

Interrogating Amniotic fluid embolism: a case series examining the pathophysiological dilemma and management spectrum – anaphylaxis or obstruction?

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Amniotic fluid embolism

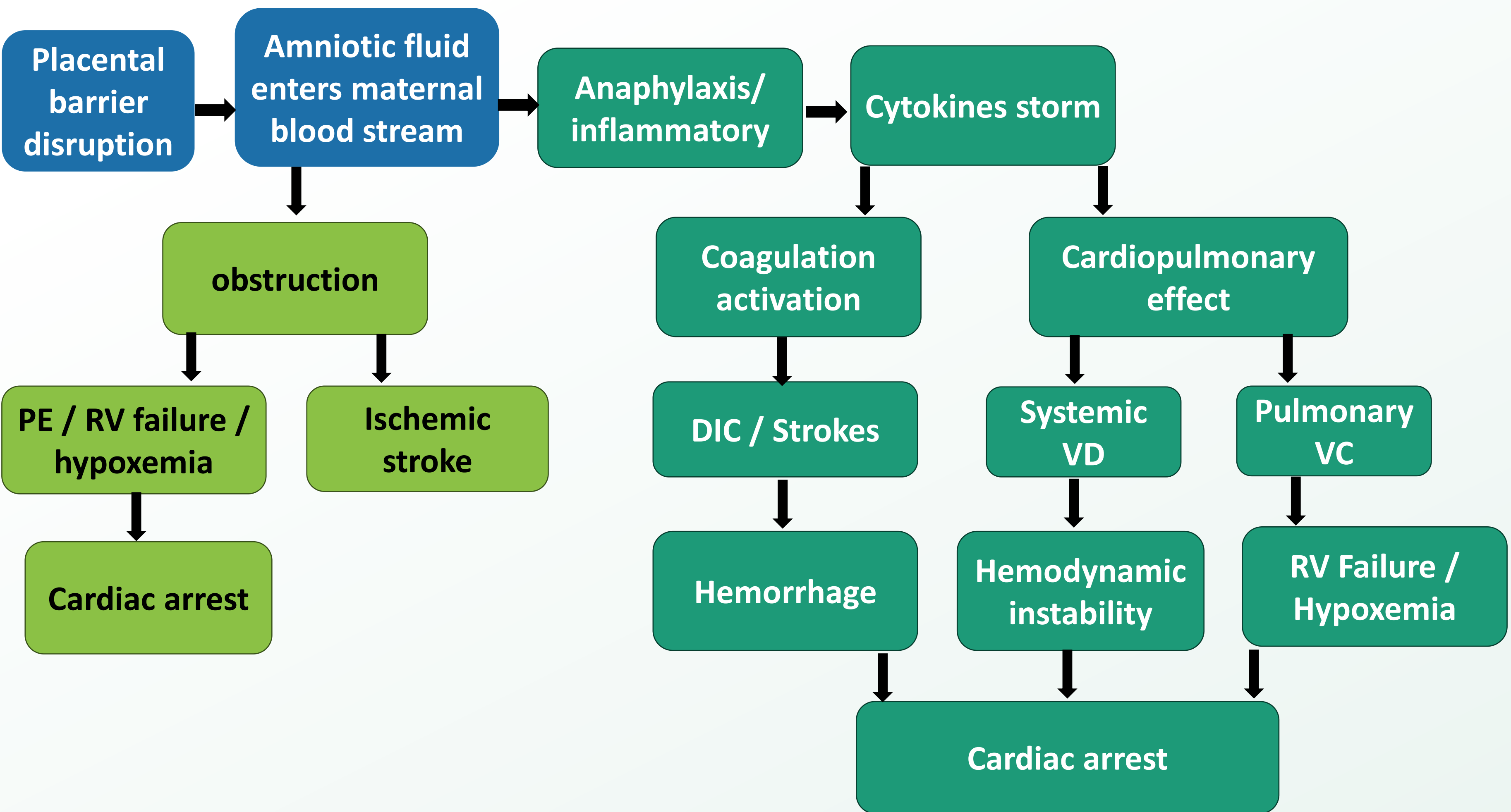
Incidence	3 cases every 100,000 deliveries			
Mortality	Up to 90%			
Diagnosis	Clinical diagnosis			
	Triad of Hypoxemia, Hemodynamic instability and DIC			
Risk Factors:				
• Older maternal age.		• Cesarean section.	• Eclampsia.	• Fetal distress.
• Multiparity.		• Induction of labor.	• Multiple pregnancy.	• Fetal death.
• Abdominal trauma.		• Placenta previa.		

Case series presentation:

	Case 1	Case 2
Profile	A 40-year-old, 82 kg woman	38-year-old, 78 kg
Medical history	Thalassemia major with hx of multiple blood transfusion	No past hx of chronic illness
Obstetric history	2 CS	1 NVD
Pregnancy	Uneventful	
Mode of delivery	Elective CS at 38 weeks	Emergent CS at 40 weeks due to fetal distress
anesthesia	Single shot spinal anesthesia	
Event	Sudden hypoxemia/ hemodynamic instability/ cardiac arrest / DIC	
Timing	During extraction of the placenta	
ROSC	After 16 minutes	after 5 minutes

	Case 1	Case 2
ECHO	No significant abnormality	Right ventricular dilatation improved over next 48 hours <i>(figure 1)</i>
Coagulopathy	• Low fibrinogen/ prolonged APTT & PT/ low platelets/ TEG • Blood product including PRBCs, FFP, Platelets, Fibrinogen were transfused	
Duration of MV	24 hours	6 hours
Post extubation	GCS : 12/15 MRI: multiple scattered infarctions <i>(figure 2)</i>	GCS 15/15
LOS in ICU	7 days	3 days
Discharge	GCS 15/15 , Ambulating , Normal lab profile	

Pathophysiology



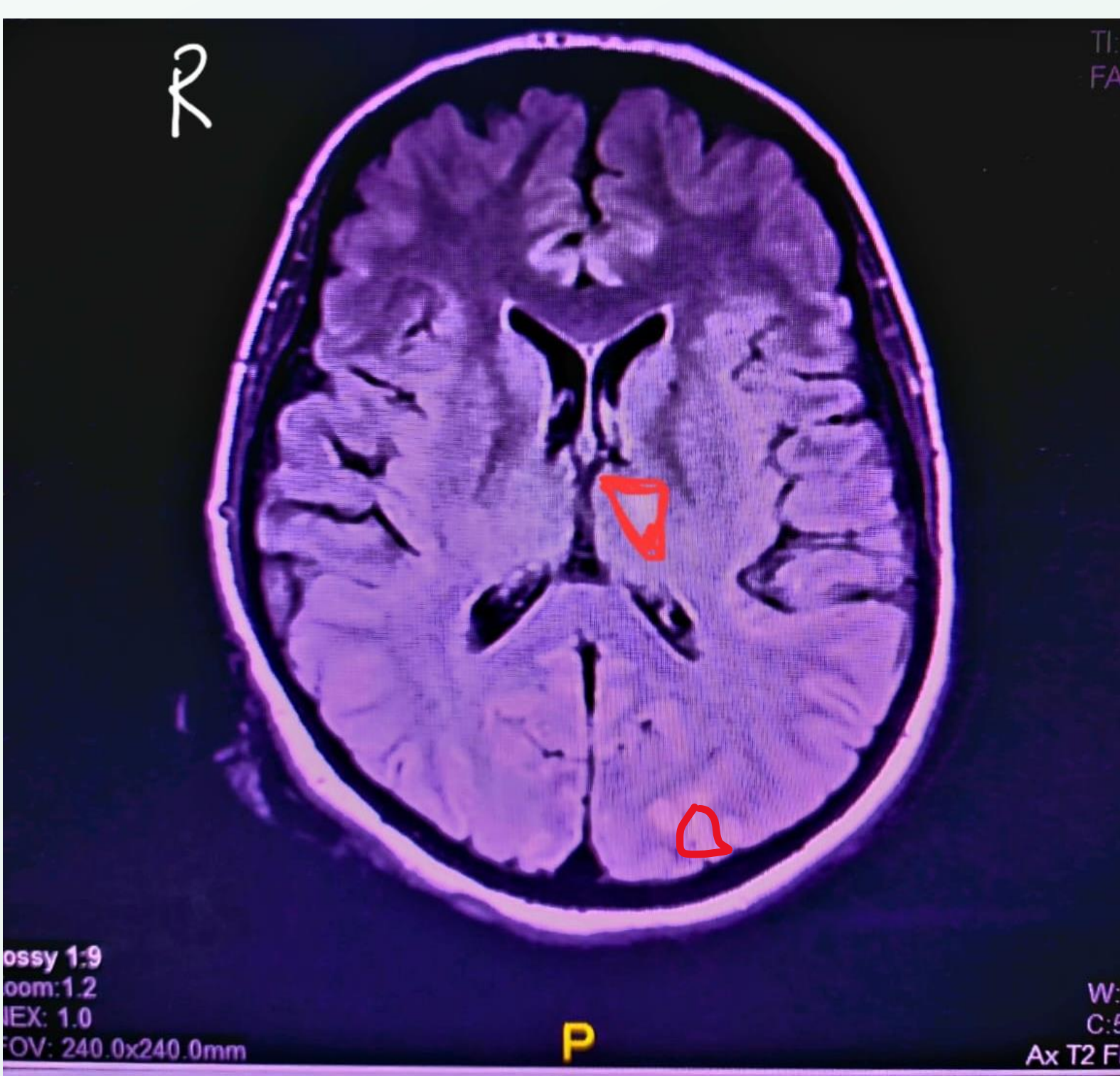
Management spectrum

High suspicion	Early aggressive resuscitation	Multidisciplinary approach
• unexplained DIC with sudden hemodynamic instability • Timing: placental delivery	• Vasopressors / Epinephrine • High quality CPR • Reversal of coagulopathy	• Anesthetist • Intensivist • Obstetrician • Hematologist • Neurologist • Cardiologist

Figures



(figure 1)



(figure 2)

References

- Bernstein SN, Cudemus-Deseda GA, Ortiz VE, Goodman A, Jassar AS. Case 33-2019: A 35-Year-Old Woman with Cardiopulmonary Arrest during Cesarean Section. N Engl J Med. 2019 Oct 24;381(17).
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