34-year-old male with altered mental status

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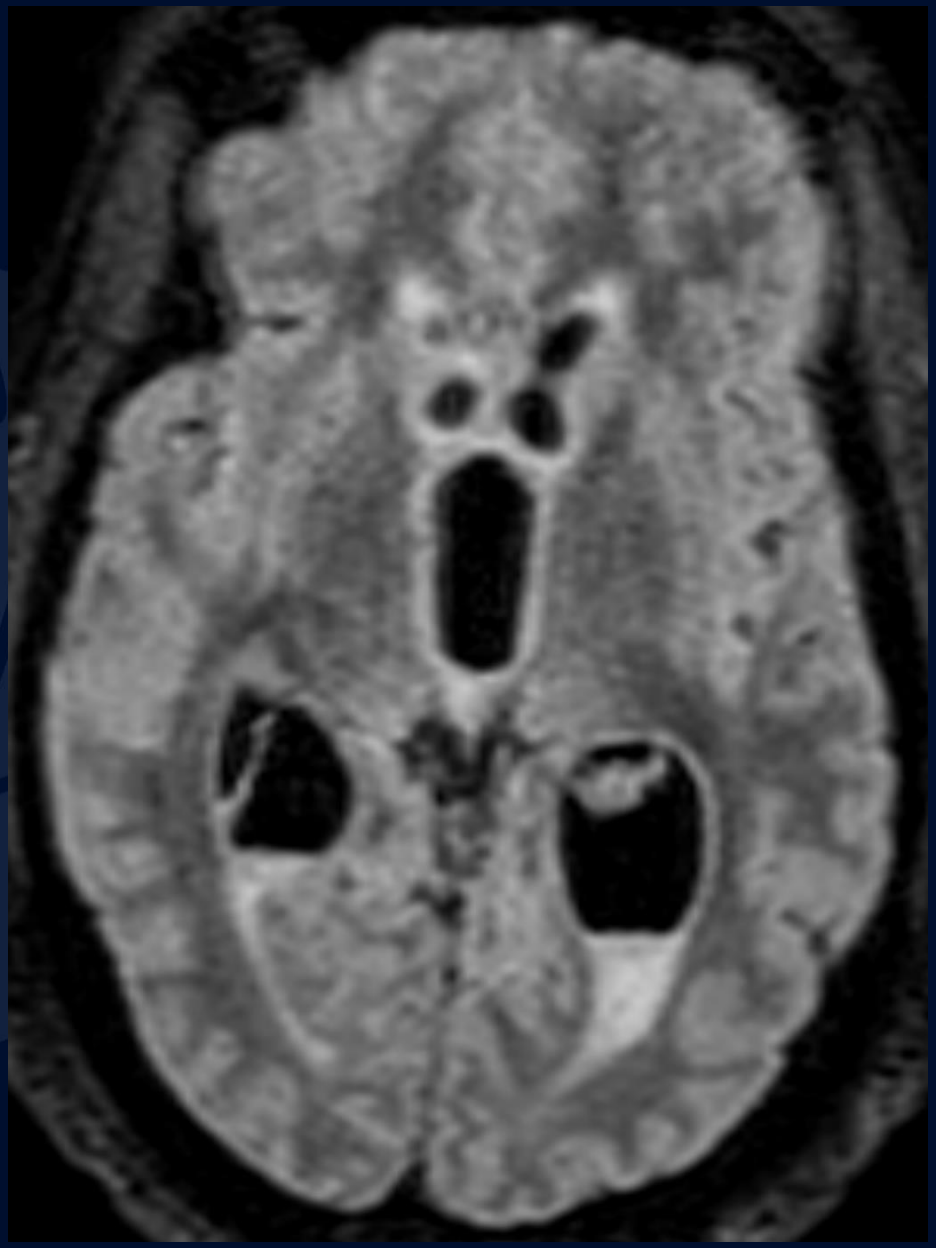

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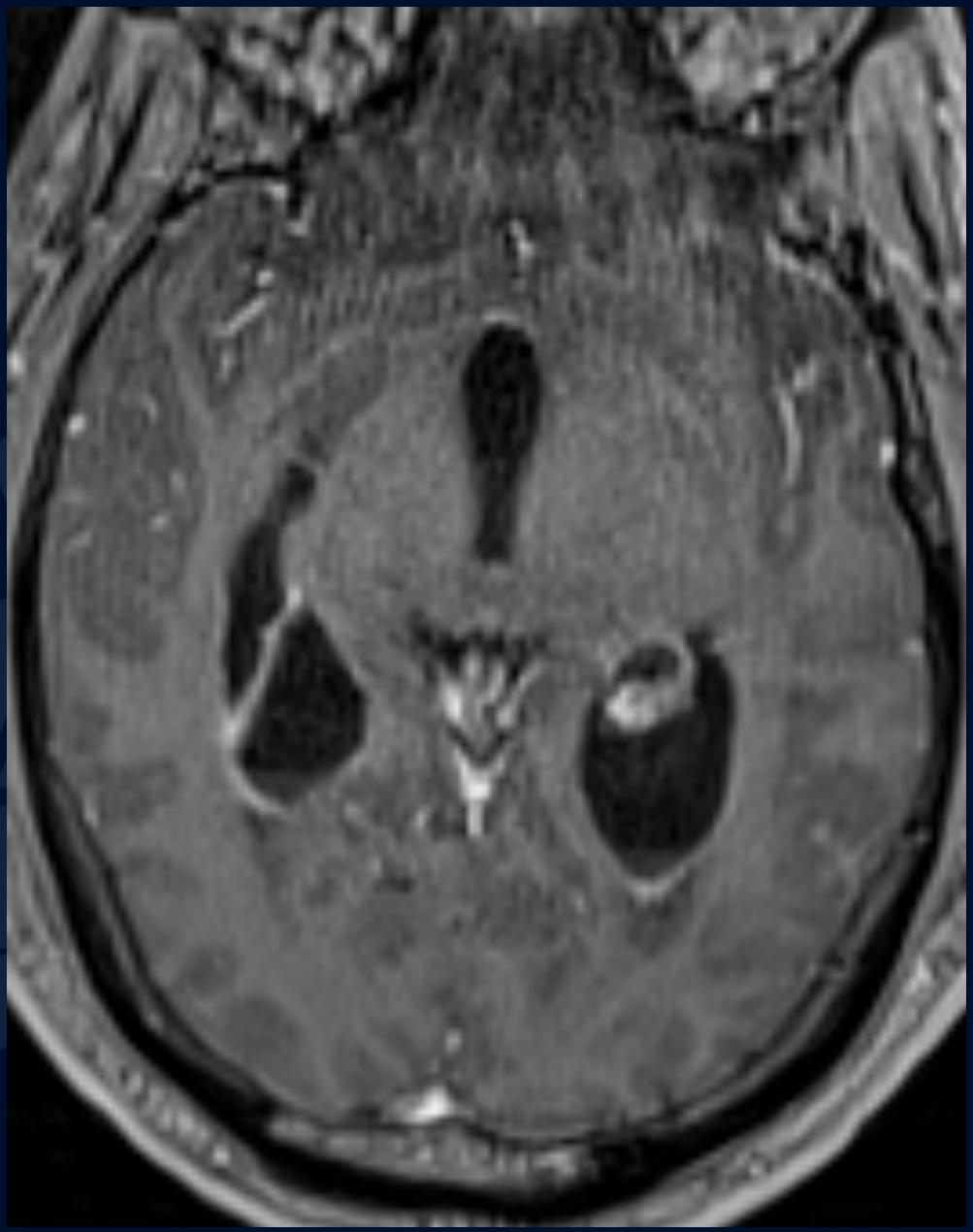

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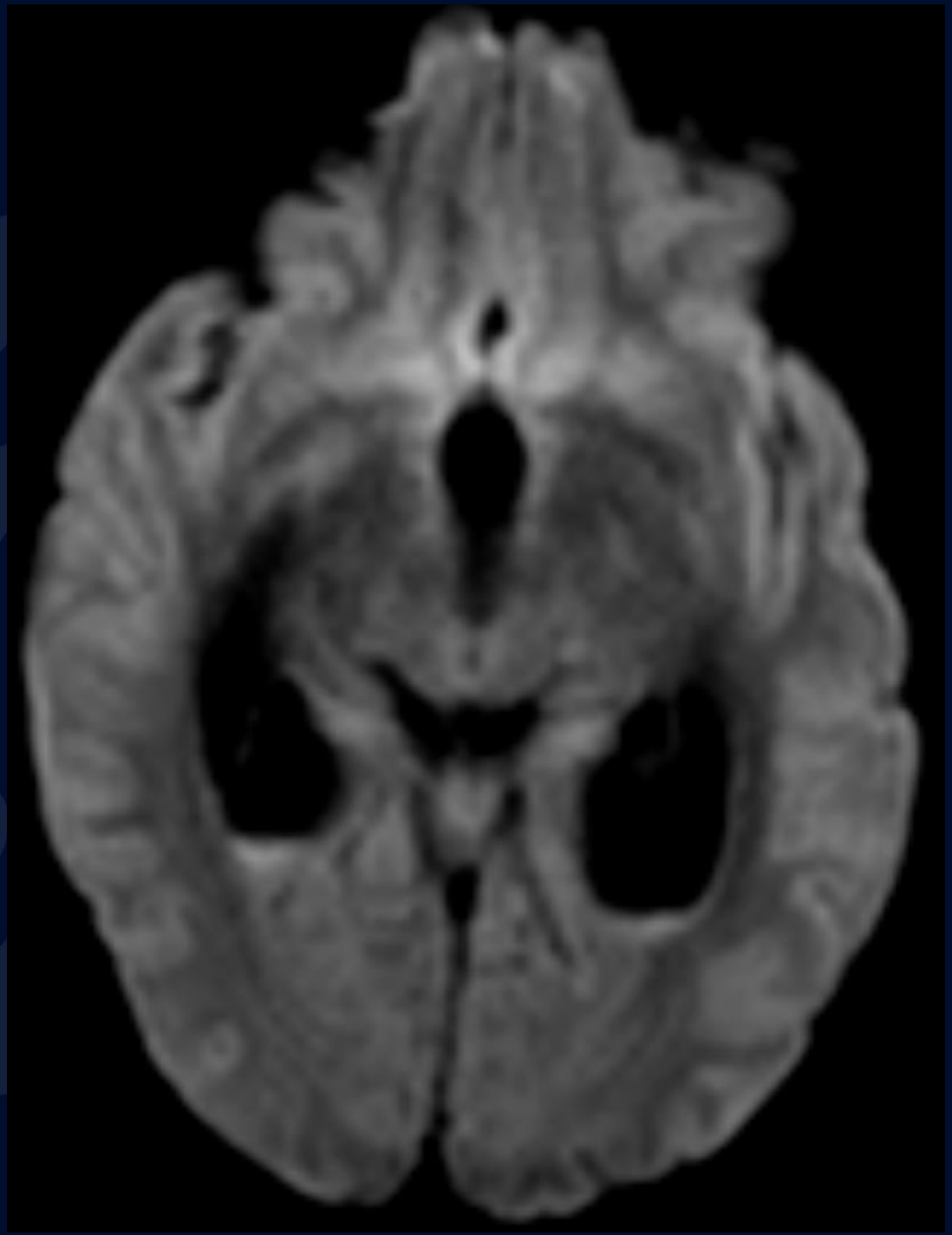

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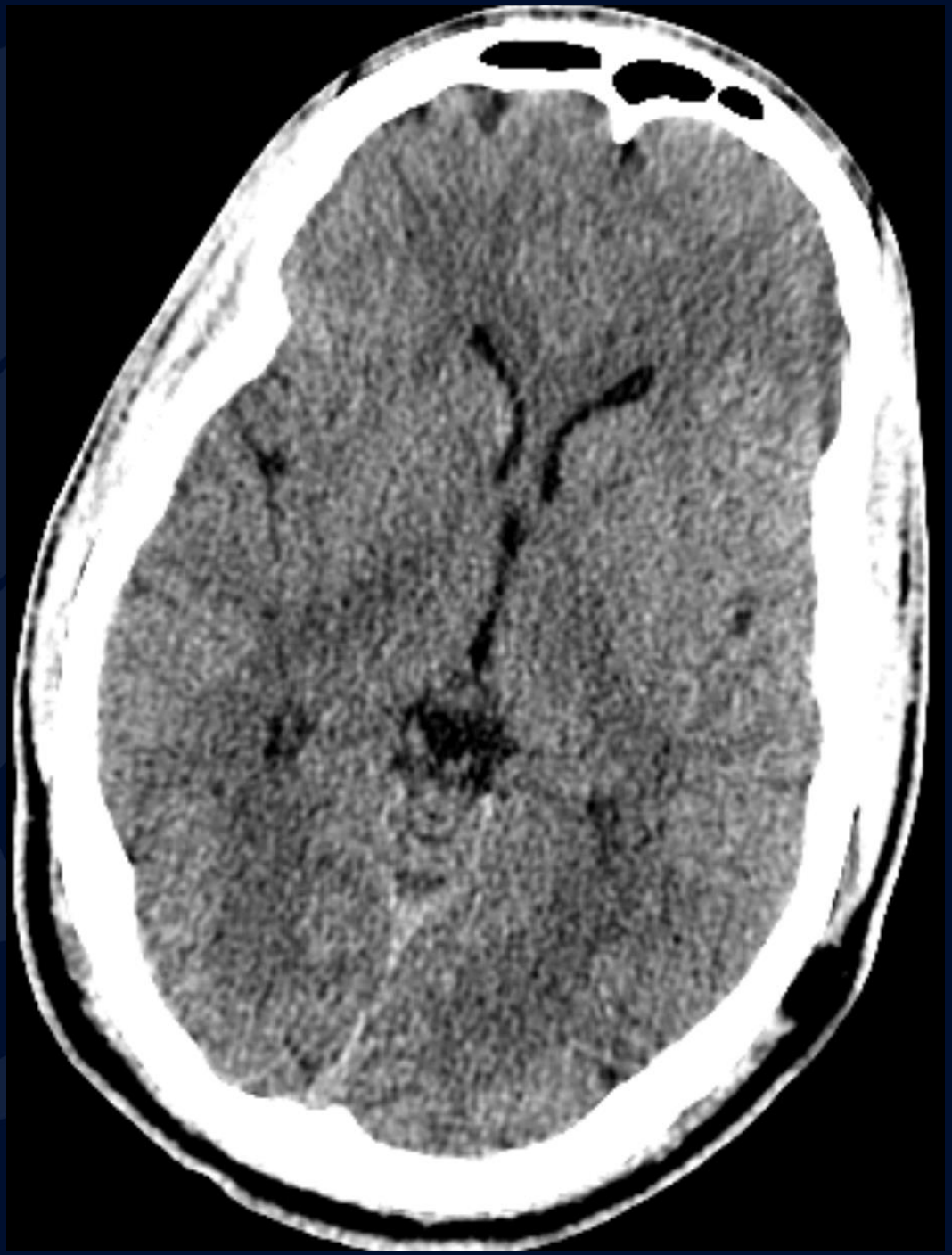

5 years earlier

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Ventriculitis

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Ventriculitis

Pathology

- Infection of the ventricular system of the brain (CSF).
- Primarily bacterial: S. aureus, gram-negative bacilli, S. pneumoniae.
- Less common: Fungal, viral (HSV).
- Secondary to: Meningitis, neurosurgery, intraventricular devices.
- Inflammatory response → BBB breakdown → pus formation → potential hydrocephalus.

Ventriculitis

Epidemiology

- All ages
- Increased risk:
  - Post-neurosurgery (ventricular access)
  - Pre-existing meningitis
  - Intraventricular devices
  - Immunocompromised

Ventriculitis

Clinical Presentation

- Fever
- Headache
- Altered mental status (lethargy to coma)
- Nausea / vomiting
- Neck stiffness (meningismus)
- Focal neurological deficits
- Seizures
- ↑ Intracranial pressure (papilledema)

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Ventriculitis

Radiologic Features

CT:

- Hydrocephalus, periventricular edema, intraventricular debris/air

MRI:

- Ependymal enhancement
- Intraventricular debris/fluid levels
- DWI: Restricted diffusion (pus)
- FLAIR: Increased signal in ventricles

Refrences

Aguero, Rosaura Suazo; Rojas, Rafael (2024). "Brain Infections". What Radiology Residents Need to Know: Neuroradiology. Cham: Springer International Publishing. pp. 159–176.

Frank Gaillard. Ventriculitis. Radiopaedia.org. Published May 1, 2011. https://radiopaedia.org/articles/ventriculitis?lang=us

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