The Great Mimicker Co-Presenting as Breast and Eye Inflammation

Toan Do, MD[1] and Marcia Friedman, MD[2]
[1]Department of Internal Medicine, Oregon Health & Science University
[2]Department of Rheumatology, Oregon Health & Science University

Introduction

Breast and eye inflammation are not typical co-clinical presentations resulting in broad differentials and a diagnostic challenge.

Case Presentation

HPI: A 33 y.o. F from Ethiopia without significant prior medical history presenting with recurrent mastitis, arthritis, and eye inflammation.

PMHx:
- None

Medications:
- None

Social History:
- Smoking or Vaping: Never
- Alcohol: No
- Drug: No

Physical Exam:
Gen: thin, well appearing, NAD
HEENT: Erythema of the superior nasal left sclera. No oral lesions. Left sclera injected, conjunctiva is injected, photosensitive. No LAD.
CV: RRR. Normal S1/S2. No RMG.
Pulm: Non-labored on RA. CTABL.
Abdomen: S-NT-ND. Without hepatosplenomegaly.
Breast: Left breast highly tender, erythematous, open, weeping lesions
Skin: Faint hyperpigmented rash and small papules, no pustules across forehead and cheeks. Multiple, diffuse, hyperpigmented, tender lumps on b/l LE.
MSK: Synovitis and tenderness of the knees, ankles, wrist, and elbows

Labs:
- ESR 64, CRP 91.9-108
- ACE 23
- RF 15 (H), CCP 2
- ANCA <1:20
- HLA-B27 negative
- ANA undetectable
- Vitamin D-25 7.6 (L)
- Negative HIV, Lyme, RPR, QuantiFERON, hepatitis
- Sputum culture negative

Diagnostic:
- Breast culture
  - +Corynebacterium
- Breast needle biopsy
  - Benign tissue with acute and chronic inflammation and abscess formation. No granulomas identified. AFB, GMS, and gram stain negative for microorganism
- CT chest
  - >/20 pulmonary nodules
  - Sub-4 mm left lower lobe nodules
  - Scattered small nodules (previously resolved)
  - Repeat CT s/p prednisone with resolution of nodules

Clinical Course

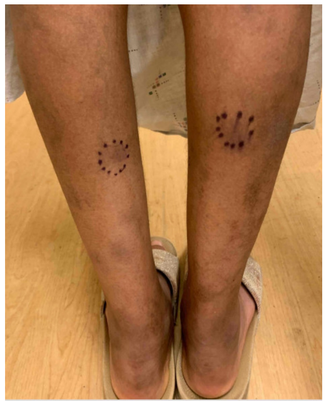
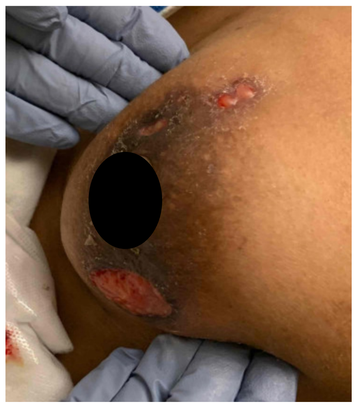
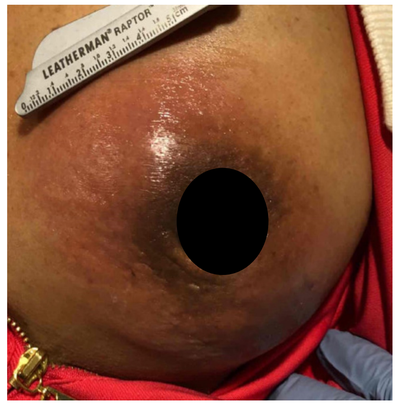
Nov 2019
- Left sided breast pain and swelling
- Breast biopsy:
  - Acute/chronic inflammation, no atypia, no granuloma
- Breast aspiration: +1 Corynebacterium
- Treatment:
  - Several courses of antibiotics (dicloxacillin, Augmentin, Bactrim)

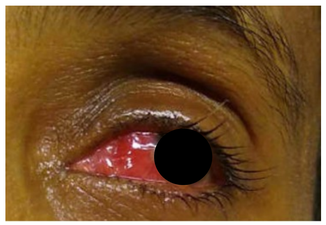
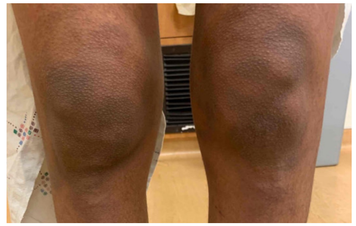
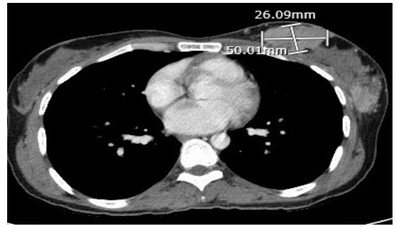
Nov 2019
- Eye inflammation
- Severe eye photosensitivity
- Ophthalmology
  - Keratitis
  - Tobramycin and dexamethasone gtts helped with inflammation and worsened with discontinuation

December 2019
- Polyarthralgia
  - Lower left extremities
  - Back
  - Bilateral wrists and elbows
- Erythema nodosum
  - Painful, bruise-like lesions on bilateral LE
  - Nodule on left elbow
- Night sweats

Jan 2020
- Rheumatology
  - Dx of sarcoidosis
- Treatment
  - Prednisone
  - Azathioprine

Imaging

Discussion

- Initial differential for patient included severe granulomatous mastitis, infection, and sarcoidosis.
- Granulomatous mastitis (GM) is a rare, benign inflammatory breast disease that can present with abscess, erythema nodosum, and arthritis. Eye inflammation or pulmonary nodules are uncommon co-presentations.
- Given her recent travel to a tropic region, infections such as TB, HIV, RPR, and endemic fungal infection was ruled out.
- Sarcoidosis is a systemic disease characterized by immune granulomas in any organ. Most common organ affected:
  - Lungs
  - Intrathoracic lymph nodes
  - Skin
  - Eyes
  - Breast (rare)
- Her polyarthritis, erythema nodosum, and painful/photophobic eye inflammation with CT chest demonstrating >20 pulmonary nodules supports the diagnosis of sarcoidosis.
- Although inflammatory breast presentation is rare in sarcoidosis and her pulmonary nodules are not typical of sarcoidosis, her response to prednisone further supports the diagnosis of sarcoidosis.
- Currently, sarcoidosis is without a cure. Management is aimed to reduce the granulomatous process.

Teaching Points

- Breast and eye inflammation are uncommon co-clinical presentation and should prompt a thorough investigation of rheumatologic etiologies.
- Sarcoidosis has a heterogenous, often insidious presentation that requires clinical assessment of multiple organ system involvement including skin (EN), eye (uveitis, keratoconjunctivitis), and radiographic evidence of pulmonary nodules.

References

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