74-year-old female who presents with headaches and hormonal abnormalities.

Erica Shen, MD PhD

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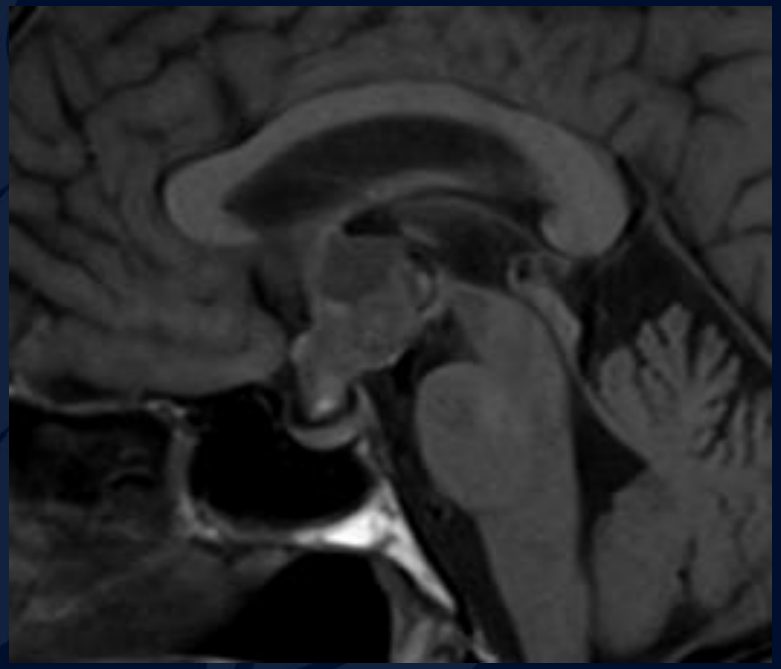
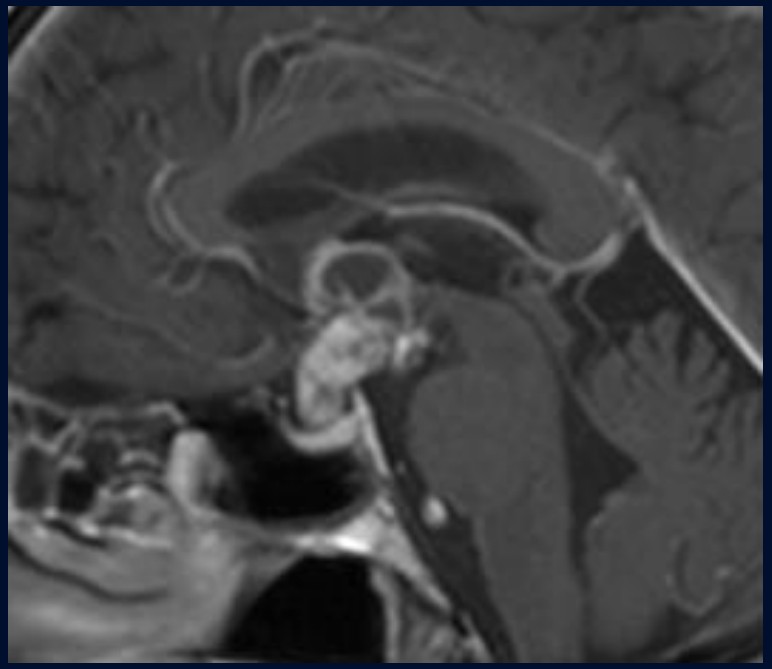


T1 Sagittal



Gd-T1 Sagittal

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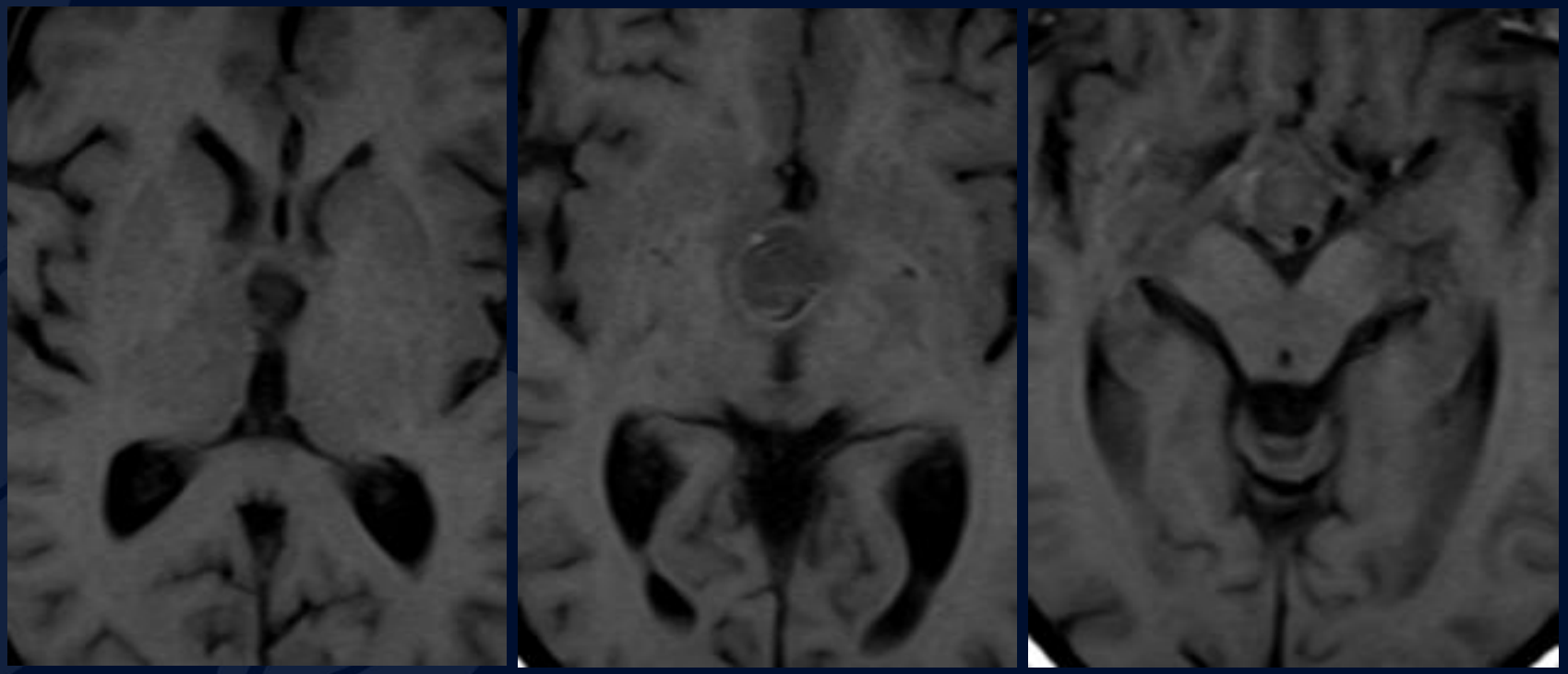

T1 Axial

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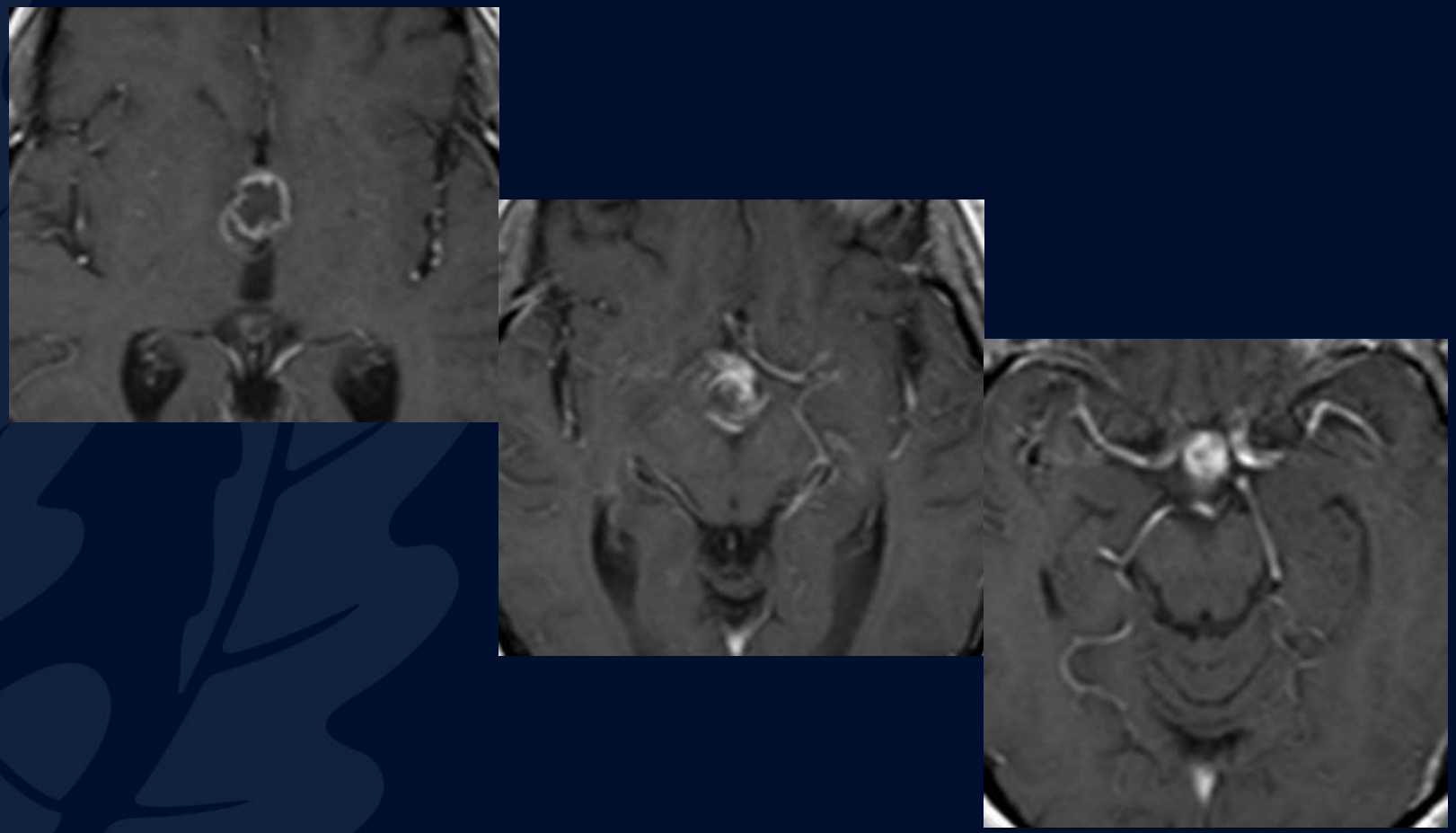

Gd-T1 Axial

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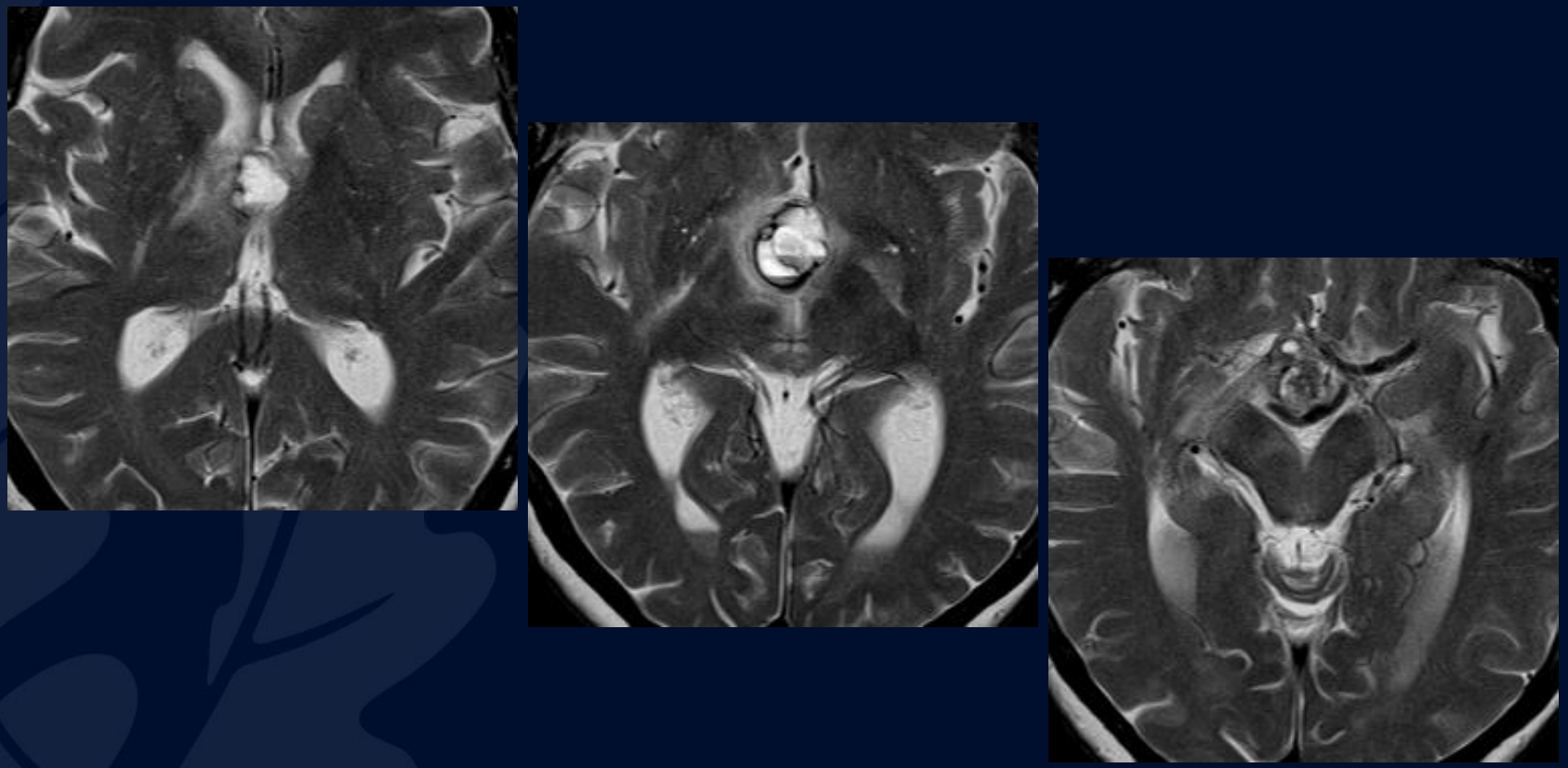

T2 Axial

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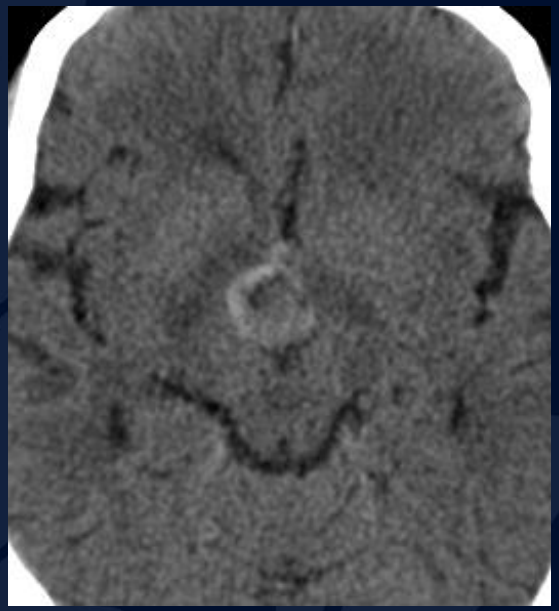
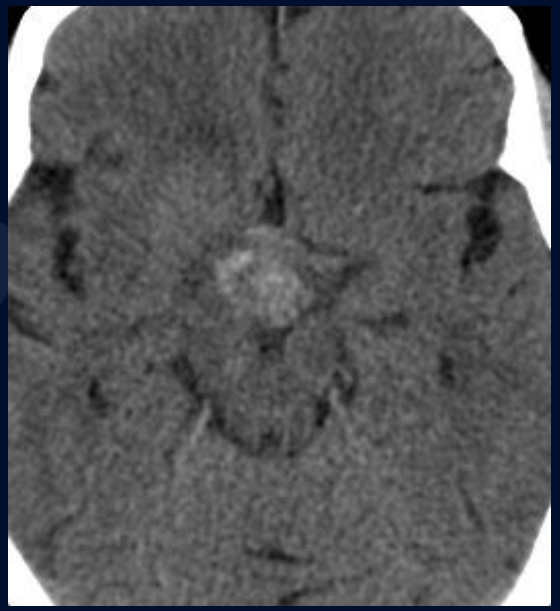
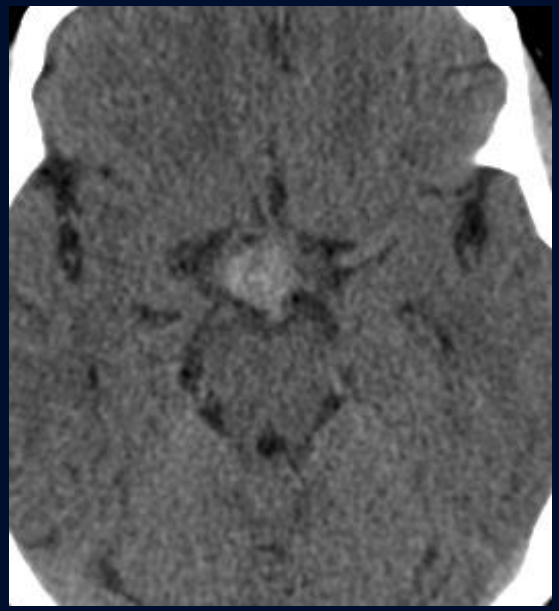

CT Axial

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Craniopharyngioma

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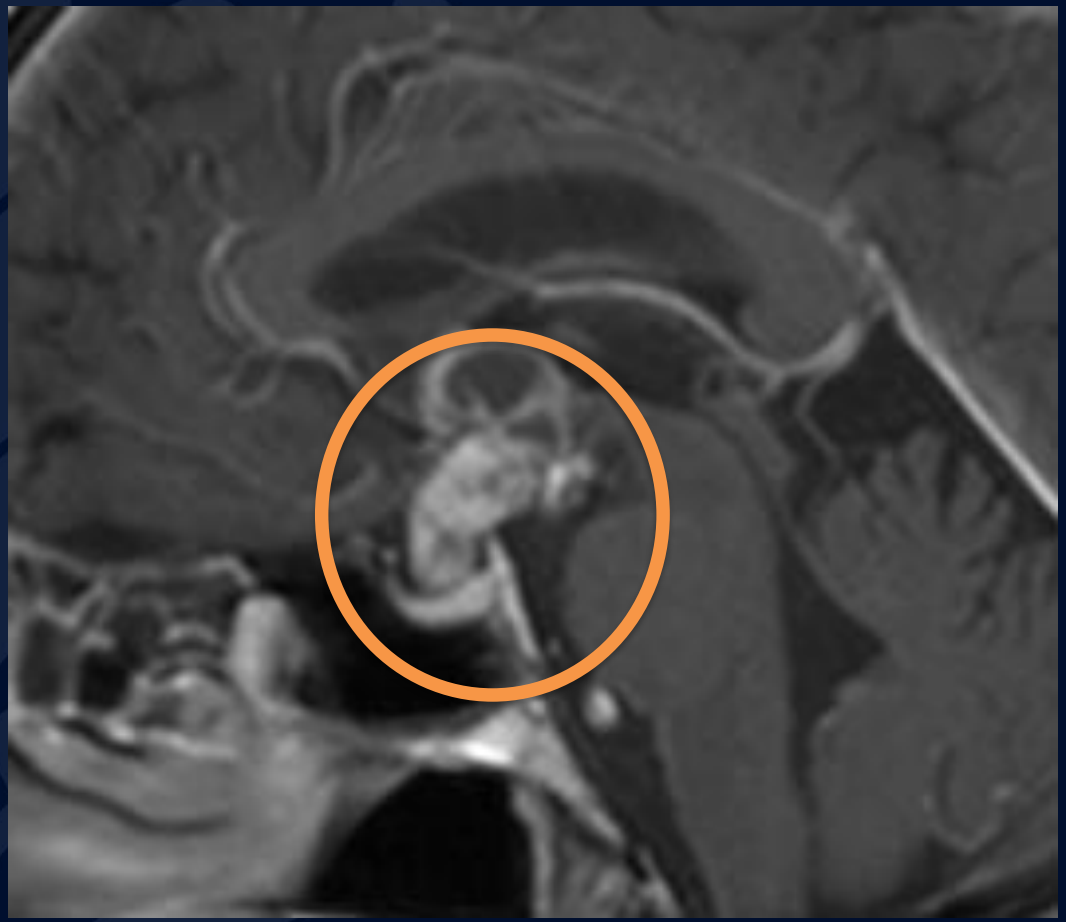

Gd-T1 Sagittal

Suprasellar, multilobulated lesion exhibiting avid heterogenous contrast enhancement on T1-Gd.

The lesion is irregular with rounded contour abutting the pituitary gland.

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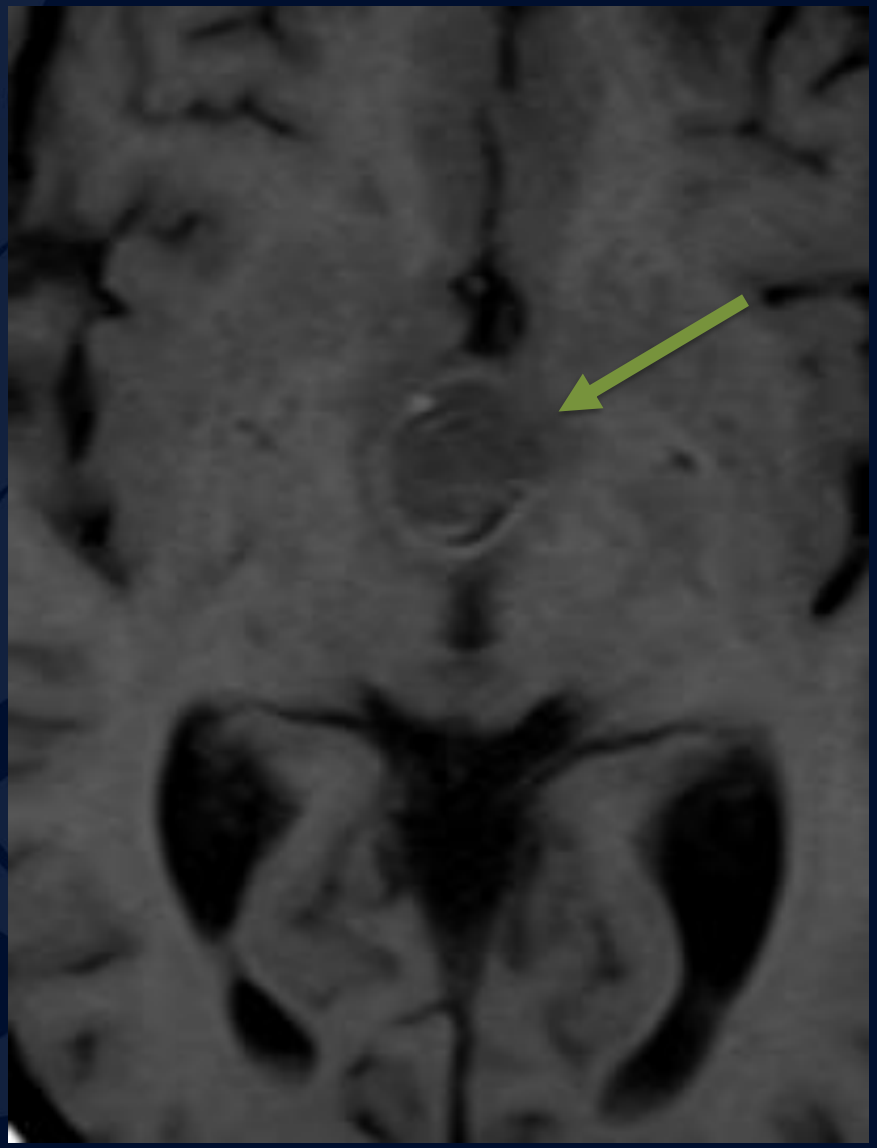

T1 Axial

The lesion is isointense to hypointense on T1.

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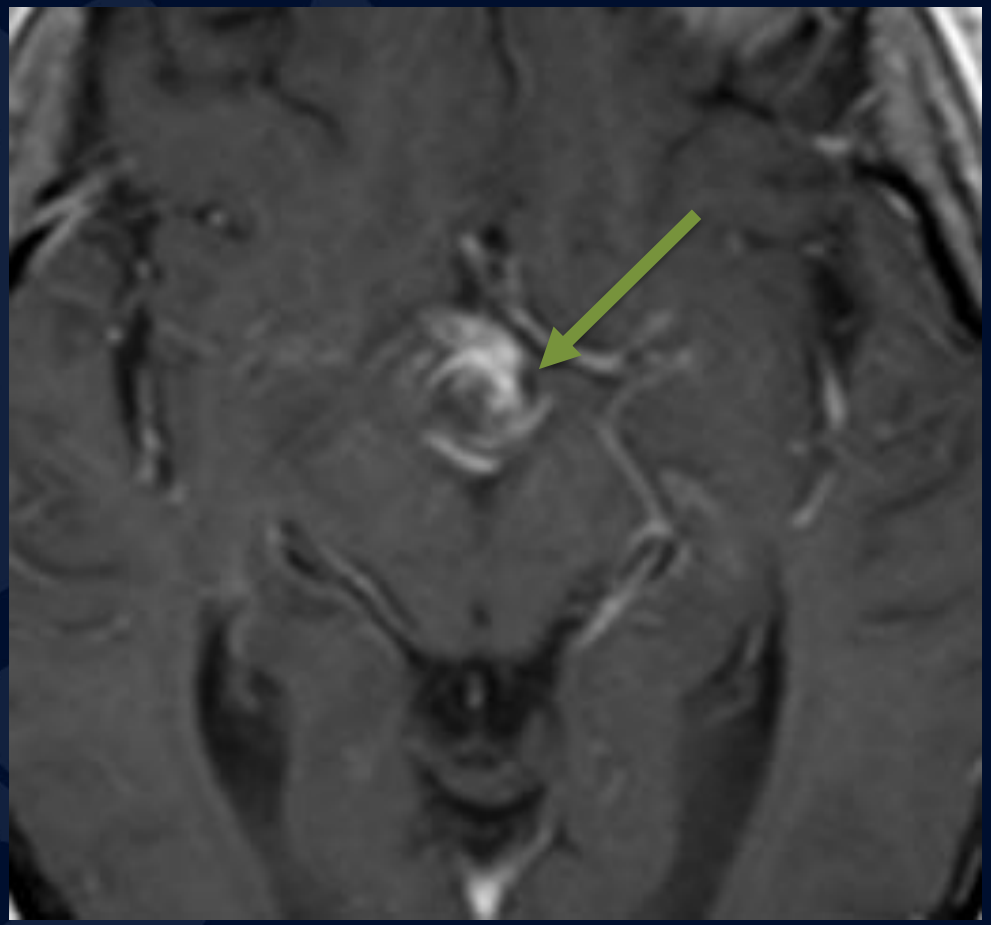

Gd-T1 Axial

The lesion exhibits avid heterogenous contrast enhancement on T1-Gd. It is irregular with rounded contour.

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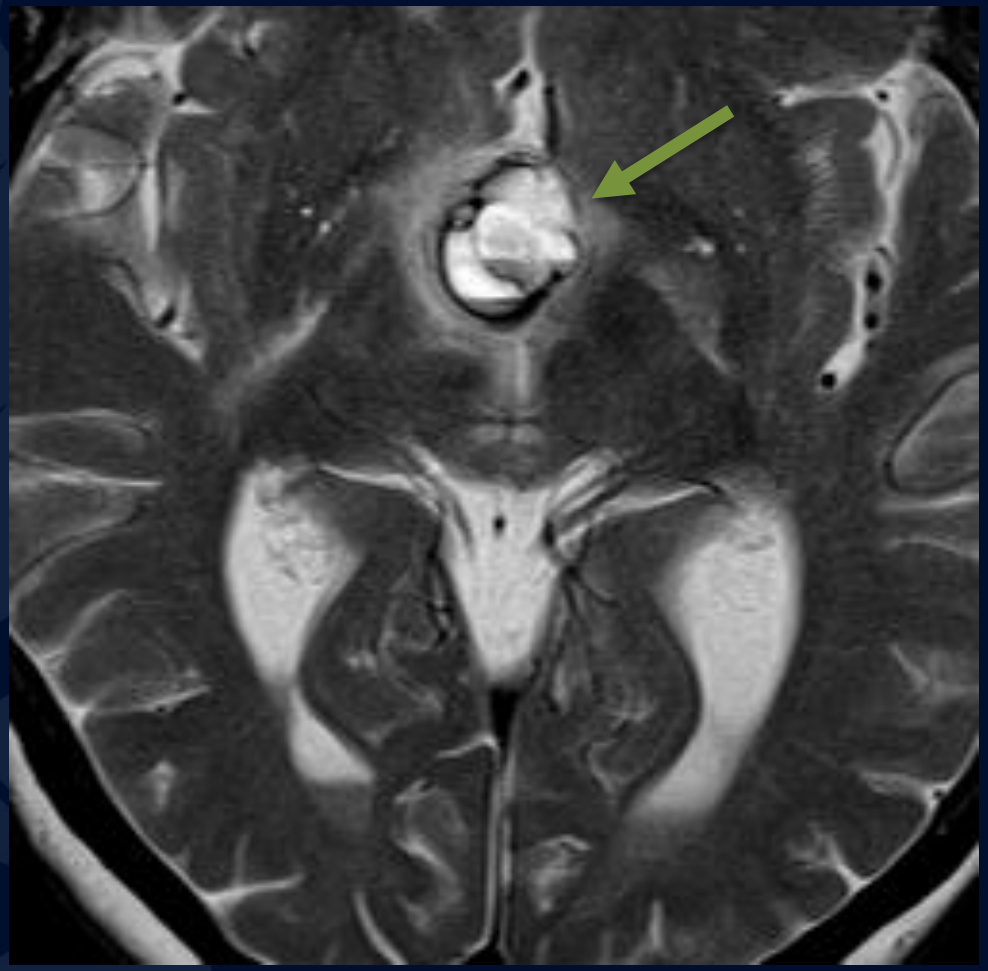

T2 Axial

The lesion is exhibiting heterogenous hyperintensity on T2.

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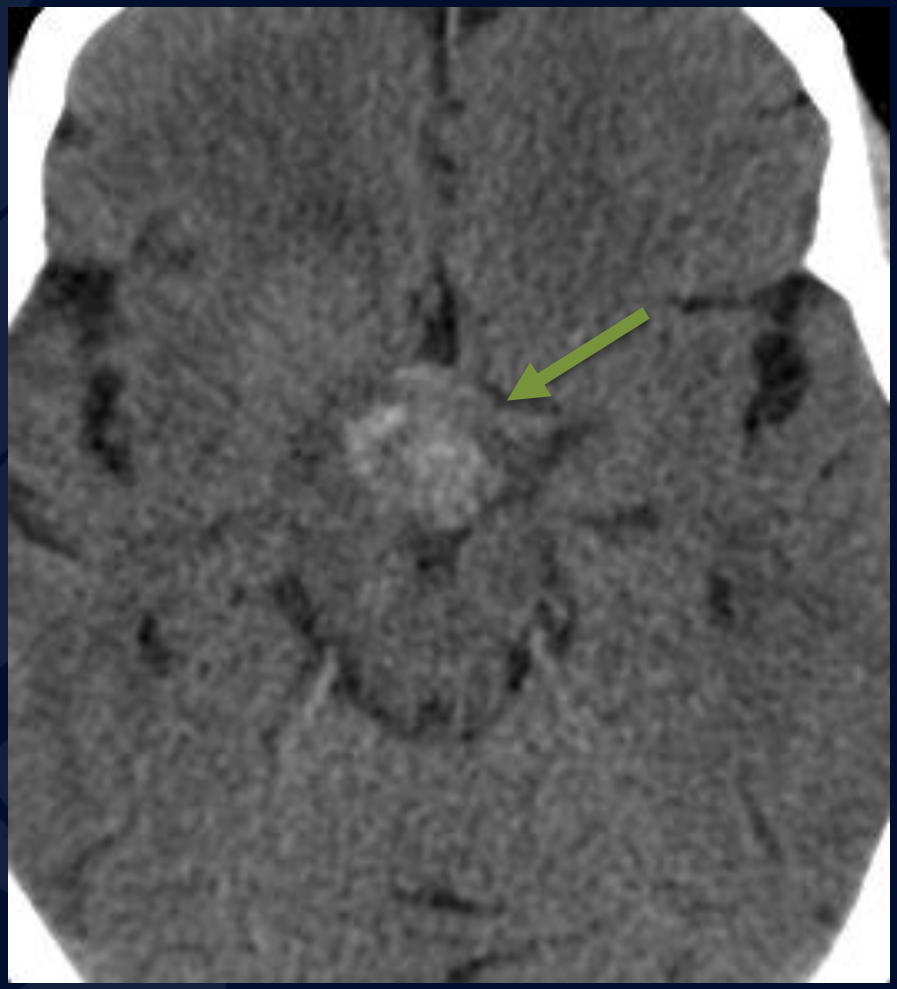

CT Axial

The lesion is heterogeneously hyperdense on CT.

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Craniopharyngioma

- Benign, partially cystic, sellar region tumor.
- Derived from remnants of craniopharyngeal duct or Rathke pouch epithelium.
- Most common non-neuroepithelial intracranial neoplasm.
  - 2-5% of all adult tumors; 5.6-13% of all pediatric tumors.
- Bimodal age distribution:
  - 1st peak: 5-15 year olds;
  - 2nd peak: 45-60 year olds.

- Two types:
  - Adamantinomatous (cystic mass in childhood);
  - Papillary (solid mass in older adults);
  - Adamantinomatous type is 10x more common than papillary type, occurs in first 2 decades of a child's life.

Mortini, P., Gagliardi, F., Boari, N., Losa, M., *Crit Rev Oncol Hematol,* 2013.
Yang, I., Sughrue, M.E., Rutkowski, M.J., et al., *Neurosurg Focus*, 2010.

Imaging Findings

- Multilobulated, often large (> 5 cm).
- Occasionally giant or multicompartmental.

- CT:
  - 90% cystic, 90% Ca^{++}, 90% enhancing in adamantinomatous type;
  - Solid, isodense, rarely calcifies in papillary type.
- MRI: signal varies with cyst contents.
  - Cysts variably hyperintense on T_1 and T_2;
  - Solid portions enhance heterogeneously;
  - Cyst walls enhance strongly;
  - Cyst contents show broad lipid peak (0.9-1.5 ppm) on MRI spectroscopy.

Mortini, P., Gagliardi, F., Boari, N., Losa, M., *Crit Rev Oncol Hematol,* 2013.
Yang, I., Sughrue, M.E., Rutkowski, M.J., et al., *Neurosurg Focus*, 2010.

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