

Coronary artery dissection in the postpartum period

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DESCRIPTION

We report the case of a 32-year-old woman with no cardiovascular history, who presented 5 days post normal delivery to hospital with sudden onset, crushing chest pain radiating to her left arm and jaw. She had associated shortness of breath and sweating. Vital observations and examination were unremarkable. A 12-lead ECG demonstrated ST depression in leads I, avL and V3–V6. Initial troponin-I was 0.05 µg/L (ref <0.03 µg/L). Repeat 12 h troponin-I was >50 µg/L. Echocardiogram showed a left ventricular ejection fraction of 52% and akinesia of the inferolateral, anterolateral, inferoseptal and inferior segments. Coronary artery angiography was performed which showed a dramatic coronary artery dissection extending from the left main stem to left circumflex (figure 1) and left anterior descending arteries (figure 2), with good distal blood flow. The case was discussed in a multidisciplinary team meeting with cardiothoracic surgeons and cardiologists present. The decision was made for medical management and follow-up echocardiogram after 4 weeks, as intervention would be very high risk given her complex anatomy. She was discharged with a β-blocker, as the consensus was that this would help protect against further complications such as arrhythmias, heart failure and sudden death.

Spontaneous coronary artery dissection (SCAD) is a rare cause of acute coronary syndrome. It is associated with pregnancy and has a reported incidence between 1 in 20 000 and 30 000 deliveries.¹ There is a paucity of literature describing the pathogenesis of peripartum SCAD, however it is suggested that hormonal and haemodynamic

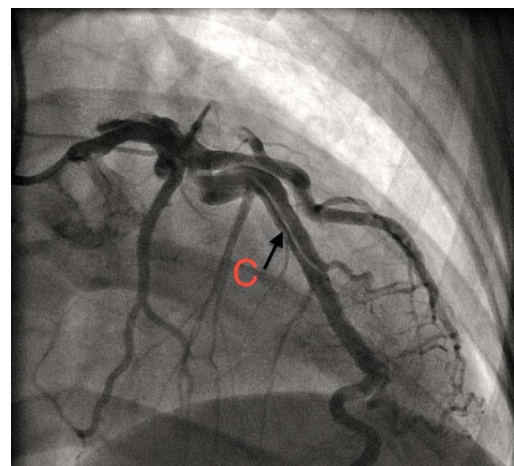


Figure 2 Right anterior oblique caudal view of the heart showing C left anterior dissection flap.

changes in this period weaken and predispose coronary arteries to dissection.²

Learning points

- ▶ Spontaneous coronary artery dissection (SCAD) is a rare condition that should be suspected in peripartum women presenting with chest pain and has an associated mortality of up to 50%.³
- ▶ Urgent coronary angiography should be performed in order to diagnose SCAD.
- ▶ No guidelines exist regarding the management of SCAD, however treatment options are decided on an individual basis and include medical treatment, primary coronary intervention and coronary artery bypass graft surgery.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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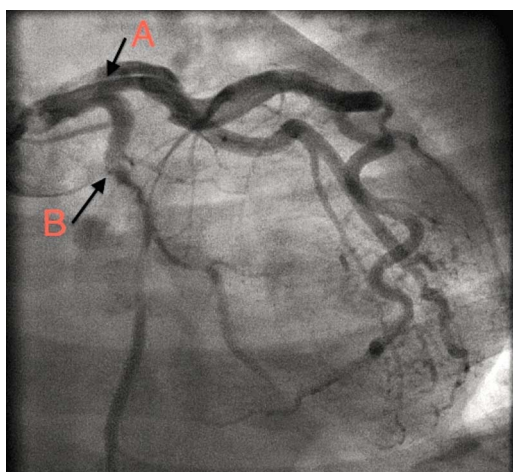


Figure 1 Anteroposterior caudal view of the heart showing. A left main stem dissection flap and B left circumflex artery dissection.



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