AMSER Case of the Month
April 2024

75 y/o female presents for annual screening mammogram

Shiva Yagobian – University of Pittsburgh School of Medicine
Alisa Sumkin, DO – Lenox Hill Radiology
Patient Presentation

• HPI: 75-year-old female with a history of benign fibroadenoma on recent prior biopsy. Patient was being followed for the prior benign biopsy when incidental note of an enlarged left axillary lymph node was seen. The patient subsequently presented for short interval follow-up diagnostic mammogram and ultrasound of left axillary adenopathy.

• PMHx: There is no pertinent past medical history.

• Physical Exam: Palpable lymph node in left axilla
Pertinent Labs

- None
What Imaging Should We Order?
Select the applicable ACR Appropriateness Criteria

**Variant 1:** Female. New palpable, unilateral, axillary lump. Initial imaging of the axilla.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>Relative Radiation Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>US axilla</td>
<td>Usually Appropriate</td>
<td>O</td>
</tr>
<tr>
<td>Digital breast tomosynthesis diagnostic</td>
<td>May Be Appropriate</td>
<td>☁ ☁</td>
</tr>
<tr>
<td>Mammography diagnostic</td>
<td>May Be Appropriate</td>
<td>☁ ☁</td>
</tr>
<tr>
<td>MRI breast without and with IV contrast</td>
<td>Usually Not Appropriate</td>
<td>O</td>
</tr>
<tr>
<td>MRI breast without IV contrast</td>
<td>Usually Not Appropriate</td>
<td>O</td>
</tr>
<tr>
<td>Sestamibi MBI</td>
<td>Usually Not Appropriate</td>
<td>☁ ☁ ☁ ☁</td>
</tr>
<tr>
<td>CT chest abdomen pelvis with IV contrast</td>
<td>Usually Not Appropriate</td>
<td>☁ ☁ ☁ ☁</td>
</tr>
<tr>
<td>CT chest abdomen pelvis without and with IV contrast</td>
<td>Usually Not Appropriate</td>
<td>☁ ☁ ☁ ☁ ☁</td>
</tr>
<tr>
<td>CT chest abdomen pelvis without IV contrast</td>
<td>Usually Not Appropriate</td>
<td>☁ ☁ ☁ ☁ ☁</td>
</tr>
<tr>
<td>FDG-PET/CT skull base to mid-thigh</td>
<td>Usually Not Appropriate</td>
<td>☁ ☁ ☁ ☁ ☁ ☁</td>
</tr>
</tbody>
</table>

These imaging modalities were ordered
Findings (labeled)

Benign findings on mammogram. Axillary lymph nodes not visible on mammogram.
Findings (labeled)

Prior: Left axillary lymph node with possible mild cortical thickening measuring at the top limits/mildly prominent, 0.3 – 0.4 cm, originally favored to be reactive. Note the preservation of preserved fatty hilum.

Follow-Up: Patient was recommended for short interval 3-month follow-up, however she returned in 4 months. Follow up was recommended to evaluate if the prominent lymph node would decrease in size given possibility of a reactive etiology, which may demonstrate resolution when followed vs persistent or worsening thickening which may have a malignant etiology (discussed under case discussion). Note rounded left axillary lymph node with cortical thickening of 0.7 cm and near complete obliteration of fatty hilum on follow-up.
Final Dx:

Noncaseating granulomatous lymphadenitis
Case Discussion - Characterization and Presentation

• Noncaseating granulomatous lymphadenitis (GLA) can be classified as an infectious or non-infectious etiology (1)

• Presentation on Pathology
  • Biopsy will show noncaseating granulomas with central pallor
  • Non-infectious etiologies will have a negative acid-fast bacilli (AFB) stain and will be negative for fungi on pathology (2)

• Clinical Presentation
  • Palpable lymphadenopathy
  • Enlarged, firm lymph nodes may mimic lymphoma or malignancy on imaging and physical exam (3)
Case Discussion- Differential Diagnosis/Treatment

• DDx for **infectious** GLA includes tularemia, cat scratch disease, toxoplasmosis, tuberculosis, and BCG-histiocytosis (1)

• DDx for **noninfectious** GLA includes sarcoidosis, silicosis, hypersensitivity pneumonitis (1,2)

• DDX for axillary adenopathy: Malignancy (breast non-breast primary), infectious (bacterial, granulomatous, viral), autoimmune, iatrogenic (medication) (7)

• **Treatment**
  • The patient was referred to rheumatology for appropriate treatment and evaluation
  • The underlying infection should be treated in infectious GLA with antibiotics such as Azithromycin, Doxycycline, Streptomycin, or a TB RIPE regimen (4)
  • For noninfectious GLA, corticosteroids should be first-line therapy followed by immunosuppressive therapy (5)
Our Case

- Biopsy revealed non-caseating granulomas and was negative for AFB and fungi
- Flow cytometry was negative for lymphoma
- Given clinical symptoms and patient presentation, we suspect a diagnosis of sarcoidosis (6)
References:


