A 69-year-old Caucasian woman presented to her plastic surgeon in 2014 with a several-month history of painful swelling and effusion surrounding her left breast implant. Her medical history was significant for stage II estrogen receptor–positive breast cancer requiring mastectomy and implant placement in 1993, followed by chemotherapy and hormonal treatment with tamoxifen. The patient elected for left implant removal and capsulectomy, as well as prophylactic right-sided mastectomy to treat the recent effusion. Aspiration of the peri-implant fluid revealed atypical CD30-positive lymphocytes suggestive of anaplastic large cell lymphoma. Microscopic examination of the left breast capsule demonstrated similar-appearing ALK-negative, CD30-positive cells that did not penetrate the capsular parenchyma. Deeper sections toward adipose tissue revealed a separate dense infiltrate of small lymphoid cells that were immunoreactive for CD45/LCA and CD20 while negative for CD3, CD5, CD10, CD30, CD43, and CD68, consistent with extranodal marginal zone lymphoma. A similar B-cell population was also identified in a right axillary lymph node excised during the patient’s right-sided prophylactic mastectomy. Subsequent bone marrow biopsy demonstrated 50% to 60% involvement by the marginal zone lymphoma, with no T-cell process identified. The patient was referred to hematology/oncology and was recommended no additional therapy for the anaplastic large cell lymphoma. However, as treatment for the marginal zone lymphoma, she received two doses of rituximab-bendamustine, followed by a 4-week induction course of single-agent rituximab, which went spontaneous regression, consistent with the notion that BI-ALCL is a true lymphoma rather than an LPD.

Analysis of Sequential Specimens Shows That Breast Implant–Associated Anaplastic Large Cell Lymphoma Behaves as a Lymphoma Rather Than as a Lymphoproliferative Disorder

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Objectives: Breast implant–associated anaplastic large cell lymphoma (BI-ALCL) is a provisional entity accepted in the revised WHO classification. Some authors have suggested that BI-ALCL is similar to CD30-positive lymphoproliferative disorders (LPDs), in that it may regress spontaneously. To better understand the natural history of this disease, we identified patients with BI-ALCL who had previous fine-needle aspiration (FNA) or capsular biopsies before a definitive diagnosis was established.

Methods: We searched our institutional database for patients diagnosed with BI-ALCL who had a previous pathologic specimen to compare with their definitive diagnostic material.

Results: We identified 11 patients with BI-ALCL who had FNA or capsular biopsies ≥3 months before a definitive diagnosis was established. The previous FNA or capsular biopsies were performed 0.42 to 3 years prior to the definitive diagnostic procedures. The comparison between serial specimens showed persistent disease in seven patients and progression in four patients. Upon diagnosis, the patients had implant removal with complete surgical capsulectomy, and five also received chemotherapy and/or radiation treatments. The median time from diagnosis to last follow-up was 4 years (range, 2–16 years). Ten patients achieved complete remission, and one patient is alive with disease.

Conclusion: Follow-up of 11 patients with BI-ALCL with sequential biopsies demonstrates persistence or progression of disease. We did not observe patients who underwent spontaneous regression, consistent with the notion that BI-ALCL is a true lymphoma rather than an LPD.

Carcinocythemia: A Rare Entity Becoming More Common? A 3-Year, Single-Institution Series of Seven Cases and Literature Review

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Objectives: Carcinocythemia is a rare phenomenon defined as morphologically identifiable, circulating tumor cells (CTCs) in the peripheral blood. The presence of CTCs can cause diagnostic challenges for pathologists interpreting peripheral blood smears, as these atypical cells can in some instances overlap morphologically and even immunophenotypically with myeloblasts and lead to a mistaken diagnosis of acute leukemia.

Methods: A retrospective study was conducted of all confirmed carcinocythemia cases over a 3-year period at our institution. Carcinocythemia was defined as morphologically identifiable CTCs in the blood. Blood smears from seven carcinocythemia cases were identified and reviewed. Associated clinicopathologic findings were described and compared to the literature. When available, bone marrows were also examined.