



## Introduction

- Primary thyroid lymphomas (PTL) are uncommon lymphomas with diffuse large B-cell lymphomas (DLBCL) being the most common subtype<sup>1</sup>.
- PTLs account for only a small fraction of all extra-nodal lymphomas and are associated with Hashimoto's thyroiditis<sup>2</sup>.
- Due to risk for airway obstruction, early detection is incredibly important for patient outcomes.
- However, since PTLs are rare, detection can be difficult, thus urging the need for more effective and early diagnosis.

## Images



## Case Background

- An 84-year-old female with a history of breast cancer and Hashimoto's thyroiditis presented to outpatient ENT for a rapidly enlarging goiter over two weeks.
- Initial fine-needle aspiration (FNA) demonstrated reactive lymph node pathology. Initial CT of the neck demonstrated a left thyroid nodule of 4.4 x 3.7 cm.
- At ENT visit, her TSH level was 0.7 mU/L, Free T4 level was 1.88 ng/dL, T3 level was 87 ng/dL, and anti-thyroid peroxidase antibody level was elevated at 48 ng/dL. US-guided core biopsy and FNA with cytology was performed and revealed findings concerning for DLBCL.
- Ten days later, the patient endorsed worsening hoarseness and dysphagia requiring admission for possible airway obstruction. Repeat CT scan of the neck revealed the mass had grown to 3.9 cm x 5.0 cm.
- Bone marrow biopsy demonstrated normocellular marrow with maturing trilineage hematopoiesis without any morphologic or immunophenotypic evidence of lymphoma. The patient underwent CT scans of neck, chest, abdomen, and pelvis which revealed that DLBCL of the thyroid nodule had advanced to stage III.
- For treatment, she was started on dexamethasone for symptom control, and she began the first of six cycles of R-CVP chemotherapy including rituximab, cyclophosphamide, vincristine, and prednisone, with a goal of complete response to therapy.

## Significance

- This case illustrates the link between a history of chronic Hashimoto's thyroiditis to primary thyroid lymphomas and the importance of nodule cytology.
- Primary thyroid lymphomas account for approximately 2% of all extra-nodal lymphomas.<sup>3</sup> Therefore, it is crucial to recognize primary thyroid lymphomas as a cause of malignant thyroid nodules, with DLBCL being the most common.<sup>4</sup>
- Other subtypes can exist including follicular lymphoma, mucosa-associated lymphoid tissue (MALT) lymphoma, small lymphocytic lymphoma, and T-cell lymphoma.<sup>5</sup>
- In the elderly patient with Hashimoto's thyroiditis, one should consider PTL on the differential and quickly link patient to care due to risk of rapid airway compression. Thus, careful identification of risk factors, history-taking, imaging, and histopathology is vital to making prompt diagnosis and initiating early treatment to prevent metastatic disease and airway obstruction.

## References

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