD and newly diagnosed FMD.

## CASE PRESENTATION

A 29-year-old female with no significant past medical history, presented 12 days after an uncomplicated vaginal delivery, with one day of acute onset non-radiating substernal chest pain with associated nausea and diaphoresis.

Vital signs were stable and physical examination was non-contributory.

Initial lab investigations revealed troponin I <0.03ng/mL (<0.03ng/mL) with repeat 6 hours later measuring 41.58 ng/mL with creatine kinase (CK) 377 U/L (29-168 U/L) and CK-MB 11.2 (0.0-3.4 ng/mL).

Electrocardiogram was notable for ST elevation in leads II, III, and reciprocal ST depression in V1 and V2. Coronary angiography revealed SCAD of the obtuse marginal with TIMI 3 flow.

Echocardiogram displayed an ejection fraction of 58%, mild segmental left ventricular dysfunction and inferior wall hypokinesia.

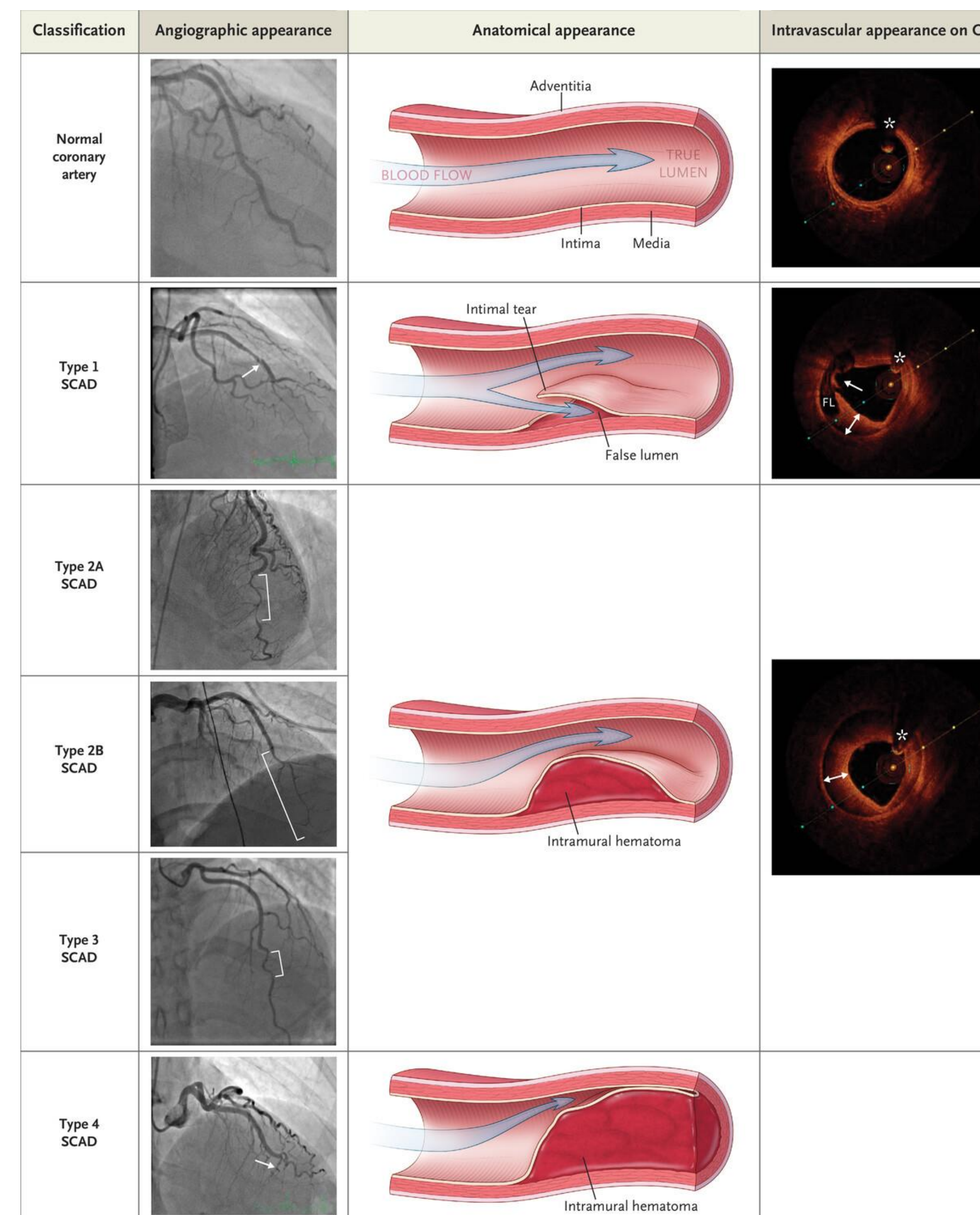


FIG.1 SHOWING ANGIOGRAPHIC, ANATOMICAL & INTRAVASCULAR FINDING OF SCAD

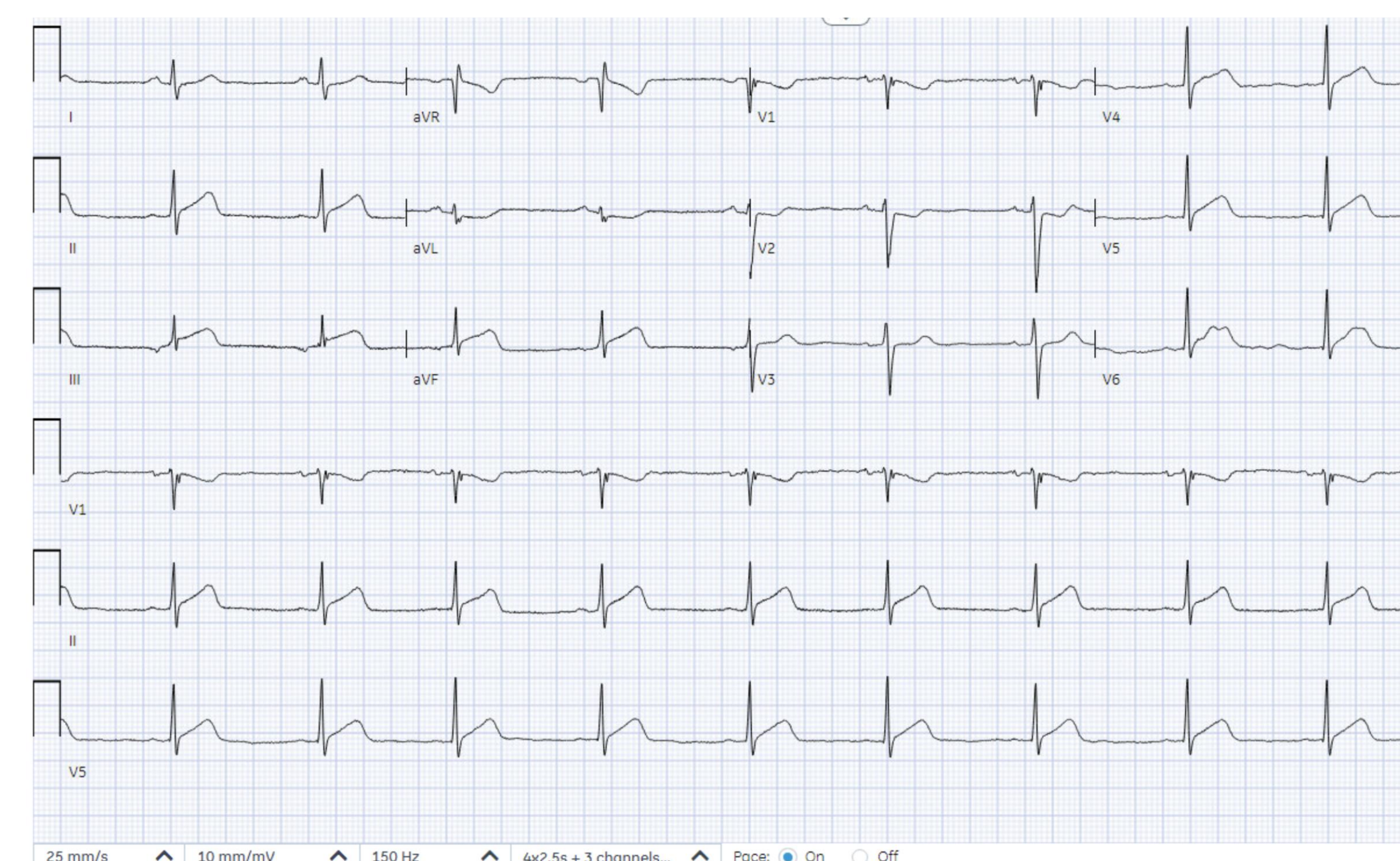


FIG. 2 SHOWING ADMISSION EKG FROM CASE PRESENTED

## DECISION MAKING

The patient was managed conservatively with beta blocker therapy, dual antiplatelet therapy (DAPT), and statin.

Autoimmune and connective tissue disease evaluation was negative.

Computed tomography angiogram of the neck, abdomen and pelvis with contrast demonstrated vessel wall irregularity of the V2 and V3 segments of the left vertebral artery, with no hemodynamically significant stenosis consistent with FMD.

The patient was referred to an FMD program/clinic for continued management.

## CONCLUSION

This case underscores the importance of having a high index of suspicion for SCAD in young female patients with low risk for atherosclerotic disease but also taking it a step further and looking for undiagnosed FMD as SCAD may be the initial clinical manifestation.

## REFERENCES

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