Atypical Presentation of Invasive Lobular Carcinoma as Periorbital Swelling Despite Negative Mammogram

Sarah A. Shaker, MD[1]. David Ramirez, MD [2].

1. Department of Internal Medicine, The University of Texas Health Science Center McGovern Medical School, Houston, TX
2. Breast Medical Oncology Department, The University of Texas MD Anderson Cancer Center, Houston, TX

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Introduction

- Invasive Lobular Carcinoma (ILC) accounts for approximately 10-15% of invasive breast cancer
- 15-30% of ILC can be mammographically occult due to its unique histologic growth pattern. Characterized by loss of E-cadherin, ILC tends to grow in linear pattern of cells
- ILC mass tend to be low radiographic opacity and similar to normal fibrous breast tissue making it difficult to detect
- ILC shares common metastatic site as IDC such as bone, liver, lung, brain, but can also metastasize to atypical sites such as the gastrointestinal tract, gynecologic organs, peritoneum, and orbit
- ILC, compared to IDC, was found to be more frequently diagnosed at later stages (stage 3 and 4) with more LN involvement

Discussion

- This patient who presented with persistent isolated ocular symptoms was diagnosed with de novo metastatic ILC to the periorbital region and bone
- She was started on letrozole and abemaciclib, tolerated therapy well with no evidence of progression. Periocular soft tissue inflammation improved significantly with initiation of systemic therapy
- Evaluated by radiation oncology, no indication for radiation therapy to the orbit
- Genetic testing was negative for germline pathogenic variants

Case Timeline

~6/2021 SYMPTOMS STARTED
Symptoms included left periorbital swelling, redness, discomfort. Improved at the time with steroid eyedrops.

2022
Symptoms recurred intermittently, not improved with antibiotic or steroid eyedrops

11/17/2022 - SCREENING MAMMOGRAM
Annual screening mammogram with no evidence of Malignancy

1/19/2023 - MRI BRAIN
Findings suggestive of nonspecific edema and enhancement involving intraconal fat bilaterally

2/3/2023- BIOPSY OF LEFT ORBIT SOFT TISSUE
Biopsy elected due to persistent symptoms of the left eye. Pathology with ILC, grade 1, ER+/PR-/HER2-

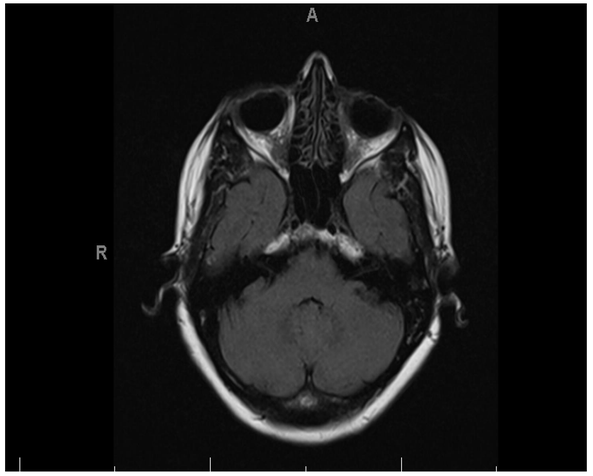
3/6/2023 - INITIAL MD ANDERSON VISIT

3/13/2023 - DIAGNOSTIC MAMMOGRAM + BREAST US, CT CAP, BONE SCAN
No mammographic or sonographic evidence of malignancy. Reccomebd breast MRI. Staging with no evidence of additional metastatic lesions

3/21/2023 MRI BREAST
Two irregular masses in right breast: 1.5 x 0.9 cm and 0.6 x 0.5cm

3/28/2023 FDG PET
Hypermetabolic foci T10, T3, and left scapula

4/5/2023 BREAST BIOPSY
Both R breast mass biopsy with ILC, classic type, grade 1, ER+/PR-/HER2-



MRI Brain T2 Weighted-Imaged
Nonspecific edema and enhancement involving the intraconal fat present. This encircles the inferior, lateral, and superior rectus bilaterally.



MRI Breast
Irregular enhancing mass in the right central breast measuring 1.5 x 0.9 x 0.6cm. This corresponding mass was mammographically and sonographically occult.

Conclusion

- This case demonstrates the indolent and atypical presentation of ILC which can lead to delayed diagnosis especially in the setting of negative screening mammograms and no breast symptoms
- Highlights the use of MRI for detection of primary breast cancer in the setting of negative mammogram, given the high rates of false negative for ILC
- ILC can present atypically with periorbital metastasis as the first and only clinical sign of breast cancer
- Persistent and unexplained orbital swelling should prompt evaluation for possible biopsy

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