

## Case Study: Marginal Lymphoma of the Breast

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### Keywords

Marginal zone lymphoma, Breast lymphoma, Extranodal lymphoma, Primary breast lymphoma, Non-Hodgkin's lymphoma.

## INTRODUCTION

This is a 77-year-old post-menopausal female with a history of secondary polycythemia who presented for initial hematologic evaluation. The patient was noted to be a long-term smoker and screening CT of the lung was recommended.

The CT of the chest noted emphysematous changes with possible interstitial component with several pulmonary nodules including a 1.1 cm solid nodule in the right lower lobe abutting the fissure. An enlarged precarinal lymph node was also noted. PET imaging was recommended which revealed an aneurysmal dilatation of the descending thoracic aorta measuring up to 3 cm. In addition, a breast lesion measuring up to 2.3 cm was noted. The patient had never undergone screening mammography.

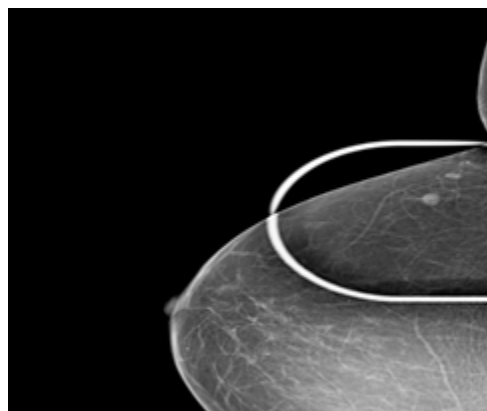
Mammography was performed which revealed a left irregular density (Image 1). PET imaging confirmed a hypermetabolic left breast nodule highly suspicious for malignancy (Image 2).

Surgical evaluation was recommended. She underwent a breast core biopsy with pathology revealing Marginal Cell Lymphoma.

Pathology Review: H&E stained sections with diffuse proliferation of predominantly small lymphocytes with moderate amount of clear cytoplasm associated with collagenized stromal fibrosis (Image 3). Additional staining was positive for PAX5, CD20, and BCL2 (Image 4).

The staining pattern in conjunction with morphology was consistent with low-grade B cell lymphoma with marginal zone differentiation. Peripheral blood studies did not reveal any diagnostic immunophenotypic abnormalities. Primary breast lymphoma by definition is localized to one or both of the breasts with or without involvement of regional lymph nodes and with no other extra mammary site involvement. Primary breast lymphomas constitute less than 1% of all NHL, 1.7–2.2% of all extra nodal NHL and 0.04–0.5% of all malignant neoplasms of the breast. Marginal zone lymphoma comprises approximately 9% of all primary breast lymphomas. Despite being the second most common variant, it is exceedingly rare in occurrence. Diagnosis of marginal zone lymphoma is based on cytological and histopathologic features [1-4].

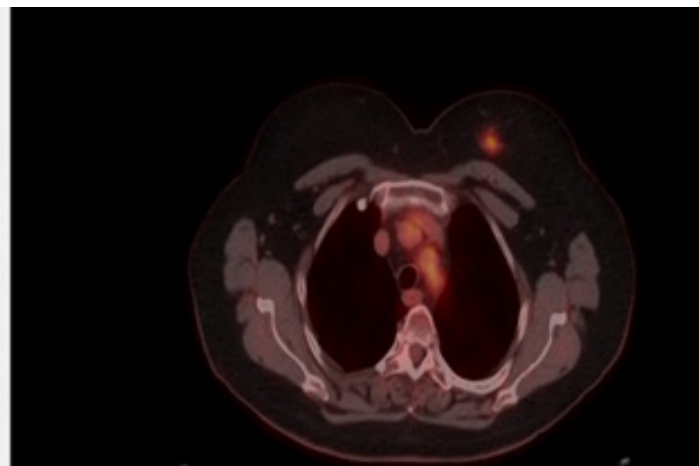
Marginal cell lymphoma of the breast is a very rare indolent lymphoma and close follow up was recommended.



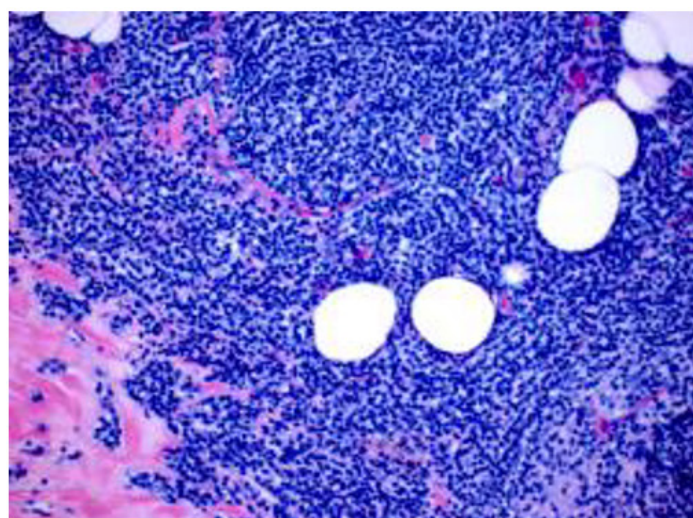
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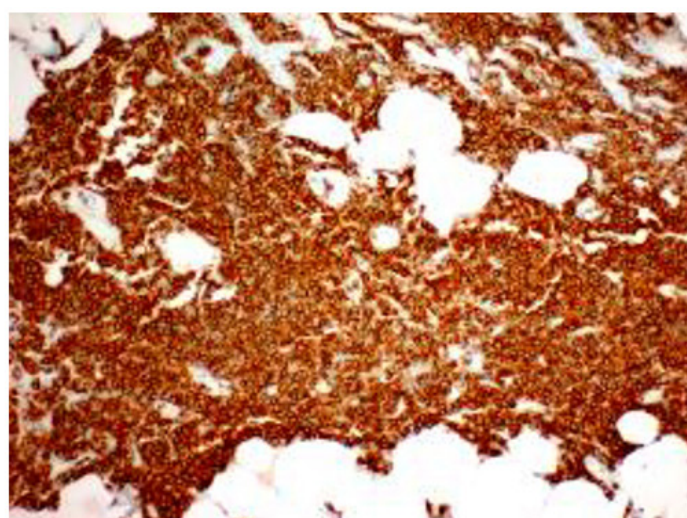
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