AMSER Case of the Month:
August 2018

New Onset Unilateral Headache

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Patient Presentation

- 40 y/o woman presents with new onset right temporal headache
- No trauma history
- Past Medical History
  - Anti-phospholipid syndrome
  - Bilateral adrenal hemorrhage
  - Recent hospitalization for pyelonephritis
- Medications
  - long-term steroid replacement therapy
  - Anticoagulation - Lovenox
- Physical Exam
  - No focal neurologic deficits
  - T max 39.2, tachy to 104, O2sat: 97--99% on RA, RR 18--24, normotensive 130s--140s systolic
Pertinent Labs

- PT: 16.4, PTT: 138.5, INR: 1.3
- BUN: 12, Cr: 0.81
- Blood Cultures – NGTD
What Imaging Should We Order?
Select the applicable ACR Appropriateness Criteria

**Variant 3: Sudden onset of severe headache**

<table>
<thead>
<tr>
<th>Radiologic Procedure</th>
<th>Rating</th>
<th>Comments</th>
<th>RRL*</th>
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<tbody>
<tr>
<td>CT head without IV contrast</td>
<td>9</td>
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<tr>
<td>CTA head with IV contrast</td>
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**Variant 4: Sudden onset of unilateral headache or suspected carotid or vertebral dissection or ipsilateral Horner syndrome.**

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<tbody>
<tr>
<td>CTA head and neck with IV contrast</td>
<td>8</td>
<td>Include T1 fat-saturated axial images in this procedure.</td>
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<tr>
<td>MRA head without IV contrast</td>
<td>8</td>
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<td>O</td>
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<td>MRA neck without and with IV contrast</td>
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<td>MRI head without and with IV contrast</td>
<td>8</td>
<td>Perform this procedure with DWI sequences.</td>
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Findings: Multiple extra-axial lesions with fluid-fluid levels consistent with acute hemorrhage in dependent portion.
Mass Effect with Midline Shift of 3mm
Findings: Multiple extra-axial collections (arrows) with fluid–fluid levels consistent with acute hemorrhage in the dependent portion. Mass effect with midline shift of 3mm.
Findings: Multiple loculated extra-axial collections (arrows) along right hemisphere with fluid levels consistent with acute hemorrhage in dependent portion.
Findings: Additional Studies

• CTA Head: Demonstrated diffuse stenosis of cerebral vessels (ICA, Right M1, Right M2) consistent with vasculitis

• CTA Head Venogram: performed to rule out venous infarct, showing no evidence of dural sinus thrombosis
Final Dx:

Recurrent subdural hemorrhage with layering suggestive of coagulopathy.

Also Consider:
• Vascular Malformation
• CNS Vasculitis
• Meningitis with abscess formation
• Metastatic disease
Case Discussion

Subdural Hematoma
• Often secondary to trauma in adult patients
• This unusual presentation of subdural hematoma with fluid level from recurrent bleeding suggests presence of anticoagulation therapy or underlying coagulopathy.
• Fluid layering results from a hematocrit effect with acute hemorrhage dependent to serum component.

Correlating Diagnostics
• Patient underwent craniotomy revealing subdural bleeding which was evacuated.
• Pathology sent from areas of bleeding consistent with blood clot, normal dura
• Micro demonstrated negative cultures from wound and lesion.
• Prognosis for subdural hematoma requiring surgery is poor with 50-90% mortality and only 20% fully recover
References:

