AMSER Case of the Month: September 2018

47yo F with Vision Loss

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Patient Presentation

• 47 yo F presents for evaluation of progressive vision loss over the course of one year, worsening over the past 2-3 months, with decreased peripheral vision.
  • Associated falls at home, intermittent headaches, poor sleep, and irregular menses.
• PMHx: None
• FHx: Non-contributory
• Physical Exam
  • Bitemporal Hemianopsia on visual field testing
Pertinent Labs

• Pituitary Hormone Testing
  • FSH 8.9 mIU/ml
  • LH 4.6 mIU/ml
  • ACTH 44 pg/ml
  • TSH 1.05 mIU/ml
  • Prolactin 147 ng/ml

What Imaging Should We Order?
ACR Appropriateness Criteria: Non ischemic Visual Loss with chiasm or post-chiasm symptoms

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<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>RRL</th>
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<td>MRI head without and with IV contrast</td>
<td>Usually Appropriate</td>
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<td>Arteriography cervicocerebral</td>
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<tr>
<td>X-ray orbit</td>
<td>Usually Not Appropriate</td>
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This imaging modality was ordered by the clinician.
Findings (unlabeled)
Findings (labeled)

Coronal T1 Pre-Contrast

Red Arrow:
3.2 x 3.7 x 3.1 cm suprasellar mass with mass effect on surrounding optic chiasm and optic nerves.

Coronal T1 Post-Contrast

Yellow Arrow:
Mass is Homogeneously enhancing.

Coronal T2

Blue Arrow:
Peripheral rim of T2 enhancement, suggesting mass is extra-axial.

Sagittal T1 Post-Contrast

Green Arrows:
Dural Tail
Findings (unlabeled)
Findings (labeled)

Sagittal T1 Pre-Contrast

Sagittal T1 Post-Contrast

Pink Arrows: Preservation of Pituitary Gland
Final Dx:

Suprasellar Meningioma (surgically proven)
Differential of a Suprasellar Mass

- Mnemonic: SATCHMOE
  - Sellar Tumor (Pituitary Adenoma), Sarcoid
  - Aneurysm
  - Teratoma or Tuberculosis (granulomatous diseases)
  - Craniopharyngioma, Cleft Cyst (Rathke), Chordoma
  - Hypothalamic glioma, Hamartoma of Tuber Cinereum, Histiocytosis
  - Meningioma, Metastasis
  - Optic Nerve Glioma
  - Epidermoid/Dermoid/Teratoma
Meningioma

• Typically benign extra-axial mass arising from meninges.
• MRI is modality of choice.
• Homogeneously enhancing on T1 with IV gadolinium contrast.

• Classic Imaging Findings
  • Dural Tail: 52-78% of cases, Thickened dura adjacent to the lesion.
  • Arterial Narrowing: Useful for differentiating from pituitary adenomas, which typically push arteries away rather than narrowing them.

• Treatment
  • Surgical Excision
References:


