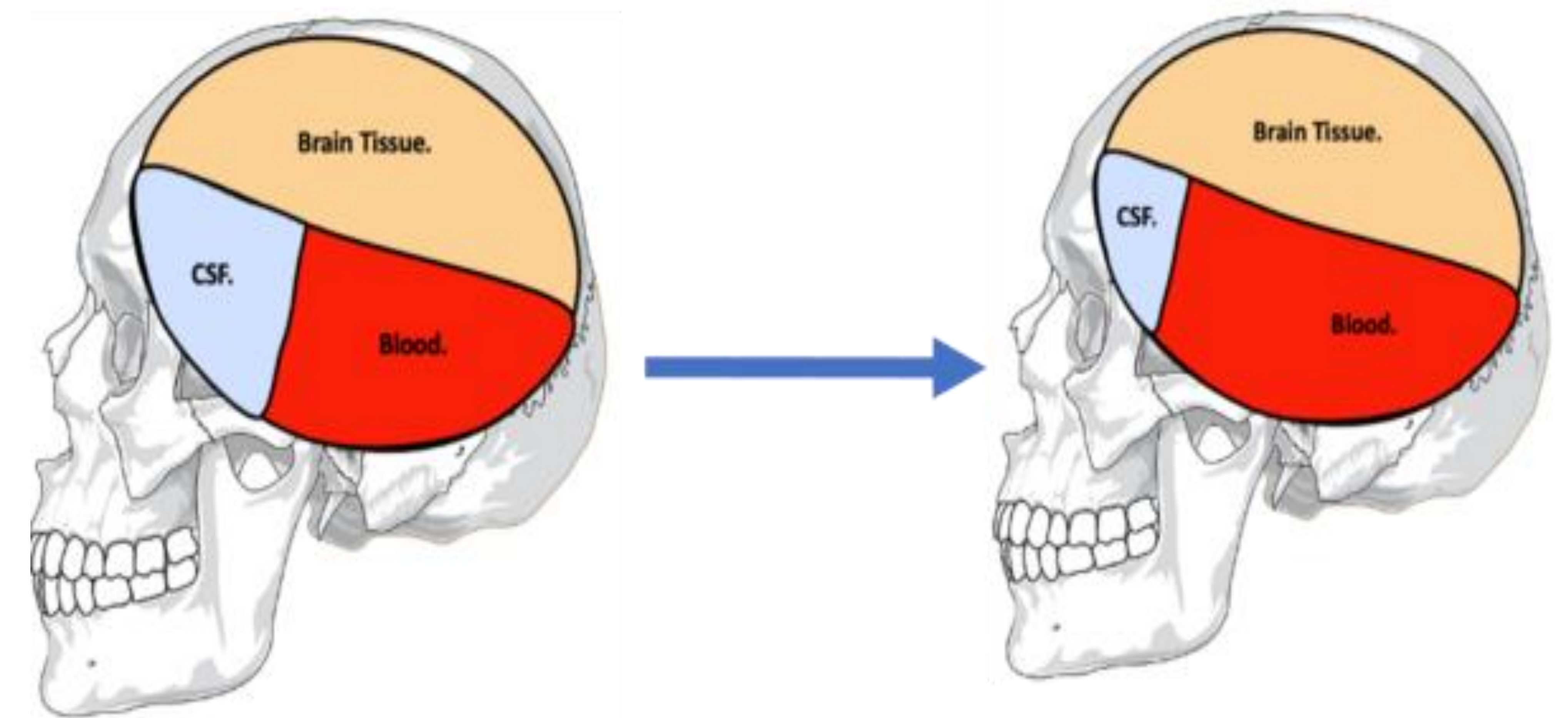


# More Than Just Air: A Case of Pneumocephalus, PDPH, & CVT

Niketu Patel, MD; Liana Dagdavaryan, DO; Jennifer Gage, MD; Borzoo Farhang, DO

## INTRODUCTION

- Pneumocephalus - air in the subarachnoid space usually from inadvertent dural puncture, w sudden onset & variably positional H/A that self resolves
- Post Dural Puncture Headache (PDPH) - low pressure or CSF leak → slow onset positional H/A
- PDPH can → subdural hematoma and central vein thrombosis from intracranial venous stasis
- Monroe Kellie doctrine – skull is fixed space, body compensates accordingly



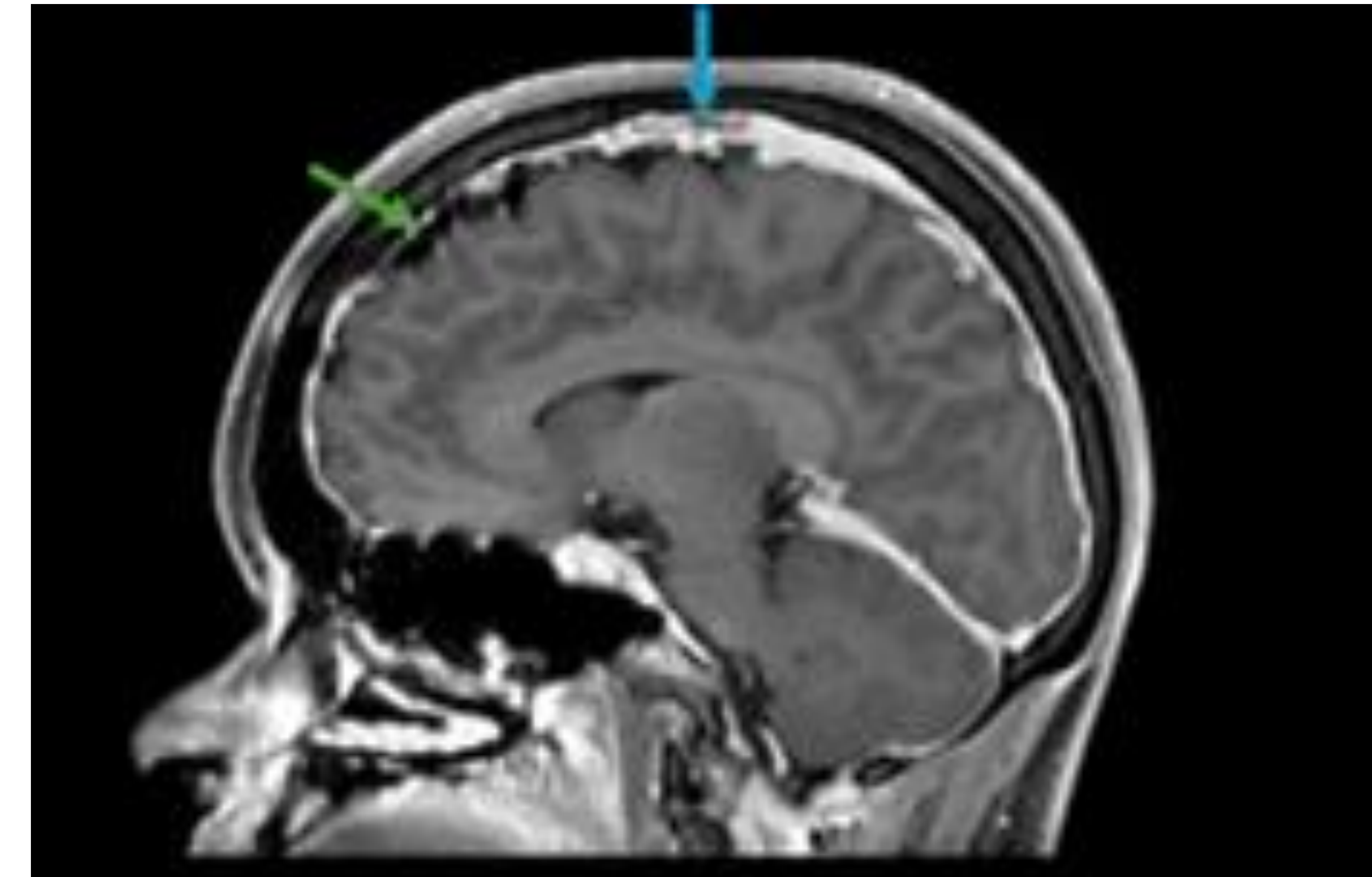
<https://geekymedics.com/traumatic-head-injury-acute-management-abcde/>

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## CASE PRESENTATION

- 27 y.o. G2P2, SVD, difficult epidural, LORA OSH
- PPD1: H/A during epid; CT: pneumocephalus
- PPD2 AM: Improved w analg/O2; ↓ on CT, D/C'd
- PPD2 PM: RUE weak w positional HA, Admit
- Acute Pain consulted, deferred blood patch
- MRI/CT - pneumocephalus, IC hypotension, CVT, epidural fluid collections
- Rx enoxaparin initiatedPPD4: Still impaired by positional headache



- Multidisciplinary conference/intervention
- Enoxaparin transitioned to heparin drip, held x6H
- EBP: sx resolved
- PPD5: Discharged on therapeutic enoxaparin

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## TEACHING POINTS

- Evidence of pneumocephalus should not preclude further diagnosis or treatment options
- Acute symptomatic changes call for further workup
- Central Venous Thrombosis developed likely from persistent CSF leak causing venous stasis in setting of hypercoagulability associated with peripartum period
- Consider multidisciplinary coordination to pause anticoagulation and safely perform an EBP in accordance with ASRA guidelines.

### References

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2. Uppal V, Russell R, Sondekoppam RV, et al. Evidence-based clinical practice guidelines on postdural puncture headache: a consensus report from a multisociety international working group. Reg Anesth Pain Med. 2024;49(7):471-501.