Reactive Spondyloarthropathy After Infection with Chikungunya Virus

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Case Presentation

- **CC:** Right Buttock Pain

- 21 year old Jamaican female presented with right buttock pain with radiation to the back of the thigh
  - Onset: 2 weeks prior to presentation
## Case Description

- **PMH:** clinical diagnosis of Chikungunya Virus 5 months ago
- No surgeries
- No allergies

## Physical Exam

<table>
<thead>
<tr>
<th></th>
<th>Normal</th>
<th>Abnormal</th>
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<tbody>
<tr>
<td>General Appearance</td>
<td>No acute distress</td>
<td>Pain with movement</td>
</tr>
<tr>
<td>Skin</td>
<td>No rashes, lesions, or plaques</td>
<td>Mild acne on chin</td>
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<tr>
<td>HEENT</td>
<td>No oral or nasal ulcers</td>
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<tr>
<td>Neck</td>
<td>No adenopathy</td>
<td>Faint radiation of murmur</td>
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<tr>
<td>Chest</td>
<td></td>
<td>Point tenderness at junction of 3rd rib and sternum</td>
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<tr>
<td>Lungs</td>
<td>CTAB</td>
<td></td>
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<tr>
<td>Heart</td>
<td>Regular rate</td>
<td>Tachycardic, II/VI systolic murmur at the base with radiation to the carotids</td>
</tr>
<tr>
<td>Abdomen</td>
<td>Soft, NT/ND, no masses</td>
<td></td>
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<tr>
<td>Musculoskeletal</td>
<td></td>
<td>Pain w/ movement of right leg, right sacroiliac joint tenderness</td>
</tr>
</tbody>
</table>
Labs

Ca: 9.8
Albumin: 3.4
CK: 55
CRP: 3.6
ESR: 81

MRI Study
Case Description

- Chikungunya serologies: IgM negative, IgG positive
- Started on IV Ketorolac and Oxycodone PRN
- Negative blood cultures
- TTE without abnormalities
- Physical Therapy initiated

Clinical Diagnosis

- Reactive spondyloarthropathy affecting the axial skeleton in a patient with serologically confirmed Chikungunya disease
Chikungunya Virus

- Arthropod-borne virus transmitted by mosquitos
- First cases documented in Sub-Saharan Africa
- Virus has spread to southeast Asia → Europe and the Americas

<table>
<thead>
<tr>
<th>Clinical Manifestation</th>
<th>Description</th>
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<tr>
<td>Fevers</td>
<td>Severe Arthralgia</td>
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<tr>
<td>Lymphopenia</td>
<td>Nonspecific maculopapular rash</td>
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</tbody>
</table>
Relapsing Chikungunya

- Characterized by joint pain and edema
- Occur intermittently
- Migratory and involve small joints of hands, wrist, ankle, and feet
- Typically affect joints from acute phase
Relapsing Chikungunya

- No specific assays for chronic chikungunya

- Elevated CRP and proinflammatory cytokines correlate with disease activity

Discussion

- No drugs to treat infected persons and no vaccines for prevention
- Symptomatic management
- No guidelines for chronic Chikungunya treatment
Discussion

- Why do we care about a disease predominantly in Asia and Africa?
  - Globalization of Chikungunya
  - Affecting United States by travelers both from the US and those visiting

Weaver, Scott C. (2014): Figure_1.tif. PLOS Neglected Tropical Diseases. 10.1371/journal.pntd.0002921.g001.
Case Discussion

Meloxicam and Oxycodone → Prednisone and Increased Meloxicam → Improvement in Pain
Discussion

- How do we treat the long term effects?

- No arthocentesis was performed due to symptoms initially improving
- No definite connection between symptoms and chikungunya infection
- MRI findings consistent with an inflammatory sacroiliitis
Take Home Points

- With increasing world travel and global spread of disease there is an increasing need to recognize this infection
- Clinicians should be familiar with treatment options to manage the persistent and often debilitating arthralgia

References