CARDIOVASCULAR FLASHLIGHT

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Spontaneous dissections involving multiple coronary arteries and a vertebral artery over 7 years

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In 2011, a 38-year-old woman developed chest pain 2 weeks after delivery of her first child via caesarean section. Coronary angiography showed spontaneous coronary artery dissection (SCAD) involving proximal and mid-left anterior descending (LAD) and distal right coronary artery (RCA) with thrombolysis in myocardial infarction flow grade of 2 and 3, respectively (*Panel A*). Angiographic projections showing SCAD

in proximal and mid LAD and distal RCA are marked by arrows and square brackets. She underwent bypass grafting with left internal mammary artery (LIMA) to LAD. In 2017, she presented with an episode of transient non-exertional syncope. Computed tomography angiography (CTA) of neck with three-dimensional volume rendering showed small distal right vertebral artery dissection (*Panel B*) that was managed conservatively. In 2018, after delivering her second child via caesarean section, she presented to our hospital with chest pain and a brief episode of ventricular fibrillation requiring defibrillation which restored sinus rhythm. Angiography revealed SCAD involving mid-circumflex (LCX) and first obtuse marginal (OM1) branches (*Panel C*). First obtuse marginal was relatively small, and as patient's symptoms had resolved with no further haemodynamic or rhythm disturbance, we elected to treat her conservatively. The LAD and RCA had healed completely with no residual stenoses (*Panel C*) and LIMA-LAD graft was patent. Transthoracic echocardiogram showed left ventricular ejection fraction of 25%. Work-up for fibromuscular dysplasia (CTA of chest, abdomen, and pelvis), connective tissue disease, and vasculitides was unremarkable. An implantable cardioverter-defibrillator was placed for secondary prevention. She was referred for cardiac rehabilitation and counselled against future pregnancies and use of oral contraceptives. She was discharged on dual antiplatelet therapy and guideline-directed heart failure medications.

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