

# Not all ‘thunderclap’ headaches are created equal: a case report.

Suman Biswas MD<sup>1</sup>, Richard L. Alweis MD<sup>2</sup>, Fadi Al Nimri MD<sup>3</sup>, Amir Hanafi MD<sup>4</sup>  
1-4: Rochester Regional Health, Rochester, NY.

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## Introduction

- Post-dural puncture headache (PDPH) incidence 0.5-1.7% in post-partum period
- PDPH presentation is highly variable
- PDPH merits broad differential due to potentially life-threatening underlying complications of the procedure
- Might be challenging to budding internists

## Clinical Presentation

- A 32-year-old G2P2 female with uncomplicated spontaneous vaginal birth five days prior presented to ED with an unbearable “thunderclap” headache
- Received epidural anesthesia during labor
- Developed sudden onset mild generalized headache two hours following delivery
- Progressed gradually over four days to 10/10, sharp, tearing headache
- Headache worsened with standing or sitting from a supine position

## Examination and Treatment

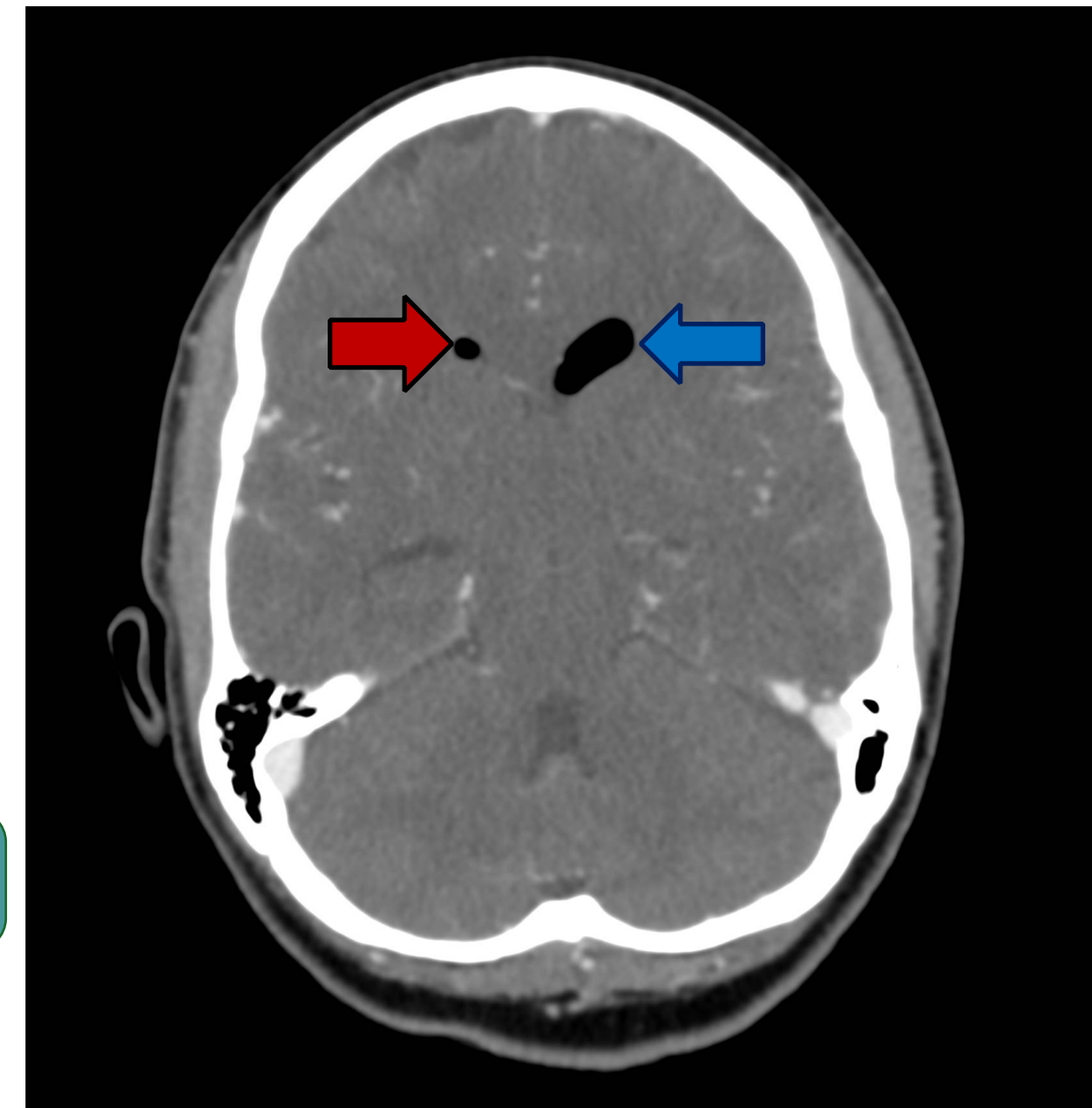
- Physical exam including epidural site, labs WNL
- CT venogram: air within lateral ventricles (see image to right)
- Diagnosis: Acute bilateral iatrogenic pneumoventricle secondary to epidural anesthesia.
- Received IV caffeine and methylprednisolone x 48 hours, discharged on 10 days of oral PRN caffeine tablets and methylprednisolone taper
- Outpatient follow-up two weeks later, reported complete resolution of symptoms

## Discussion

- Pneumocephalus mortality rate unknown
- Case reports of cardiac arrests and deaths related to the condition.
- Treatment is controversial and dependent on presentation.
- Treatment options include conservative management, normobaric continuous oxygenation at 5 L/min for five days, 100% oxygen, or hyperbaric chamber

- An extreme variation of the pathology, tension pneumocephalus, neurosurgical emergency

## Radiology



CT Venogram showing the presence of air in the Ventricles: left (blue arrow, 20.49 mm x 9.49 mm) greater than right (red arrow, 5.12mm x 4.49mm)

## References

1. Ana Filipa Pires, Teresa Martins Mendes, Ana Areia Reis, Ana Ferreira Pacheco, Vitor Fagundes, Mari Mesquita. A Symptomatic Pneumocephalus as a Complication of Lumbar Epidural Anesthesia. *European Journal of Case Reports in Internal Medicine* 2020;(Vol 7 No 2).
2. Reddi S, Honchar V, Robbins MS. Pneumocephalus associated with epidural and spinal anesthesia for labor. *Neurology: Clinical Practice* 2015;5(5):376–82.