

Orbital metastases cause minimal visual symptoms, however, as the eye lies within the orbit which is a closed anatomical funnel, symptoms can include exophthalmos or globe displacement. Acute exacerbations, such as pain and exophthalmos can effectively be treated with radiotherapy or systemic treatment which leads to symptomatic improvement, as was the case in this patient.

She successfully tolerated six cycles of single-agent Epirubicin followed by Letrozole. The orbital lesion completely resolved with this treatment (Fig. 3). Forty-four months on she has had one peritoneal relapse successfully treated with second-line chemotherapy and remains stable and well.

## Invasive Carcinoma with Acinic Cell-Like Features of the Breast

Nicole Winkler, MD,\* Glen Morrell, MD, PhD,\* and Rachel E. Factor, MD<sup>†</sup>

\*Department of Radiology, University of Utah, Salt Lake City, Utah; <sup>†</sup>Department of Pathology, University of Utah, Salt Lake City, Utah

**B**reast MRI was performed on a 56-year-old female for the diagnosis of ductal carcinoma in situ after lumpectomy revealed close surgical margins (<1 mm) to determine extent of disease. An unsuspected abnormality in the contralateral (right) breast was present demonstrated as heterogeneous segmental non mass-like enhancement (NMLE) extending toward the nipple in a triangular configuration measuring 4.7 × 4.0 × 2.9 cm with plateau enhancement kinetics (Fig. 1). A targeted ultrasound was performed showing two adjacent hypoechoic masses with irregular margins in the location of abnormality on MRI (Fig. 2). Ultrasound guided biopsy revealed invasive ductal carcinoma (ER/PR/HER2 negative).

Due to the close proximity of tumor to the chest wall and size of NMLE by imaging, neoadjuvant chemotherapy consisting of four cycles of dose dense Adriamycin followed by four cycles of dose dense Taxol was administered. Follow-up MRI performed after completion of chemotherapy showed no significant change in enhancement, size, or signal features of the large lesion in the right breast.

Bilateral mastectomy with sentinel lymph node biopsy was performed 5 months after the initial diag-

nosis. The tumor from the prechemotherapy core biopsy specimen was histologically in keeping with invasive ductal carcinoma, not otherwise specified with some eosinophilic granules. The tumor from the post-chemotherapy mastectomy specimen showed small acini and ducts arranged in a nested pattern lined by neoplastic cells containing abundant eosinophilic granules which looked more salivary-gland-like and lacked definitive features of malignancy until the lack of myoepithelial cells was established by immunohistochemistry staining (Fig. 3). The lack of chemotherapeutic response as noted by MR imaging was essential to the pathological work-up of the tumor prompting further pathological review. The mastectomy specimen and core biopsies were reviewed by several pathologists with consensus upon invasive ductal carcinoma with features simulating acinic cell carcinoma. The sentinel lymph nodes were negative for metastatic disease. She is currently without recurrence (2 years) and being treated with hormonal therapy alone.

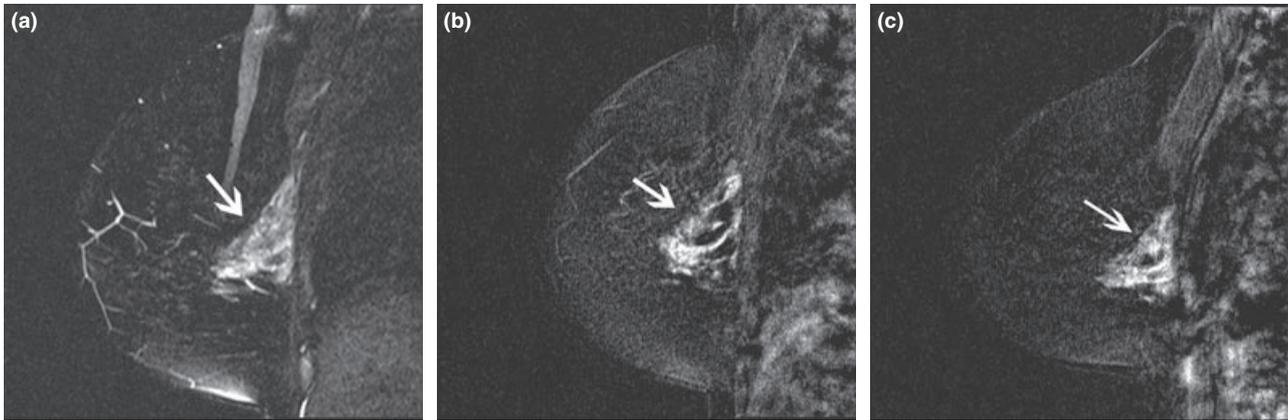
Acinic cell carcinoma of the breast is a rare salivary gland-like tumor of low malignant potential with only 18 cases reported in the pathology literature. The presence of zymogen-type granules within the cytoplasm of the constituent cells has been reported to be the signature of acinic cell differentiation.

Most described cases in the literature have had relatively good prognosis, however, there is a case report

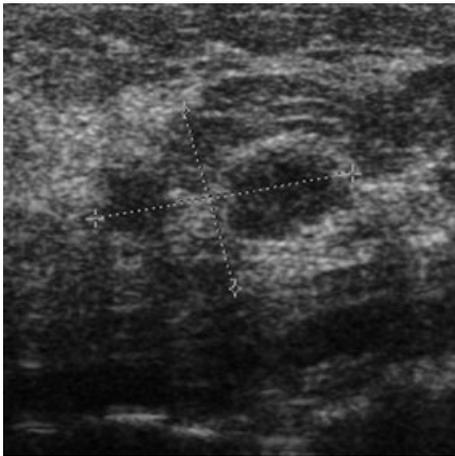
Address correspondence and reprint requests to: Nicole Winkler, Department of Radiology, University of Utah, 30 North 1900 East #1A071, Salt Lake City, Utah 84132, USA, or e-mail: Nicole.winkler@hsc.utah.edu

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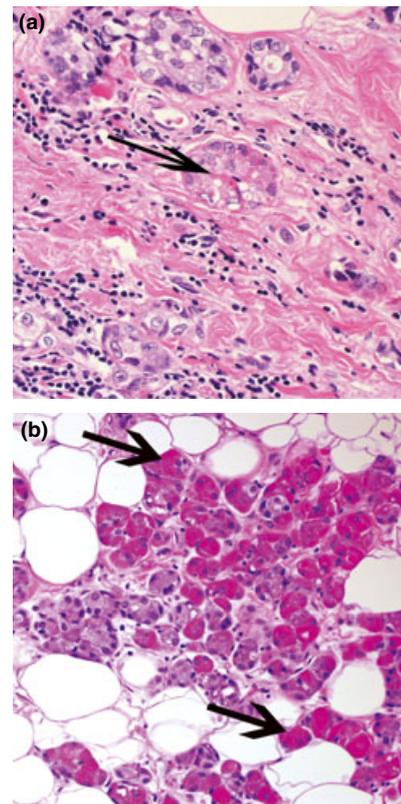


**Figure 1.** Pre and post chemotherapy MR of the right breast. (a) Prechemotherapy sagittal T2FS shows nonmasslike segmental T2 hyperintense signal in a triangular configuration. (b) Prechemotherapy sagittal subtracted T1FS postcontrast image shows corresponding non-masslike segmental heterogeneous enhancement extending toward the nipple. (c) Post-chemotherapy Subtracted T1FS postcontrast shows unchanged enhancement and lesion size.



**Figure 2.** Targeted ultrasound shows two adjacent round and oval hypoechoic masses with irregular margins corresponding to site of enhancement on MR.

of a patient that developed extensive liver metastases and died 3 years after initial diagnosis. The therapeutic implications of tumors containing cells with eosinophilic granules remain unclear and the presence of eosinophilic granules alone should not be used to definitively diagnose acinar differentiation.



**Figure 3.** Pre and post-treatment H&E specimens at 40 $\times$ . (a) Pre-chemotherapy core biopsy showing invasive ductal carcinoma with rare foci of ductal cells containing eosinophilic granules (arrow). (b) Post-chemotherapy specimen from mastectomy shows ductal cells that simulate salivary gland tissue with intense basophilic and eosinophilic granules.