

Anesthetic Management of Eclampsia and Subarachnoid Hemorrhage for Emergent Cesarean Delivery

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Patient Presentation:

- Patient: 21-year-old G1P0 at 25w 4d gestation
- Presentation: New-onset generalized tonic-clonic seizures and severe headache as a transfer from outside hospital
- Vitals: BP 160s/90s, elevated LFTs (AST 120)
- BMI: 41.33 kg/m²

Diagnosis (MRI Head):

- Eclampsia
- Moderate posterior reversible encephalopathy syndrome (PRES)
- Small-volume SAH (secondary to PRES according to neurosurgery)
- Plan: Emergent Classical Cesarean Delivery

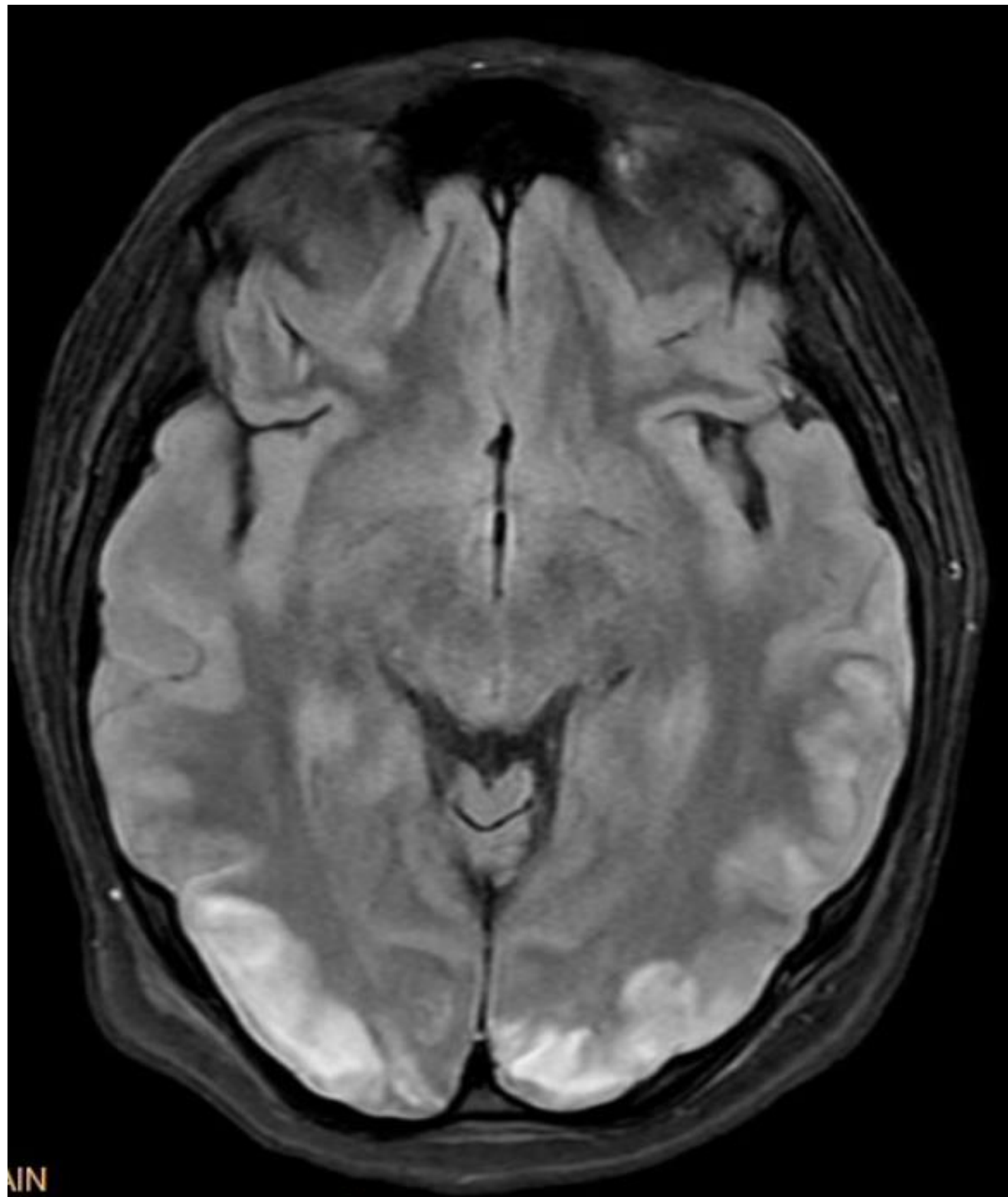


Fig 1. MRI of head showing moderate PRES/Eclamptic Encephalopathy. Small volume subarachnoid hemorrhage within the left greater than right frontal lobes, felt to be secondary to the underlying PRES.

Key Management Challenges

The core conflict: Balancing blood pressure to:

1. Prevent re-seizure/ re-bleed (control hypertension), systolic blood pressure <140
2. Maintain cerebral perfusion (avoid hypotension)
3. Avoid spikes in intracranial pressure

High-Risk population:

1. Maternal eclampsia mortality: 5.6% - 14%¹
2. Pregnancy-related subarachnoid hemorrhage mortality: 10.3%²

Anesthetic Management

Pre-Op:

- Neuraxial with epidural attempt
- Converted to general anesthesia

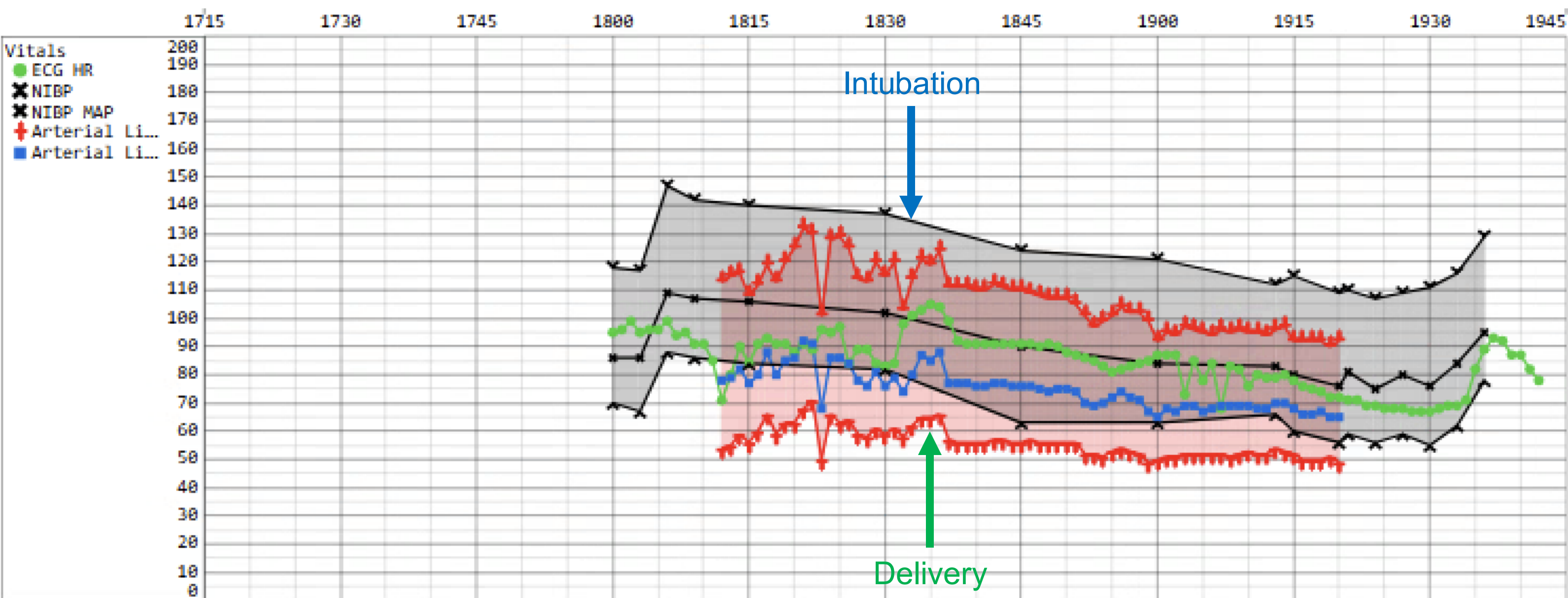


Fig 2. Graph of vital signs throughout surgery

Induction and Maintenance:

- RSI: Propofol, Succinylcholine
- Aspiration Prophylaxis: Famotidine
- Hemodynamics: Stable throughout (no pressors required)

Outcomes and Discussion:

Maternal Outcome:

- Successful extubation in OR
- Uncomplicated discharge home on POD 4

Neonatal Outcome:

- Delivery: 2 mins from incision
- APGARs: 1 (at 1min) to 8 (at 10 min)
- Admitted to NICU

Key Learning:

High-risk OB cases with concurrent eclampsia and SAH require a personalized approach. While neuraxial is preferred to blunt sympathetic surge, readiness to convert to GA with strict hemodynamic control is essential.

References

1. Boushra, M., et al., *High risk and low prevalence diseases: Eclampsia*. The American journal of emergency medicine, 2022. **58**: p. 223-228.
2. Bt, B., *Peripartum subarachnoid hemorrhage: Nationwide data and institutional experience*. Anesthesiology, 2012. **116**: p. 324-333.