When the Cure Becomes the Cause: A Case of Post-Amoxicillin Aseptic Meningitis
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INTRODUCTION

- Aseptic meningitis is inflammation of the meninges caused by atypical bacteria, viral infections, or more rarely, by medication
- Presented here is the ninth reported case of amoxicillin induced aseptic meningoencephalitis (AIAM) and first case reporting transient, delayed-onset, focal neurologic deficits

BACKGROUND

- 63 y/o male presented to the ED with a 4 months potential ninth neurologic diagnosis by 6 hours first medication
- Denied recent travel, pets, sick contacts, IVDU, recent time in military or confined quarters
- Migraines, controlled with rare NSAIDs.
- One week prior he underwent a tooth extraction and was started on amoxicillin
- Reported 104F temperature at home
- Amoxicillin caused meningoencephalitis.
- Insufficient consideration of diagnoses not commonly or recently experienced

EVOLUTION of the CASE

Amoxicillin

<table>
<thead>
<tr>
<th>Tooth Pulled</th>
<th>ED Visit</th>
<th>Admission 1</th>
<th>Admission 2</th>
<th>PCP f/u #1</th>
<th>PCP f/u #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/19</td>
<td>8/22</td>
<td>8/25-30</td>
<td>9/2-5</td>
<td>9/11</td>
<td>11/10</td>
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Amoxicillin-Clavulanate

- CSF 8/25: WBC 12 (35% lymph) Glucose 72 Protein 41
- CSF 9/2: WBC 29 (85% lymph) Glucose 59 Protein 52

Non- Availability Bias: Insufficient consideration of diagnoses not commonly or recently experienced

Rule out life threatening causes

Consideration of alternative diagnosis

Clinical Decision Making

Avoidance of Cognitive Bias

Temporary with drug intake and cessation

Absence of alternative diagnoses

Criteria for AIAM

Sutton’s Slip: Aggressive pursuit of the “obvious” diagnosis and failure to consider alternatives

Rash

Corticosteroids

Neurologic Deficits

Increased awareness of AIAM and other culprit drugs

Avoidance of cognitive bias in clinical decision making

COMPARISON TO PRIOR CASES

<table>
<thead>
<tr>
<th>Type of Symptoms</th>
<th>Prior Cases</th>
<th>Our Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA, nausea, fever, neck stiffness</td>
<td>6 hours - 12 days</td>
<td>2 days</td>
</tr>
<tr>
<td>Onset of Symptoms</td>
<td>1 day - 12 days</td>
<td>7 days</td>
</tr>
<tr>
<td>Cumulative Exposure</td>
<td>2 days - 4 months</td>
<td>2 months</td>
</tr>
</tbody>
</table>

LEARNING POINTS

- Increased awareness of AIAM and other culprit drugs
- Patient education about potential side effects of amoxicillin
- Avoidance of cognitive bias in clinical decision making

LITERATURE REVIEW

- Mateos V, Calleja S, Jiménez L, Suárez Mateos V, Calleja S, Jiménez L, Suárez
- Wittman J, Warner PK, Jansen RJ, Jansen RJ, Jansen RJ, Jansen
- Wittman J, Warner PK, Jansen RJ, Jansen RJ, Jansen
- Sutton’s Slip: “Obvious” diagnosis and failure to consider alternatives