The Rare Etiologies of Altered Mental Status That Make Thorough Investigations Paramount

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CASE PRESENTATION

CC: AMS
HPI: Confused, Febrile, Acute Hypoxic Respiratory Distress
PMHx: HIV/AIDS, HCV, PE, HTN, T2DM
PE:
- VITALS: T 104F BP: [102-230]/[68-109] HR 65-190 RR 21-33 SP02 100% on full ventilator support
- GEN: Thin, ill-appearing, acute respiratory distress
- NECK: nuchal rigidity
- LUNGS: coarse breath sounds bilaterally
- CV: Tachycardic S1/S2 present; No M/G/R
- GI: Soft, non distended, + Bowel sounds
- GU: Foley catheter
- MSK: Lethargic, arousable to noxious stimuli
- NEURO: Intubated, Intact pupillary/corneal/ occulocephalic/gag reflex
- EXT: Only moves Left upper extremity spontaneously
- SKIN: maculopapular rash on arms and legs

HOSPITAL COURSE

Lumbar puncture (LP) showed a purulent fluid

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<tr>
<th>WBC</th>
<th>PMNs</th>
<th>RBC</th>
<th>GLUCOSE</th>
<th>PROTEIN</th>
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<tbody>
<tr>
<td>144,218</td>
<td>78%</td>
<td>0</td>
<td>50</td>
<td>&gt;600</td>
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</tbody>
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The maculopapular rash extended to abdomen and upper thigh and meningitis was suspected. Patient was treated with Vancomycin and Zosyn for empiric diagnosis of Meningitis, however, his condition continued to deteriorate. Due to acute hypoxic respiratory failure he was Intubated.

Chest CT showed multiple lymph nodules and Pulmonary embolism.
Thorough investigation of CSF, BAL and stool studies revealed Strongyloides stercoralis.
Blood cultures were positive for Candida Parapsilosis and coagulase negative Staphylococcus.
The patient was treated with Ivermectin 15mg PO daily and Albendazole 400mg PO BID.

Patient’s condition continued to deteriorate and a second LP showed

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<tr>
<td>582</td>
<td>50%</td>
<td>1296</td>
<td>60</td>
<td>&gt;600</td>
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CT and MRI of the brain showed cerebral edema, cerebral hemorrhage and cortical atrophy.
Patient’s respiratory function failed to improve, several attempts at extubation were unsuccessful. Patient died of acute hypoxic respiratory failure secondary to sepsis caused by disseminated strongyloides infection, bacteremia and fungemia.

DISCUSSION

This case demonstrates the importance of thorough investigation into some of the rarest etiologies of disease regardless of what is established to be more likely. Although this patient had a classic presentation of bacterial meningitis, a number of symptoms and findings may also be present in disseminated strongyloidiasis, for example: finding gram negative meningitis on neurologic investigation or maculopapular rash following infection. This is why it is never enough to rest on what is more common especially in cases with such a significant past medical history and comorbidities.