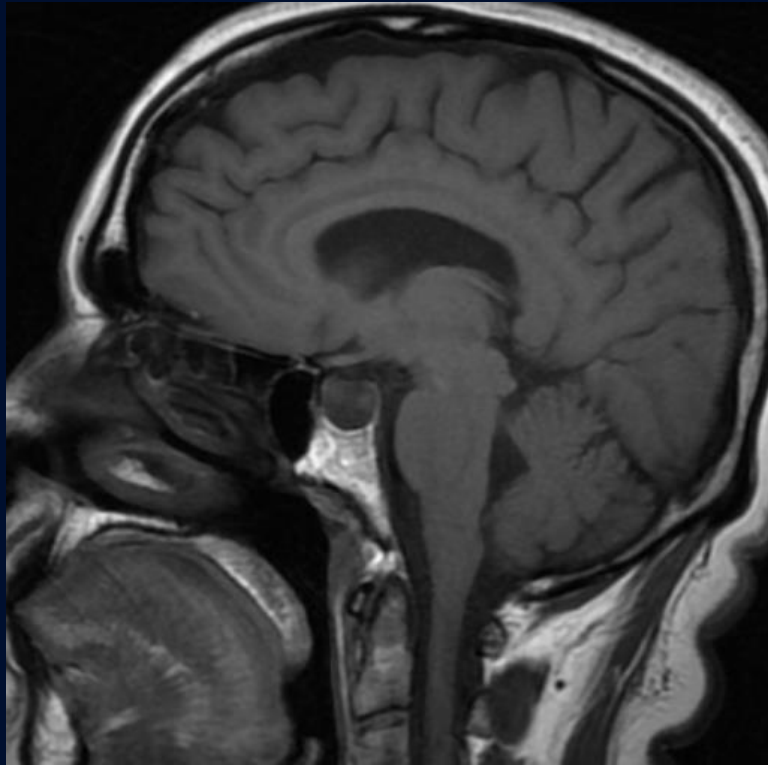
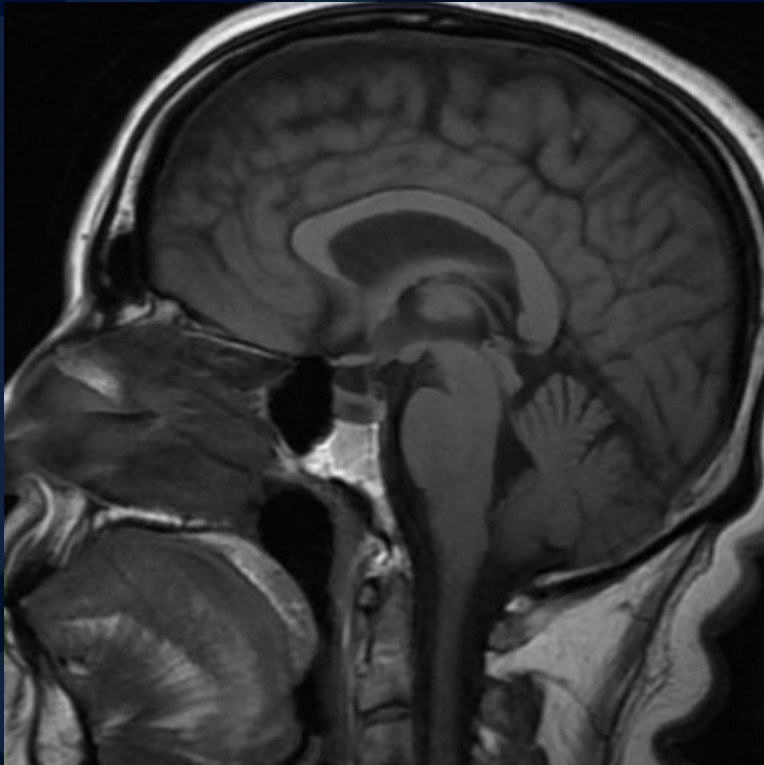


**45-year-old right-handed female who presents for surveillance MRI imaging for a known clinical condition. Overall, she states that she is doing well clinically. She occasionally has frontal sinus type headaches.**

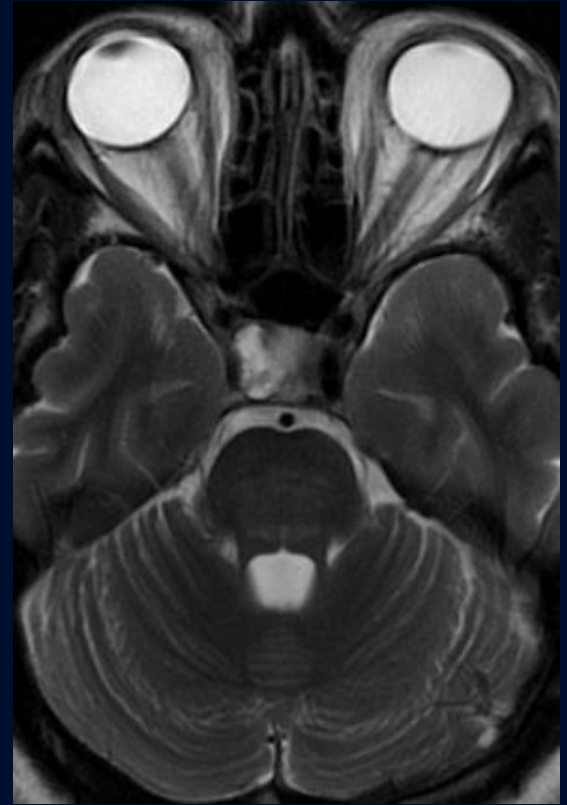
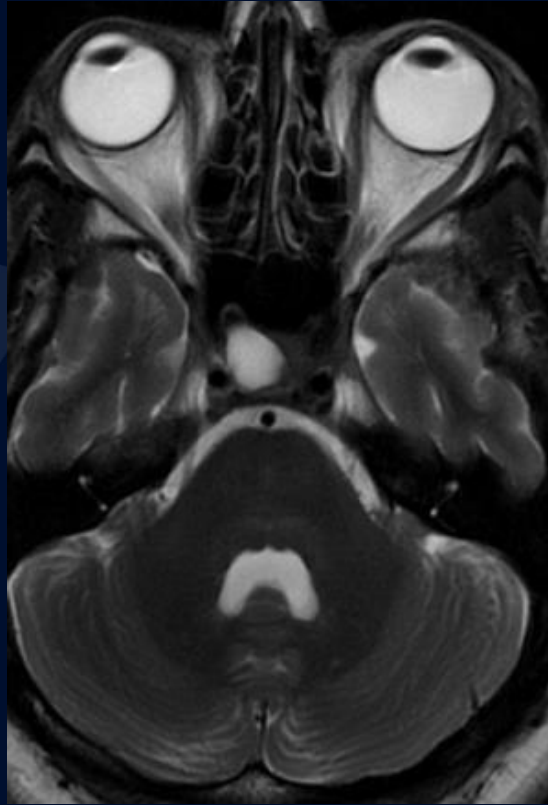
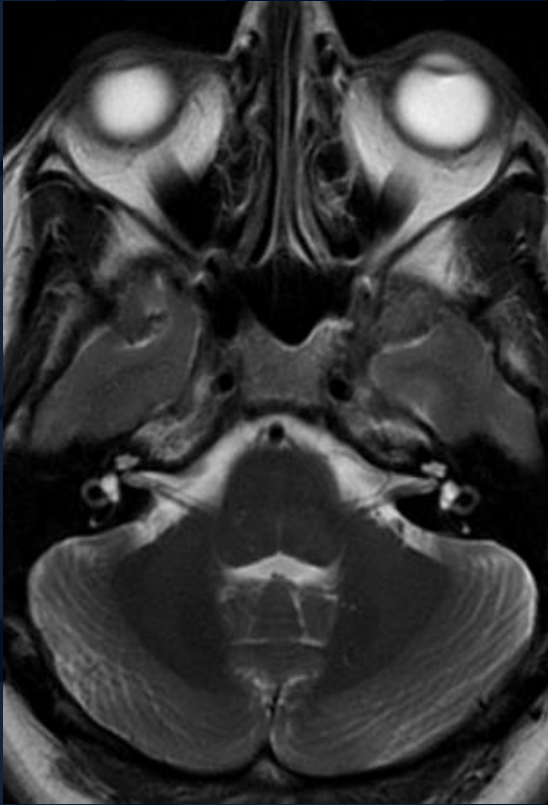
Erica Shen, MD PhD

Michael T. Baldwin, MD

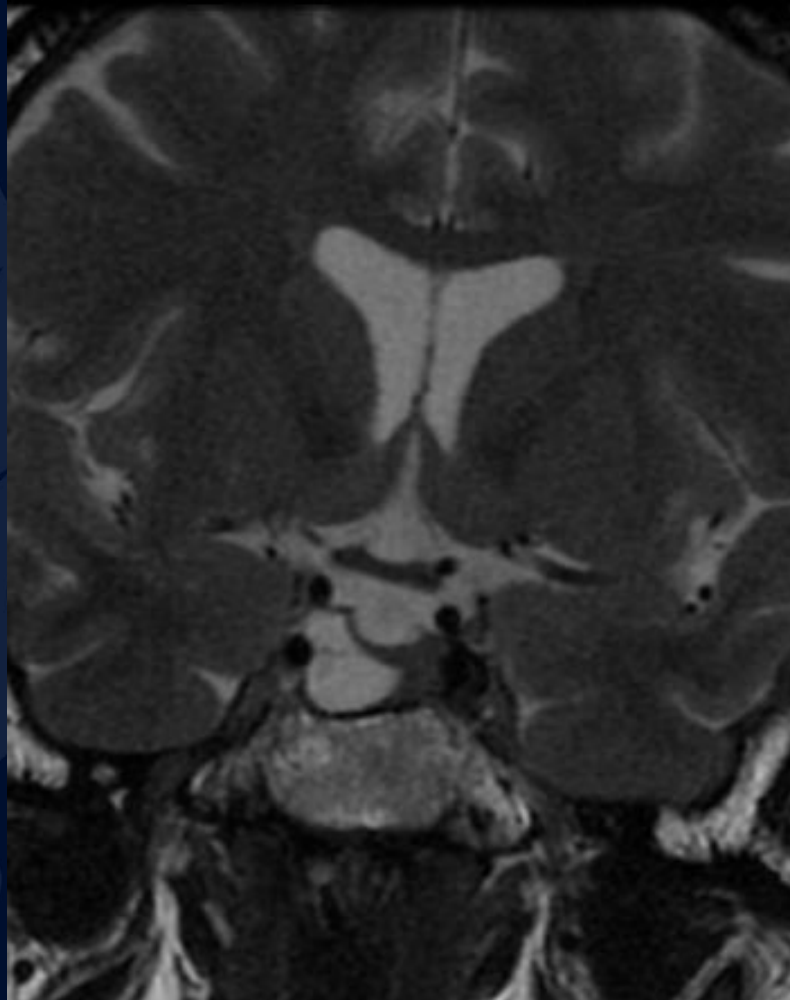
Leo Wolansky, MD



T1 Sagittal



T2 Axial



T2 Coronal



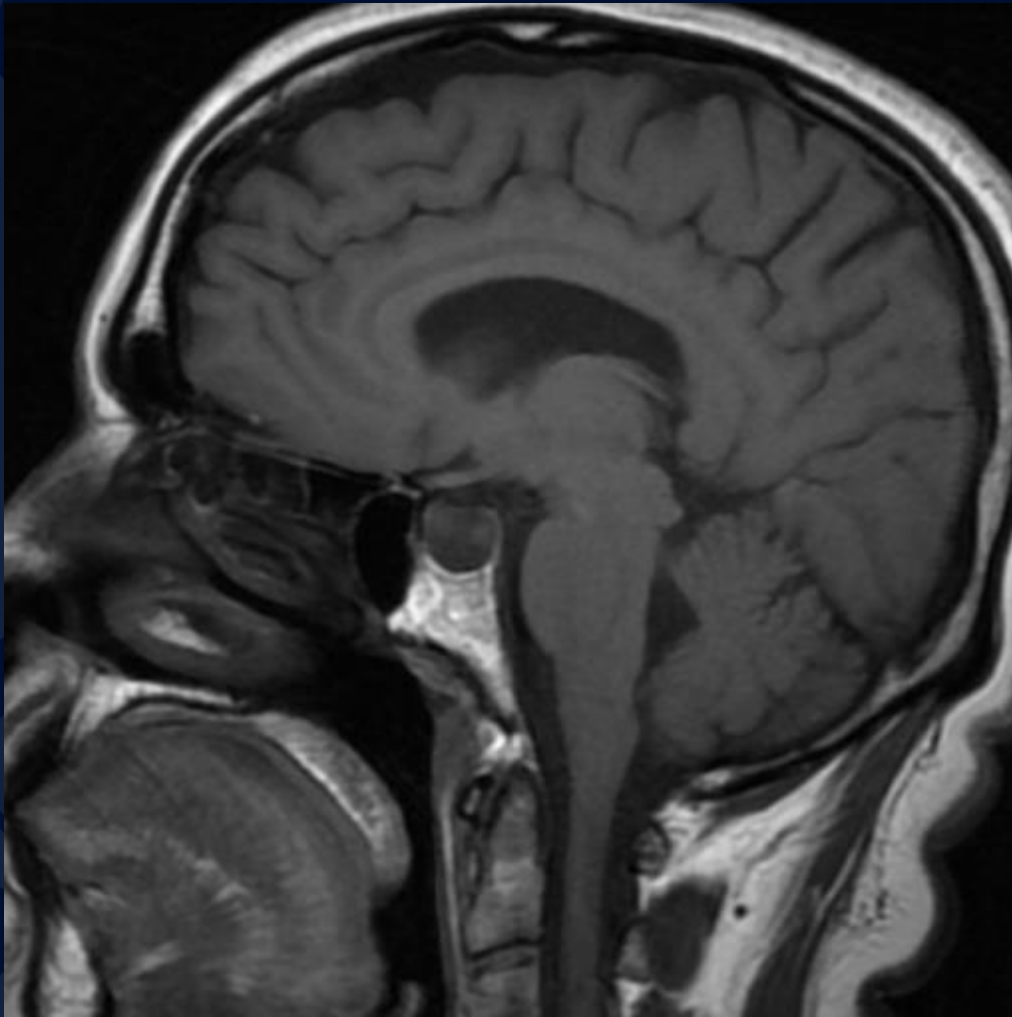
**UConn**  
**HEALTH**  

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**RADIOLOGY**

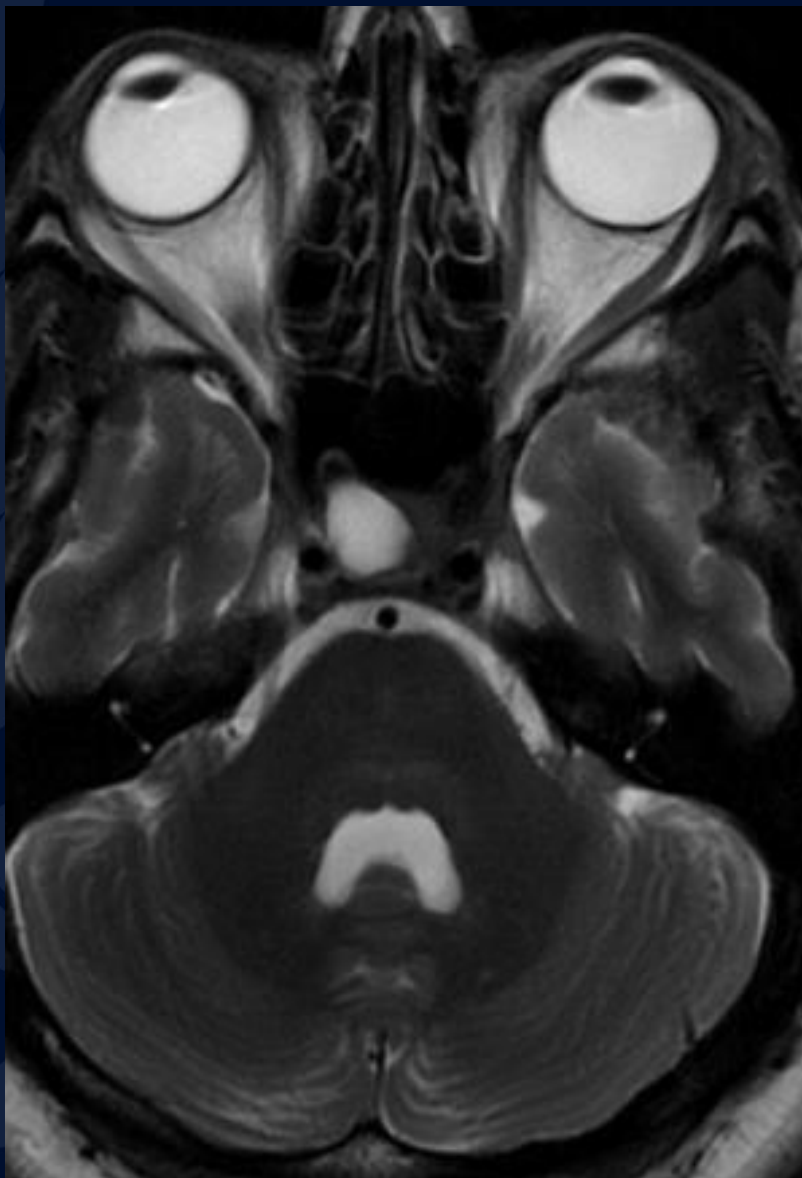
A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off, with a wavy, lobed edge.

# Rathke Cleft Cyst



## T1 Sagittal

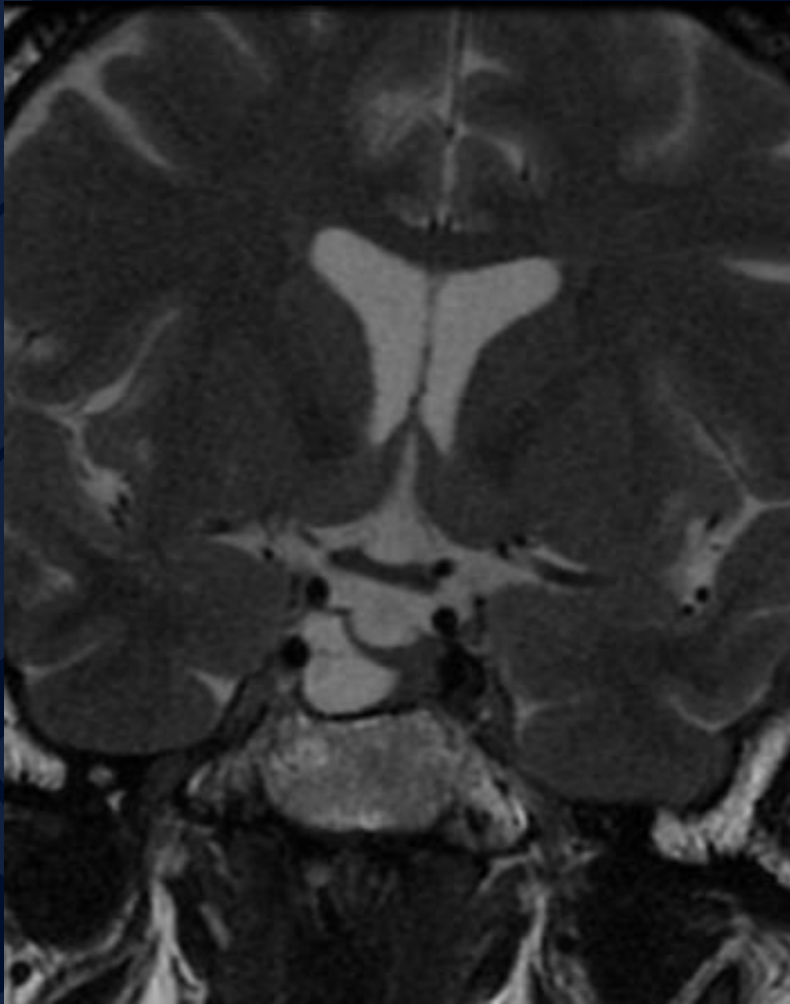
- Isointense cystic lesion centered within the right inferolateral aspect of the adenohypophysis.
- Lesion measures approximately 13 mm CC x 12 mm TRV x 13 mm AP.



## T2 Axial

- Multilobulated T2 hyperintense cystic lesion centered within the right inferolateral aspect of the adenohypophysis.
- The infundibulum remains minimally deviated to the left.
- No mass effect is exerted upon the optic chiasm.
- The cystic lesion extends within the medial aspect of the right cavernous sinus.
- The adjacent cavernous segment of the right internal carotid artery remains patent.





## T2 Coronal

- Multilobulated T2 hyperintense cystic lesion centered within the right inferolateral aspect of the adenohypophysis.
- The lesion measures 13 mm CC x 12 mm TRV x 13 mm AP.
- The infundibulum remains minimally deviated to the left.
- No mass effect is exerted upon the optic chiasm.
- The cystic lesion extends within the medial aspect of the right cavernous sinus.

# Rathke Cleft Cyst

- Nonneoplastic.
- Arising from remnants of embryonic Rathke cleft.
- Majority cases are discovered incidentally.
- Peak presentation 40-50 years; female predominance.
- Diabetes insipidus (DI) in 7-20% of all patients.
- Typical presentation:
  - Headaches;
  - Endocrine dysfunction;
  - Visual loss;
  - Chemical meningitis;
  - Lymphocytic hypophysitis;
  - Intracystic hemorrhage.

Zada, G., *Neurosurg Focus*, 2011.

Zada, G., Lin, N., Ojerholm, E., Ramkissoon, S., Laws, E.R., *Neurosurg Focus*, 2010.

<https://radiopaedia.org>

# Imaging Findings

- Well-circumscribed.
- Spherical or ovoid shaped lesions in the sellar region.
- Diameter ranges from 5 to 40 mm.
- Little or no enhancement on MRI with Gadolinium.
- The cyst can be hyperintense or hypointense on MRI  $T_1$  and  $T_2$ .
- Typically, non-calcified and of homogenous low attenuation on non-contrast CT scan.
- Patients should have ophthalmology and endocrinology consults.

Zada, G., *Neurosurg Focus*, 2011.

Zada, G., Lin, N., Ojerholm, E., Ramkissoon, S., Laws, E.R., *Neurosurg Focus*, 2010.

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- Harbaugh, R.E., Shaffrey, C., Couldwell, W.T., Berger, M.S. Neurosurgery Knowledge Update, a comprehensive review. New York, Thieme, 2015.
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- Zada, G., Lin, N., Ojerholm, E., Ramkissoon, S., Laws, E.R. Graniopharyngioma and other cyst epithelial lesions of the sellar region: a review of clinical, imaging, and histopathological relationship. Neurosurg Focus 2010; 28(4): E4.
- Shen, E., Baldwin, M.T., Wolansky, L. Rathke Cleft Cyst. Radiology Online, 2021.