

Anesthetic Management of Spontaneous Coronary Artery Dissection in an Anticoagulated Parturient

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BACKGROUND:

- Acute coronary syndrome rarely presents in pregnant patients
- Spontaneous Coronary Artery Dissection (SCAD) is an important DDx for peri-partum chest pain
- Pathology¹
 - Non-atherosclerotic, non-traumatic dissection
 - Influenced by gender, hormonal fluctuations, underlying arteriopathies
- Most postpartum ACS caused by SCAD (43%)²
- Only 2-8% of SCAD cases present during pregnancy²

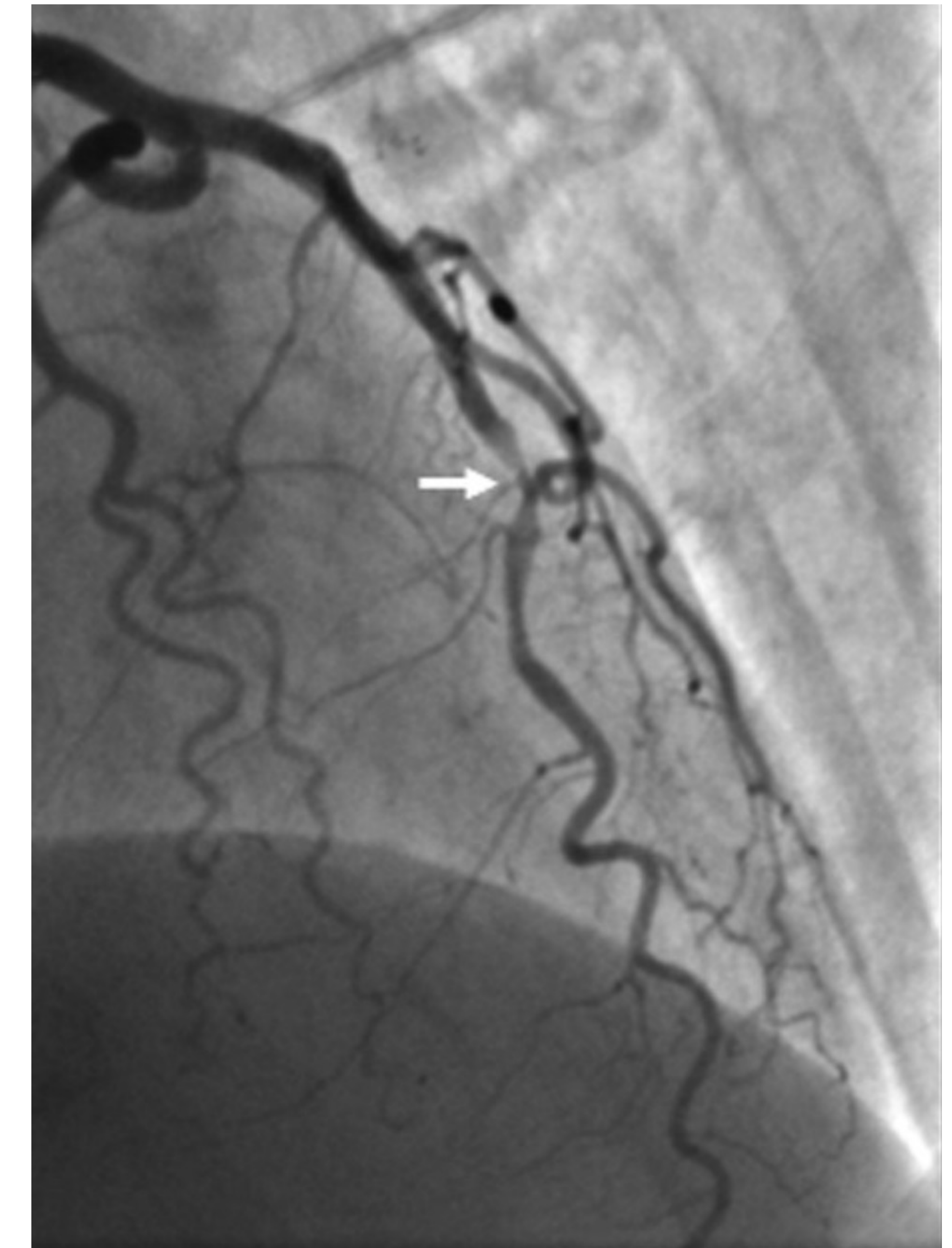


Figure 1. Example of SCAD diagnosed by LHC

1. Hayes, S. N. *et al.* Spontaneous coronary artery dissection. *Journal of the American College of Cardiology* **76**, 961–984 (2020).

2. Chen, C. *et al.* Pregnancy-Associated Spontaneous Coronary Artery Dissection: Clinical Characteristics, Outcomes, and Risk During Subsequent Pregnancy. *Journal of Invasive Cardiology*, 33(6):E457-E466 (2021).

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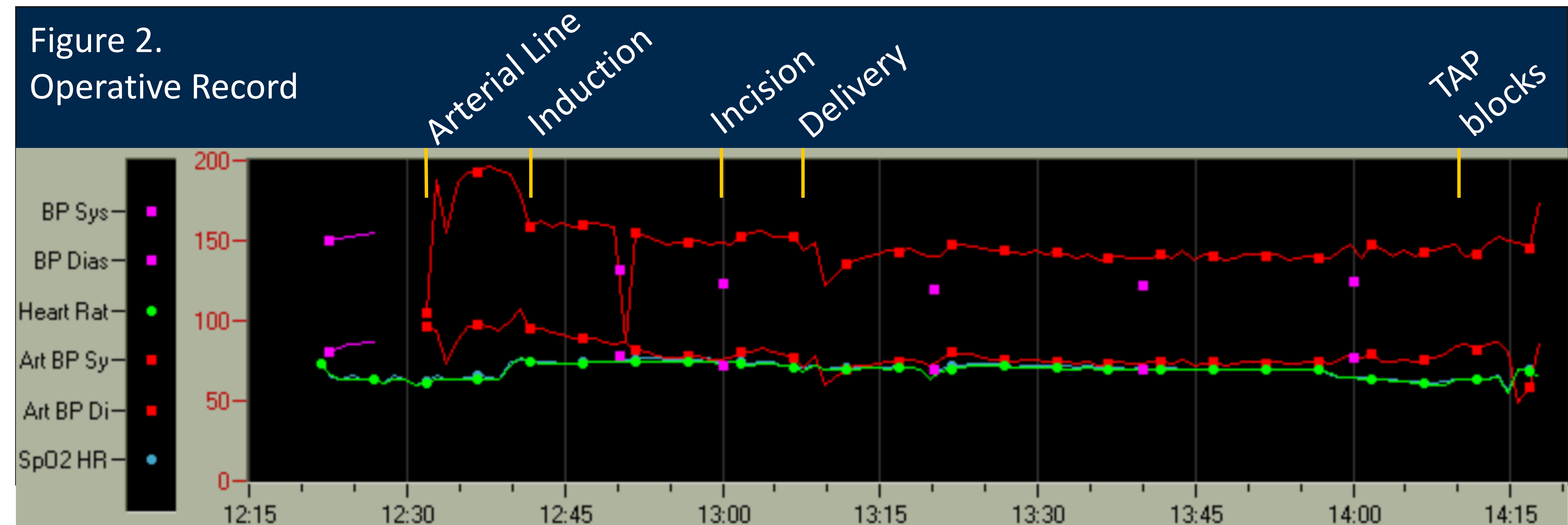
PATIENT:

- 32 y.o. G1P0 at 30w1d with Pre-Eclampsia presents to OSH with central chest pain
- TTE, EKG, and Troponin changes concerning for ACS
- Received Lovenox and clopidogrel during workup
- LHC revealed 50% stenosis of LAD → transferred to Michigan Medicine
- Difficult to control severe range BPs despite treatment -> Urgent Cesarean delivery under GA

CASE:

- Pre-induction arterial line
- Slow induction with remifentanyl, propofol, rocuronium, esmolol
- Oxytocin infusion following delivery
- IV morphine and TAP blocks for post-op analgesia

Figure 2.
Operative Record



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DISCUSSION:

Perioperative Management of SCAD

- Multidisciplinary management of patients with pregnancy complicated by SCAD
 - MFM, Cardiology, CT surgery
 - Tertiary care center
- Medical management recommended in absence of ongoing MI or instability
- Interventions can include PCI vs. CABG

Delivery
indicated?



Anesthetic Management of SCAD

- Vaginal delivery with neuraxial analgesia preferred, however:
- This case demonstrates safe use of general anesthesia for patients with ACS when neuraxial procedures contraindicated
- Slow, controlled induction recommended when risk of hemodynamic instability > risk of aspiration