ALLERGIC FUNGAL SINUSITIS WITH EPIDURAL EXTENSION MIMICKING INVASIVE DISEASE

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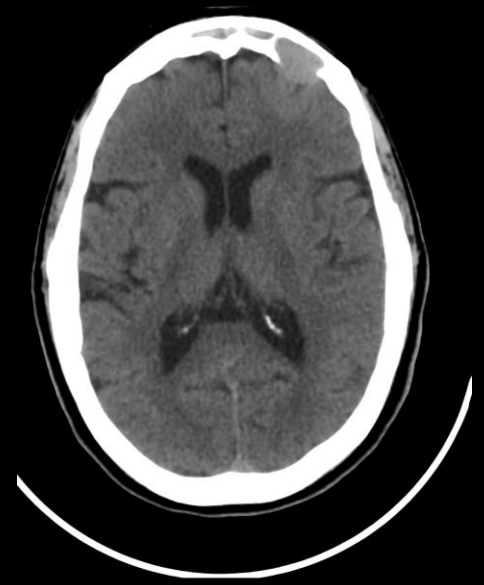
CLINICAL PRESENTATION

- **Patient:** 61-year-old female
- **PMH:** hypertension, seizures, migraines, chronic sinusitis with nasal polyps.
- **Presentation:** Emergency department visit for elevated blood pressure; complained of chronic left-sided headaches, photophobia, vomiting.

IMAGING DISCUSSION

CT Brain w/o contrast:

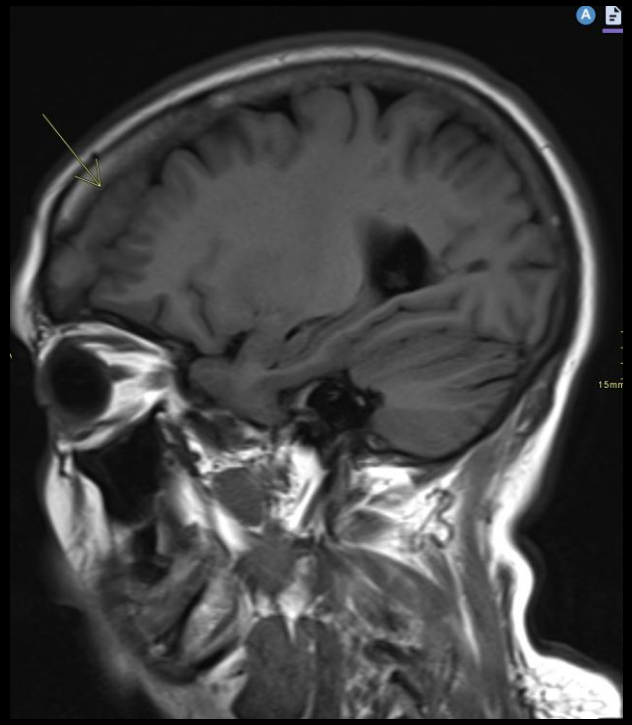
- Extensive paranasal sinus disease
- Osseous dehiscence of posterior left frontal sinus wall
- Intracranial extension with frontal lobe "boot"-shaped mass

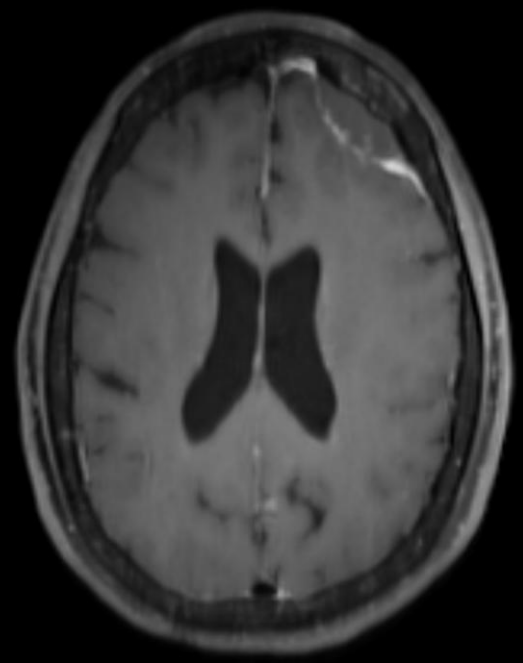


IMAGING DISCUSSION CONT.

MRI Head w/ contrast:

- Findings consistent with **allergic fungal sinusitis**
- **1.1 cm epidural collection → suspicious for epidural abscess**





MANAGEMENT

- **Initial therapy:** IV dexamethasone, Flonase, antihistamine; empiric IV meropenem, linezolid, voriconazole
- **Surgical interventions:**
  - **06/14:** Left craniotomy with epidural abscess washout
  - **06/15:** Functional endoscopic sinus surgery (FESS) with ethmoidectomy, antrostomy, sphenoidotomy, frontal sinusotomy, septoplasty
- **Cultures:** Negative for bacteria; positive for mold (concern for *aspergillosis*)
- **Final therapy:** Transitioned to **isavuconazonium (Cresemba)** 14-day course

OUTCOME

- Tolerated both surgeries without complication
- Clinically improved and hemodynamically stable
- Discharged on antifungal therapy

DISCUSSION

- Key differentials for this case include :
  - allergic fungal sinusitis (AFS)
  - sinonasal polyposis
  - fungal mycetoma
  - sinonasal mucocele
  - non-Hodgkin lymphoma.
- The presence of complete sinus opacification with hyperdense material strongly favors AFS, though a mucocele with epidural extension remains a consideration. Prompt recognition is essential to prevent serious complications from intracranial or intra orbital spread.

TAKE HOME POINTS

- Chronic sinus disease with polyps can rarely cause **intracranial extension and epidural abscess**
- **Allergic fungal sinusitis** should be considered in refractory cases with bony dehiscence
- The Definitive management requires **combined surgical drainage and antifungal therapy**

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