



Chronic Lymphocytic Leukemia Presenting As a Solitary Breast Mass

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Abstract

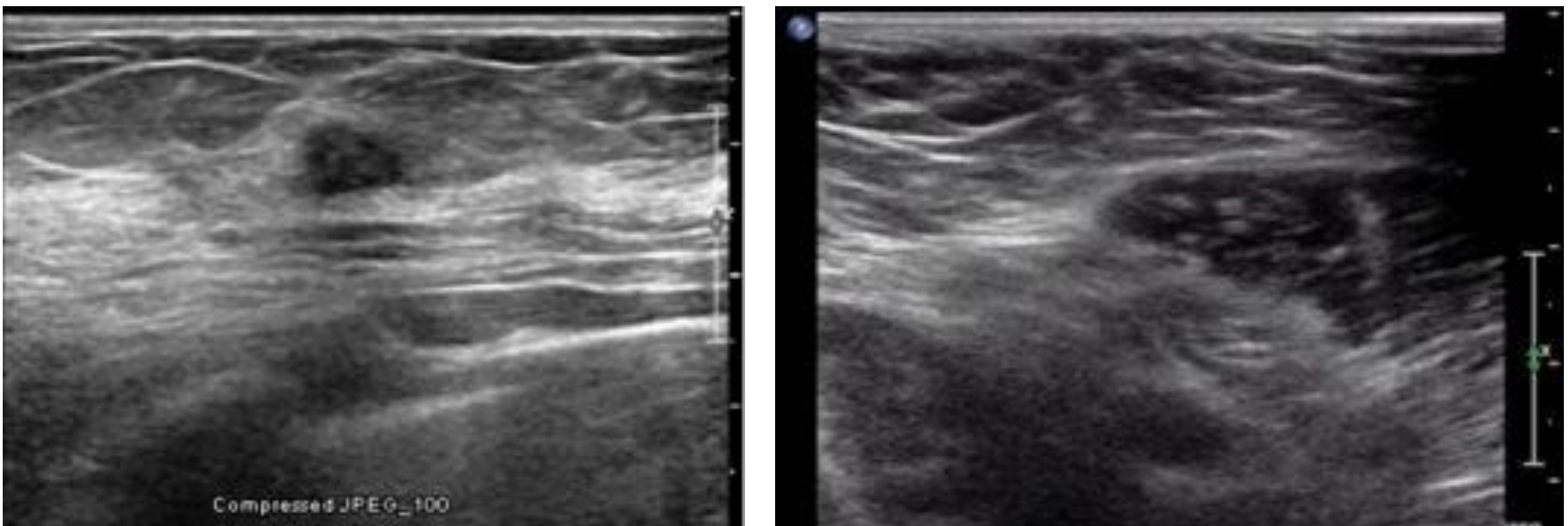
Breast lymphoma (BL) represents around 0.5% of malignant breast neoplasms. Diffuse large B-cell lymphoma (DLBCL) and follicular lymphoma are the predominant subtypes.¹

Background

An 80-year-old woman with a past medical history of hypertension found to have a right breast mass on a screening mammogram. She remained asymptomatic.

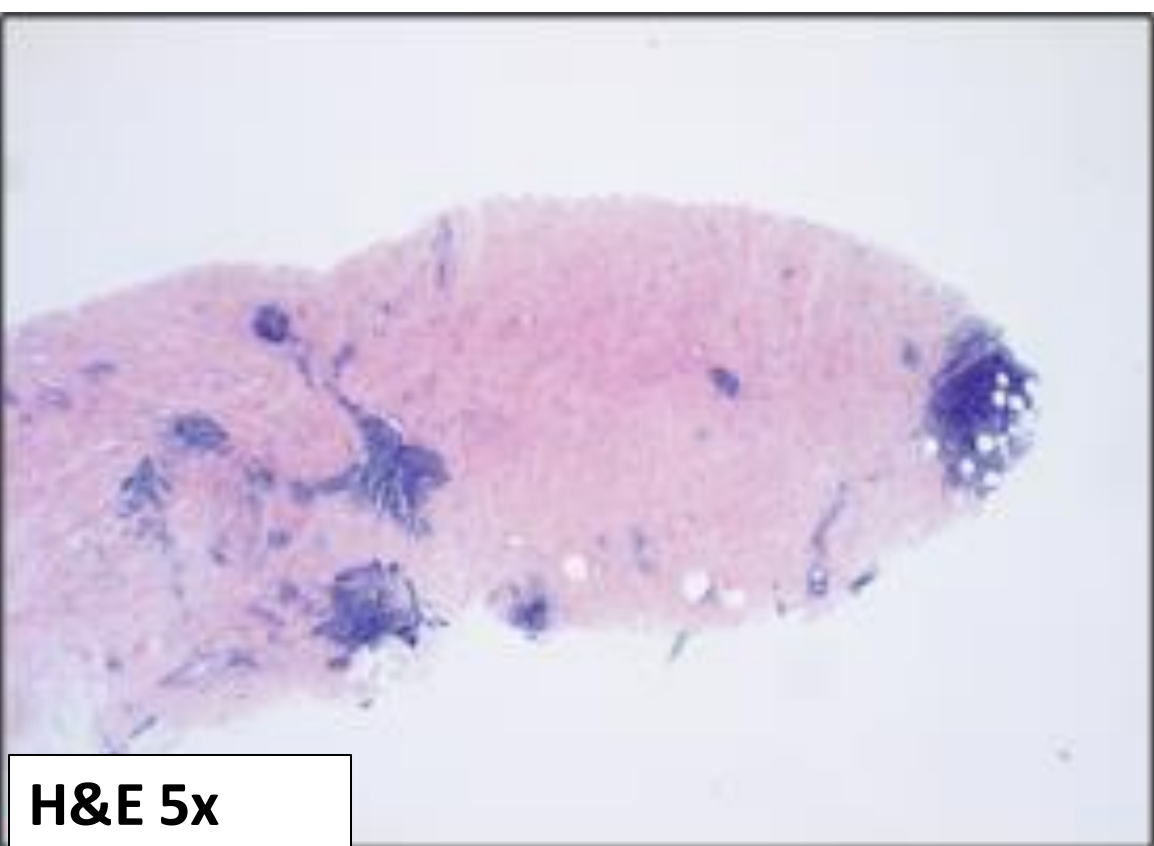
The physical exam did not reveal lymphadenopathy nor splenomegaly. Peripheral blood smear showed absolute lymphocytosis of 69% with a normal total white blood cell count of 8.1 without dysplastic cells, blasts, anemia, or thrombocytopenia.

Imaging

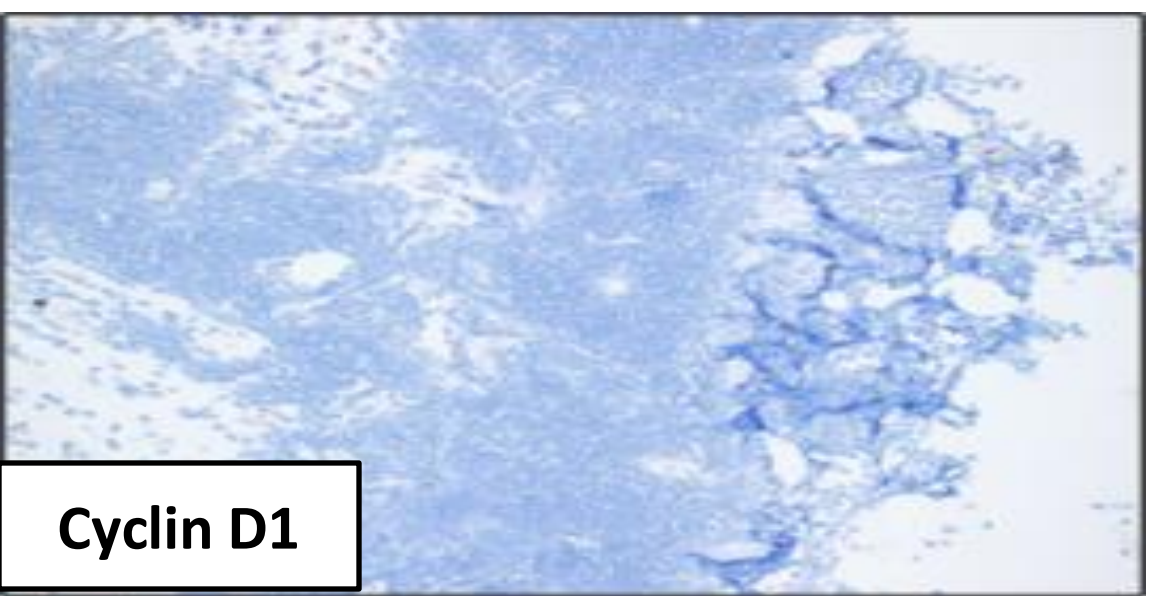
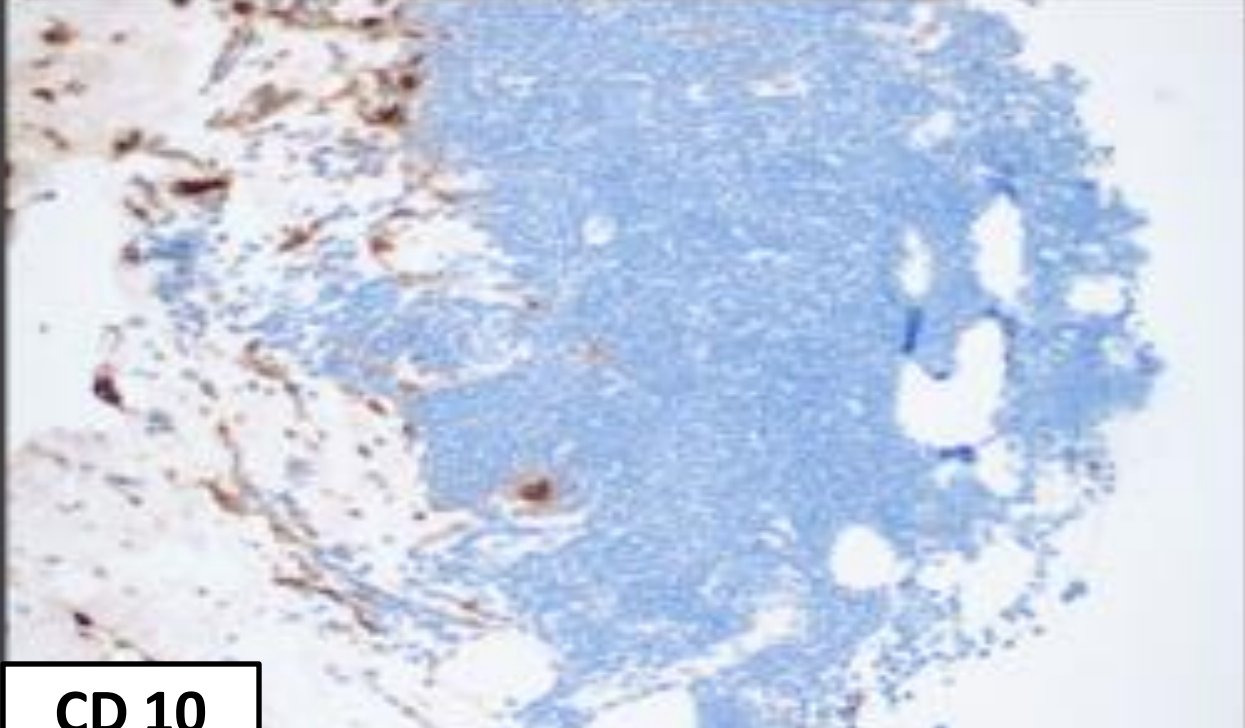
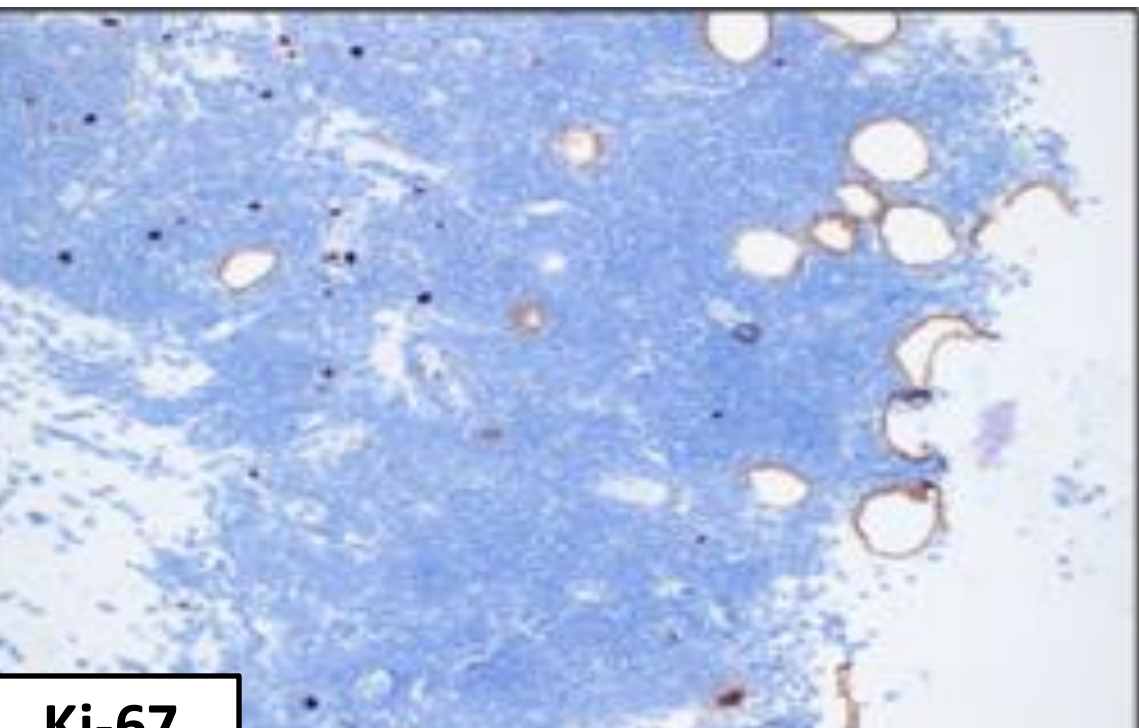
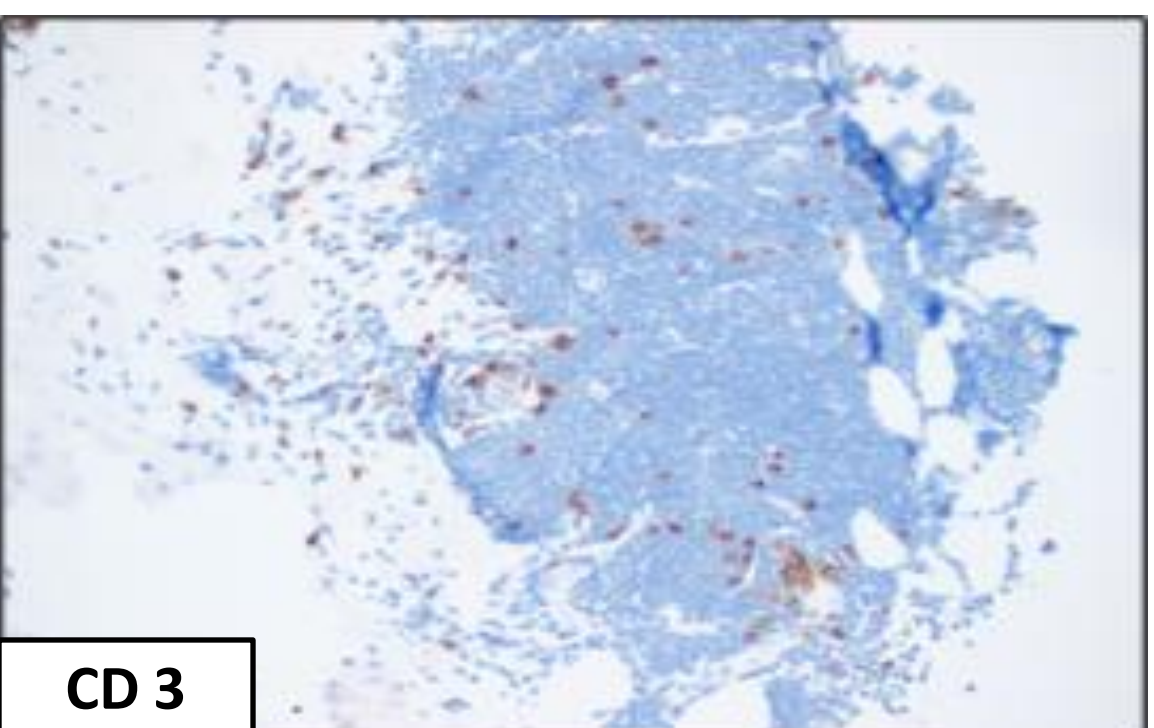
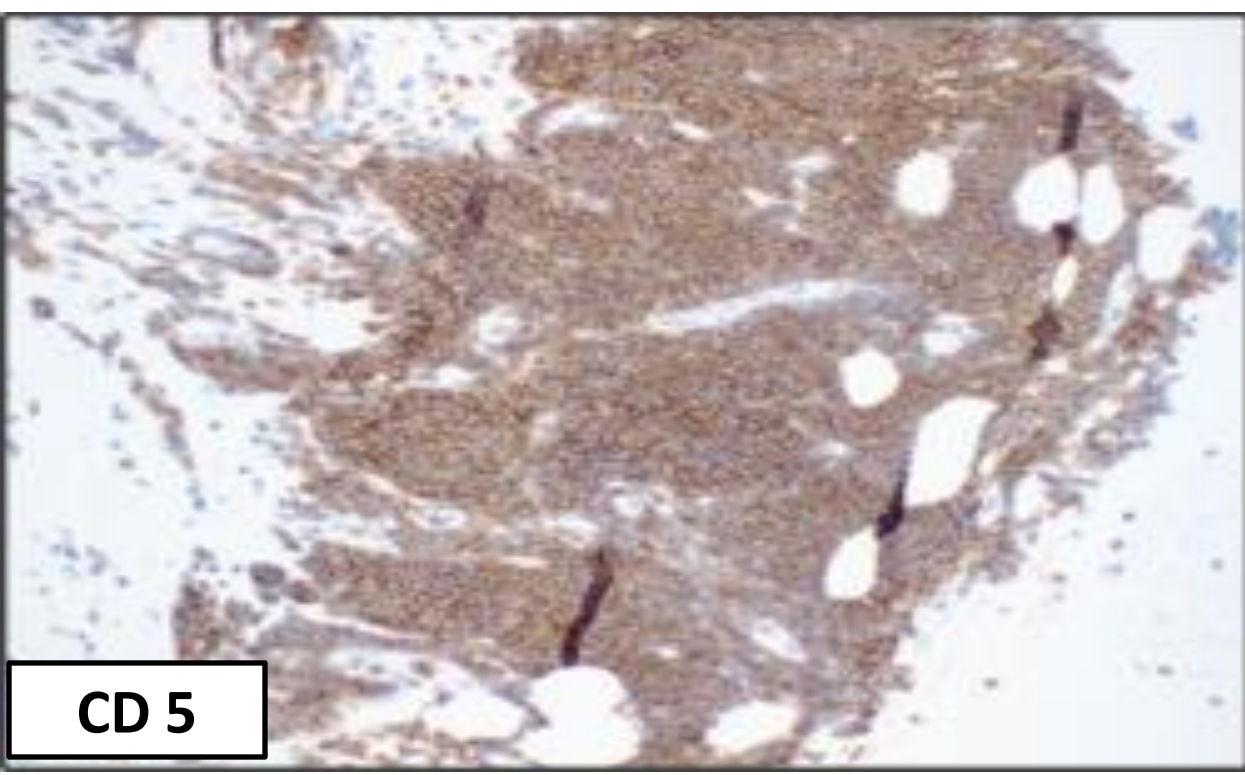
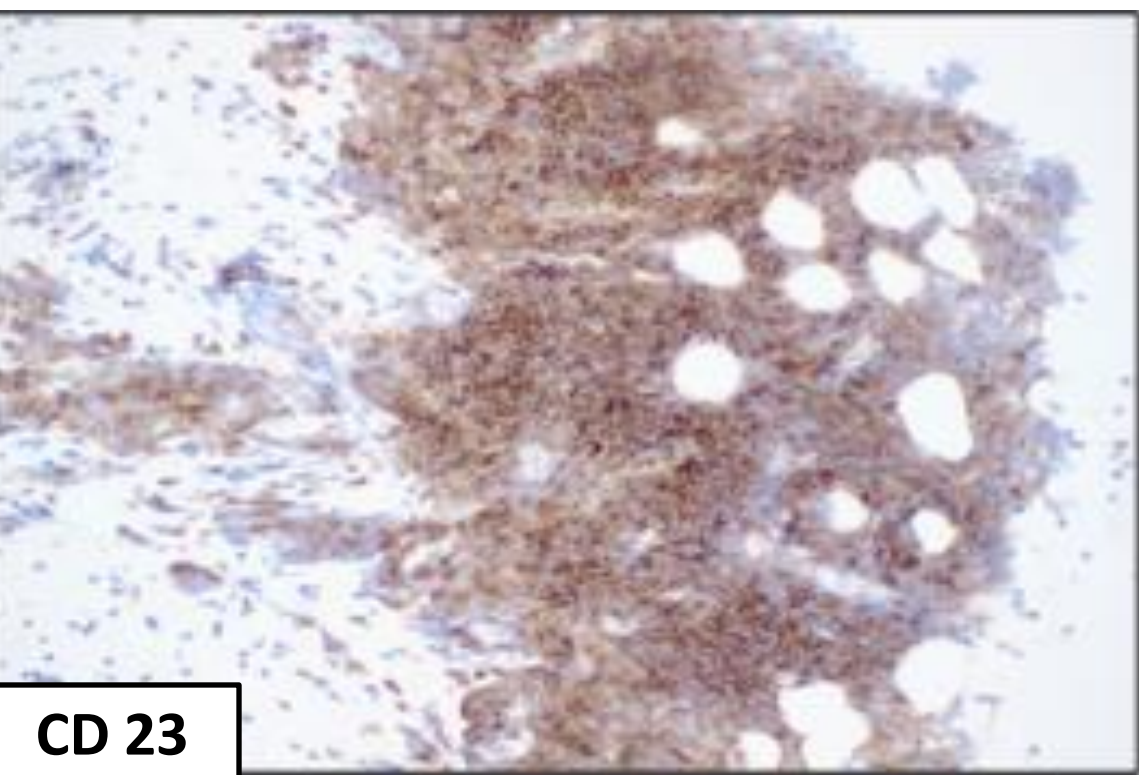
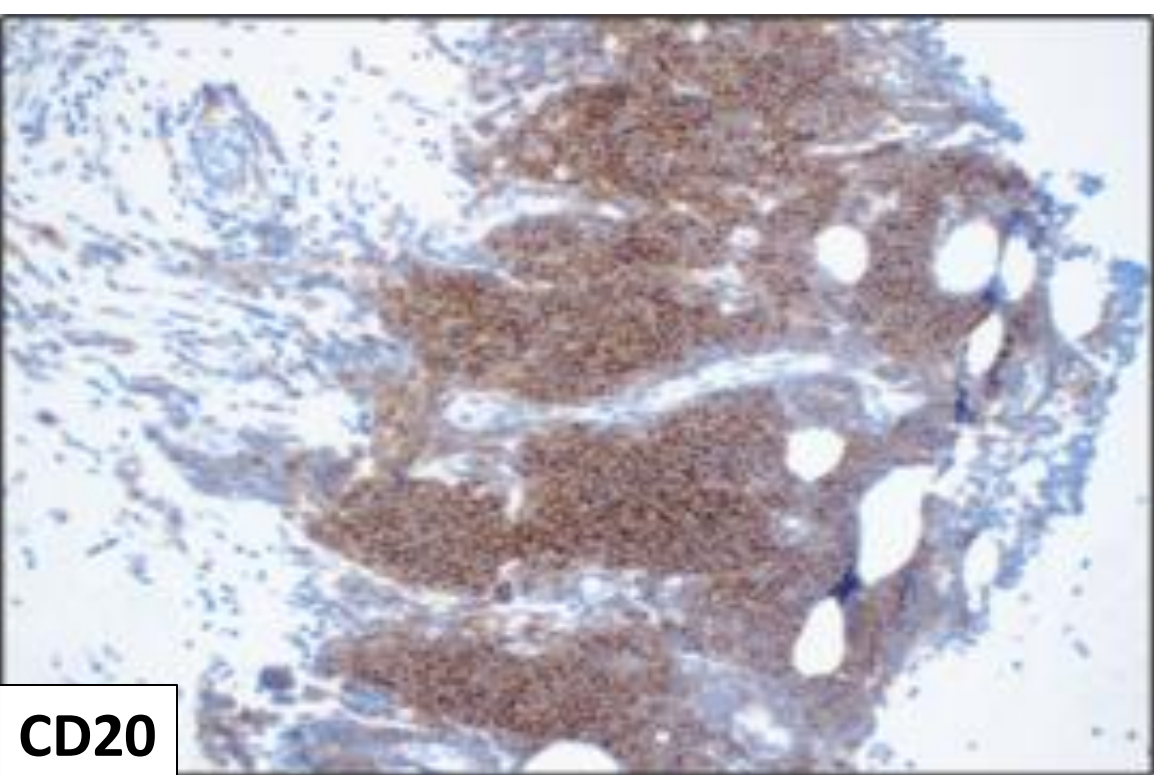
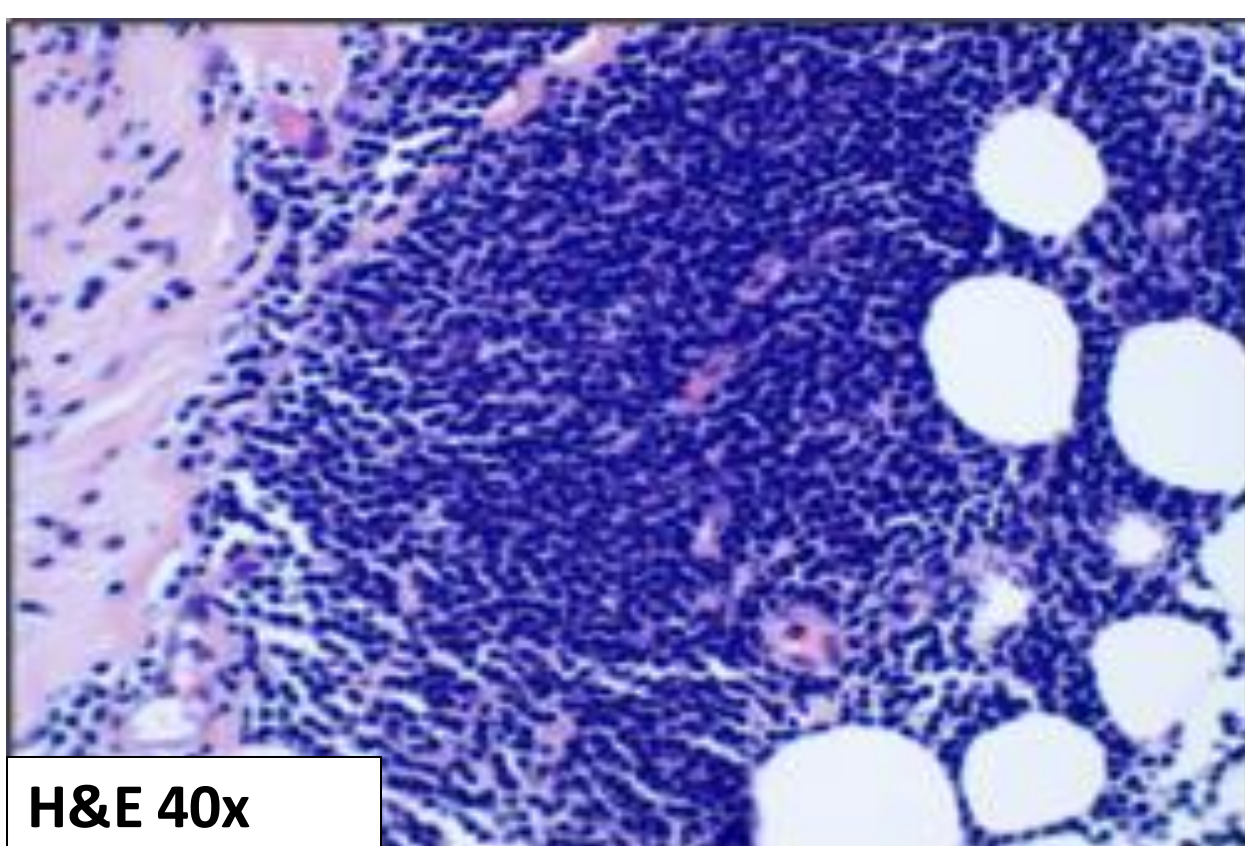
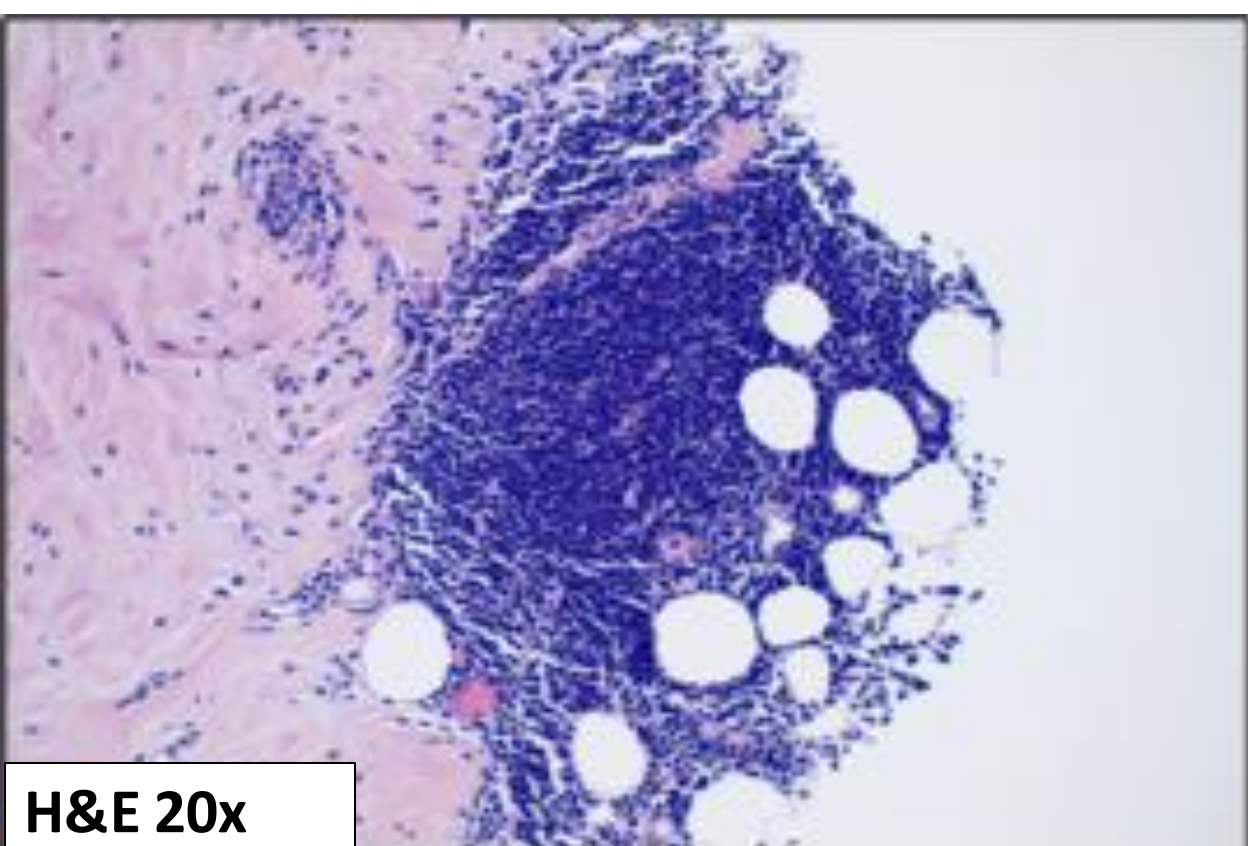


Right breast ultrasound showing irregular hypoechoic mass measuring 0.7 x 0.5 x 0.5 cm at the 11:00 axis, approximately 5 cm from the nipple. Positron Emission Tomography (PET) scan showed uptake within right breast only - no other active uptake.

Result of biopsy of the right breast mass



The breast biopsy exhibit fibrous stroma and a few breast ducts with dense lymphocytic infiltrate surrounding small blood vessels and breast ducts in some fragments. The infiltrate consists of small round lymphocytes with densely clumped chromatin and minimal cytoplasm.



The morphologic and immunophenotypic findings indicate an atypical B-lymphocytic infiltrate involving the breast parenchyma. Based on the cytologic features of the lymphocytes, pattern of infiltration, and combination of antigens expressed by the atypical lymphocytes, the findings are most consistent with low-grade B-cell lymphoproliferative disorder: chronic lymphocytic leukemia (CLL)/ Small Lymphocytic lymphoma (SLL). Bone marrow biopsy showed involvement by chronic lymphocytic leukemia (50-60% of cellularity).

Management

Close follow up and observation.

Discussion

SLL and CLL are subtypes of non-Hodgkin's lymphoma originating from B-cell lineage. While there have been reported cases of CLL and SLL manifesting as BL, the incidence remains very low and limited to case reports. Moreover, they have been reported to be found concomitantly with breast carcinoma.²

Most of the BL are asymptomatic when found incidentally on screening imaging as in our patient. Hypoechoic round mass is the most common reported appearance. There are no current established guidelines for the treatment of BL.

In our patient, we followed the recommendations for managing CLL.

Not all breast masses are adenocarcinoma. It is critical to keep in the differential diagnosis lymphoproliferative disorders, melanoma, lung cancer, and gynecological malignancies.

References

1. Primary and secondary breast lymphoma: prevalence, clinical signs and radiological features. Br J Radiol.
2. Synchronous small lymphocytic lymphoma and metastatic breast carcinoma in axillary lymph nodes: Preservation of follicular architecture only in the portions of affected lymph nodes involved by metastatic carcinoma. *The breast journal*