AMSER Case of the Month
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HPI: 50 y.o. F presents for annual gynecology exam

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Patient Presentation

- HPI: 50 y.o. F presents for annual gynecology exam
- PMHx: Non-contributor
- Medications: Non-contributor
- PSHx: Non-contributor
- FHx: Colon cancer in paternal uncle
- Screenings: Mammography 2016, 2019
- PE: Normal
- Pertinent labs: None
Given prior annual screening mammogram was in 2019, what imaging should we order for health maintenance purposes at this time?
Applicable ACR Appropriateness Criteria

This imaging modality was ordered by OB/GYN

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Appropriateness Category</th>
<th>Relative Radiation Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mammography screening</td>
<td>Usually Appropriate</td>
<td>☄️ ☄️</td>
</tr>
<tr>
<td>Digital breast tomosynthesis screening</td>
<td>Usually Appropriate</td>
<td>☄️ ☄️</td>
</tr>
<tr>
<td>US breast</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>☀️</td>
</tr>
<tr>
<td>MRI breast without IV contrast</td>
<td>Usually Not Appropriate</td>
<td>☀️</td>
</tr>
<tr>
<td>FDG-PET breast dedicated</td>
<td>Usually Not Appropriate</td>
<td>☄️ ☄️ ☄️ ☄️</td>
</tr>
<tr>
<td>Sestamibi MBI</td>
<td>Usually Not Appropriate</td>
<td>☄️ ☄️ ☄️ ☄️</td>
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</tbody>
</table>
Findings: (unlabeled)
Findings: (labeled)

Arrows demonstrates asymmetrically smaller L breast and absence of pectoralis major on MLO view

Arrow demonstrates asymmetrically smaller L breast on CC view
Final Dx:

Poland Syndrome
Poland Syndrome

• Definition
  • Poland Syndrome is a rare congenital condition that is characterized by unilateral absence or underdevelopment of chest-wall muscles (pectoralis minor and/or sternal/breastbone portion of the pectoralis major) and by limb abnormalities
  • Affected individuals may also have malformations of underlying rib cage, long bones, breasts or kidneys

• Etiology
  • Unclear etiology but it’s hypothesized that there is a disruption in blood supply to embryonic tissues that give rise to chest wall

• Epidemiology
  • 1 in 36,000 to 50,000 newborns, with males more likely to be affected with a right-sided predominance
Evaluation and Management

• Imaging
  • Prenatal sonographic evaluation can demonstrate unilateral limb defects and unilateral wall asymmetry
  • Adult patients
    • CT is sufficient for diagnosis and helpful for surgical planning and further evaluation for associated cardiopulmonary abnormalities
    • Mammography: hypoplasia of unilateral breast and hypoplasia or absence of pectoralis major
    • CXR: unilateral hyperlucent thorax
    • Ultrasound: chest wall to evaluate for defects of pectoralis major and minor musculature

• Treatment/Management
  • Treatment is directed towards symptom relief, requiring coordination amongst various specialists, including plastic surgeons for rebuilding of chest wall and construction of breast mound, physical therapy to improve limitations of motion and genetic counseling
References:

