A Lump by Any Other Name: A Case of Primary Diffuse Large B-Cell Lymphoma of the Thyroid Gland
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Introduction
Primary thyroid diffuse large B cell lymphoma (DLBCL) is a rare form of extranodal lymphoma responsible for nearly 1-5 percent of thyroid malignancies. Many patients diagnosed with primary thyroid lymphoma carry a concomitant diagnosis of hypothyroidism. This report will discuss the case of a female patient who presented with a history of hypothyroidism and an enlarging neck mass that was eventually diagnosed as primary thyroid DLBCL.

Case Presentation
Patient is a 49-year-old female with a past medical history of hypothyroidism who presented to the endocrinology office for evaluation of a neck mass. A thyroid ultrasound in 2020 had shown significantly enlarged and diffusely heterogenous thyroid gland compatible with diffuse thyroid goiter without nodules. Her neck swelling worsened and therefore a thyroid ultrasound was repeated and showed a large hypoechoic nodule in the left thyroid gland. She had no symptoms such as night sweats, fevers, or weight loss. A computed tomography (CT) scan of the neck with contrast was obtained on 7/20/2020 showing a markedly enlarged thyroid gland with multiple >1 cm thyroid nodules, with a suspected exophytic extension nodule medial to the left lobe. Multiple adenopathy was present with an enlarged left lower cervical lymph node and a right-sided level 4 lymph node concerning for thyroid malignancy with local metastatic disease. She underwent a fine needle aspiration (FNA) with flow cytometry of the lymph node on 9/2/2020 which was benign. Her goiter continued to increase in size and she was referred to endocrine surgery for fine needle core biopsy of the left thyroid nodule which was favorable for DLBCL with a germinal center phenotype on 4/5/2021. Flow cytometry was positive for CD-10 mature B cells. FNA biopsy of the left lower cervical lymph node showed polymorphic lymphocytes and rare macrophages. She was staged IIE. She underwent 4 cycles of rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone (R-CHOP) and received 18 rounds of consolidation radiation after completion of chemotherapy. She had near-complete response to treatment and is now monitored through routine follow-ups.

Discussion
Primary thyroid lymphoma is a rare condition characterized as a lymphomatous process involving the thyroid gland without any contiguous spread or distant metastasis at the time of diagnosis. It comprises nearly 1% to 5% of all thyroid malignancies and is more common in women. DLBCL is the most common histiotype and accounts for 50% to 70% of all cases. Patients may notice a unilateral or bilateral rapidly enlarging neck mass with compressive symptoms, but B symptoms are less common. Nearly 30% to 40% of patients carry a diagnosis of hypothyroidism at the time of diagnosis as the lymphomatous process replaces the normal thyroid parenchyma. Diagnosis is made usually via core needle biopsy and flow cytometry since FNA biopsy is frequently inconclusive. Treatment is with chemotherapy, usually R-CHOP, and radiation therapy with an overall 5-year prognosis of 34.5%. Surgical decompression may be necessary if compressive symptoms are present. While this is a rare disease, providers should be cognizant of DBLCL especially when faced with a presentation such as the one summarized in this report.
References