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

Erica Shen, MD PhD
Gd-T1 Axial
Craniopharyngioma
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.
T1 Axial

The lesion is isointense to hypointense on T1.
Gd-T1 Axial

The lesion exhibits avid heterogenous contrast enhancement on T1-Gd. It is irregular with rounded contour.
T2 Axial

The lesion is exhibiting heterogenous hyperintensity on T2.
CT Axial

The lesion is heterogeneously hyperdense on CT.
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:
  • 1\textsuperscript{st} peak: 5-15 year olds;
  • 2\textsuperscript{nd} 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.

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 T₁ and T₂;
  • Solid portions enhance heterogeneously;
  • Cyst walls enhance strongly;
  • Cyst contents show broad lipid peak (0.9-1.5 ppm) on MRI spectroscopy.

References

- https://radiopaedia.org