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
T2 Coronal
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.
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.

References

• https://radiopaedia.org