

ECMO for Resuscitation of a Patient with an Amniotic Fluid Embolism

University of California, San Francisco Department of Anesthesiology & Perioperative Care
Ani Chilingirian MD, Jennifer Woodbury MD MBA, Peter Yeh MD

◉ Background

- Amniotic fluid embolism (AFE) is a rare but catastrophic obstetric emergency with mortality rates up to 60%¹
- Sudden cardiopulmonary collapse, disseminated intravascular coagulation, and end-organ failure are commonly associated morbidities²

◉ Case

- 37-year-old G1P0 with cHTN and T1DM presented for IOL at 34w for SIPE with SF
- Required emergency c-section under neuraxial anesthesia for fetal bradycardia
- Uncomplicated procedure with QBL of 600mL

1. Haddad et al. *Global Cardiology Science & Practice*. 2024;6 (2024): e202451.

2. Andonotopo et al. *Journal of Perinatal Medicine*. 0 (2025).

Code

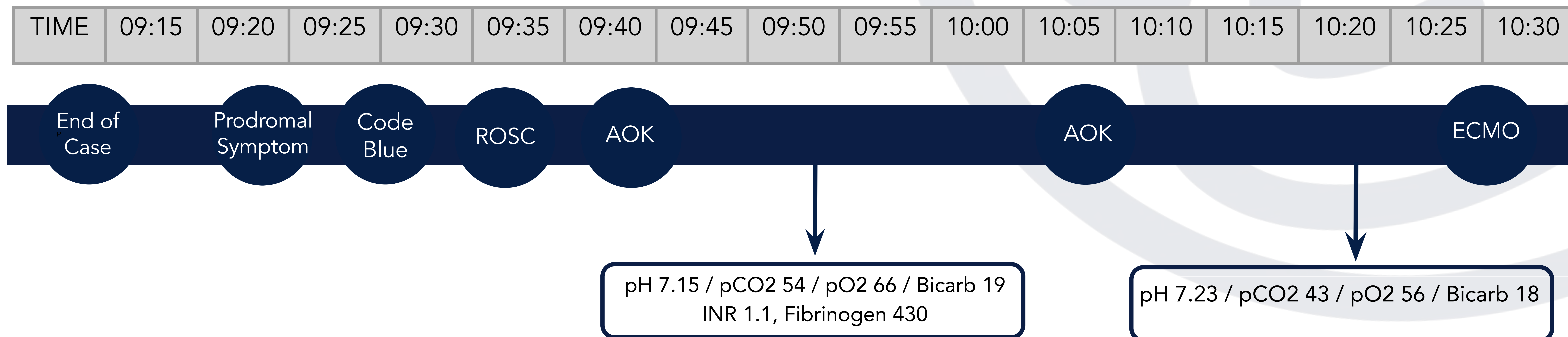
- Patient acutely anxious
- Pulseless VTach → code called
- Shock x1, Epi x1, ROSC ~ 5min
- AOK (atropine, ondansetron, ketorolac) x2

ECMO

- High pressor requirement
- Hypoxemic on 100% FiO2 and PEEP 16
- POCUS with global hypokinesia
- Decision made to cannulate for VA-ECMO

Postop

- Decannulated POD2
- Extubated POD3
- Discharged POD9 in stable condition without neurologic deficits



Discussion

- Prompt ECMO initiation is critical
 - 50% death occurs in the first hour, 25-50% in the next 4-5 hours
 - High rate of serious neurologic and end-organ complications in survivors¹
- This case demonstrates the favorable outcome in a patient with AFE who was resuscitated with VA-ECMO

Case Highlights

1. AFE requires immediate recognition and a multidisciplinary response for best outcomes
2. Prompt ECMO initiation may reduce mortality, neurologic, and end-organ complications²

1. Haddad et al. *Global Cardiology Science & Practice*. 2024;6 (2024): e202451.

2. Aissi James et al. *Critical Care*. 26.1 (2022): 96.