Clinical Problem Solving: A Case from the Hospital

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Disclosures:

- None relevant to this presentation

Acknowledgement to clinicians involved:
  - Vasanth Sathiyakumar
  - Jessie Tao
  - Allison Tsao
  - Isabella Martin
  - Annie Antar
A 43 year-old woman presents to the Hopkins ED in August with a flu-like syndrome
43 year old woman with flu-like syndrome

- Generally healthy previously despite polysubstance abuse (nasal heroin, crack cocaine, tobacco); no IV drugs or EtOH abuse

- In usual state of health until 2 weeks prior to presentation, then developed:
  - Profound fatigue with hypersomnolence
  - Increasingly bedbound
  - Achy
A 43 year old woman with a flu-like syndrome

- In the week prior to presentation:
  - Myalgias (ascending – started in calves, progressed to thighs); arthralgias in knees and hips, but no swollen joints. Legs felt like “spaghetti”. Could barely stand up.

- 3 days prior to presentation: Nausea / Vomiting / Diarrhea (non-bloody)

- Progressive blood-tinged cough

- Fever to 101F, pleuritic chest pain
A 43 year old woman with a flu-like syndrome

- Other medical history: stab wound to right posterior chest, hysterectomy
- Meds: Methadone 75mg daily; Naproxen PRN
- Substance abuse history
  - Had been clean from heroin x 18 years until 6wks prior: Last use of intranasal heroin 2 days prior to presentation
  - Ongoing crack cocaine use (long-standing)
  - Smokes 1/3 PPD (long-term); occasional bronchitis
  - HIV negative 4 mo prior
A 43 year old woman with a flu-like syndrome

- Family History: Noncontributory
- Social History: Cleans houses for work; lives with wife
- No cruising to Alaska (No travel outside of Baltimore)
Review of Systems, etc

- No rhinorrhea, excessive lacrimation, no changes in her vision or eye pain; no changes in her hearing, no sinus pain/congestion, no swelling in her neck, no sore throat/difficulty swallowing. No dysuria, hematuria.
- No neck stiffness, no photophobia.
- No recent sick contacts; has not been around any prisons or homeless shelters. Lives with wife; works cleaning houses; no Alaska cruises (never has left Baltimore, ever).
Initial exam:

- Fatigued appearing; oriented x 3 but nodding off
- Temp: 99.7F; HR 90; RR 18; BP 112/66; sats 93% RA.
- HEENT: PERRLA, EOMI, conjunctival injection bilaterally. Icteric sclerae.
- NECK: Supple, no lymphadenopathy.
- Heart: soft flow murmur; no JVD.
Initial exam, cont:

- CHEST: patchy crackles, worse on L; splinting.
- ABD: Diffusely tender; no peritoneal signs.
- EXT: Warm and well perfused without edema. Diffuse calf pain to light palpation, worsened on dorsiflexion bilaterally. No joint swelling.
- NEURO: No focal deficits but severely limited by pain when trying to move upper and lower extremities. Reflexes intact. Sensation intact.
- Skin: no rashes apparent
<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>Normal Range</th>
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</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>8.0</td>
<td>8.5 - 10.5</td>
</tr>
<tr>
<td>Total Protein</td>
<td>6.5</td>
<td>6.0 - 8.0</td>
</tr>
<tr>
<td>Albumin</td>
<td>3.1</td>
<td>3.5 - 4.5</td>
</tr>
<tr>
<td>Total Bilirubin.</td>
<td>4.8</td>
<td>0.3 - 1.2</td>
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<tr>
<td>Alkaline Phosphatase.</td>
<td>156</td>
<td>120 - 220</td>
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<tr>
<td>Aspartate Amino Transferase</td>
<td>79</td>
<td>0 - 50</td>
</tr>
<tr>
<td>Alanine Amino Transferase</td>
<td>48</td>
<td>0 - 50</td>
</tr>
</tbody>
</table>
What now?

- Empiric antibiotics? If so, what?
- What additional lab tests?
- What additional imaging tests?
- Invasive diagnostics?
Bronch

- Alveolar macrophages
- No TB, fungus, bacteria, viruses
RUQ and renal US

- Normal
The diagnosis?

- To be presented in person at the meeting