lymphadenopathy in the bilateral neck and mediastinum, but no distant metastases were identified. She then underwent total thyroidectomy with extensive dissection of the bilateral neck; pathology revealed one positive lymph node. On endobronchial biopsy, the mediastinal lymph nodes were benign. Immunohistochemistry revealed PD-L1 expression and gene assay showed an NSD3-NUTM1 fusion of the NUT gene. Oncology advised systemic treatment with carboplatin/taxol and considered Pembrolizimab, an anti-PD-L1 immunotherapy agent.

Discussion
The prognosis of NMC is less than 1 year and only 20-30 cases are reported per year in the USA. NMC is a poorly differentiated subtype of squamous carcinoma characterized by a chromosomal rearrangement of the NUT gene, involving molecular translocation with the BRD4 gene in 70% of cases. It remains challenging to treat NMC, as metastasis is present on diagnosis in most cases and there is currently no established approach. In a report of 40 patients from the NUT Midline Carcinoma Registry, surgical resection correlated with significantly improved survival in contrast to initial radiation or chemotherapy. Recently, BET domain inhibitors have emerged as a promising class of targeted agents for tumors with BRD4-NUT fusions. Their efficacy is unknown for other NUTM1 fusions. Both BET domain and histone deacetylase inhibitors are in clinical trials, and next-generation BET and CDK9 inhibitors have shown preclinical activity. Our patient likely benefited from early intervention with surgical therapy. Her PET scan findings suggest that re-sampling her mediastinal tissue would be prudent. Given her lack of BDR4-NUTM1 fusion, it is unknown if she would benefit from BET inhibitor.

Conclusion
NMC is an underrepresented cancer that warrants further investigation into treatment modalities and novel immunotherapies.

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Thyroid

THYROID DISORDERS CASE REPORTS II

Myxedema Coma: A Fatal Diagnosis in a Patient with No Known History of Hypothyroidism
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Myxedema coma is a rare yet commonly missed diagnosis. Early detection is key to management as this diagnosis carries a high mortality rate.

We report a case of a 108-year-old female with a past medical history of CKD stage 3, hypertension, CHF, and atrial fibrillation who was brought to the emergency department (ED) by her grandson for seizures. The patient has no history of seizures, hypothyroidism (previous TSH 6 years back was 2.29 micro IU/mL), diabetes, or previous radiation exposure. The family noticed the first seizure 8 hours prior to admission with eyes rolling backward, shaking for 1 minute and slurred speech upon awakening. She had 2 other seizure episodes prior to arrival to the ED. Vitals in the ED showed a temperature of 31.7°C, BP of 85/50, HR of 35, RR of 8, and SpO2 was 83% on room air. Given the patient’s age, code status was changed to DNR/DNI. Blood work in the ED revealed a sodium of 146 mEq/L (136-145), anion gap of 25, Creatinine of 2.67 mg/dL (last creatinine prior to this admission was 1.65 mg/dL), and a troponin of 0.04 ng/mL (<0.04). Thyroid function testing was not done in the ED. Home medications included Lasix, digoxin, isosorbide mononitrate, and atenolol. The patient was admitted to the medical floor for workup of bradycardia and was being worked up for beta-blocker/digoxin toxicity but continued to be bradycardic despite atropine. She became hypoglycemic to 37 mg/dL. The patient was admitted to the CCU at night on day 1 of admission and was started on dopamine and glucagon drips. Sulfonylurea screen was negative, and the patient did not have further hypoglycemic episodes. While in the CCU, blood work showed a lactate of 10 mEq/L (0.4-2.0), TSH of 21.03 micro IU/mL (0.45-5.33), free T4 of 0.61 ng/dL (0.70-1.70), and total T3 71 ng/dL (87-178). Myxedema score was >130. Digoxin level came back elevated at 4.5 ng/ml (0.9-2.0). Cosyntropin stimulation testing was negative for adrenal insufficiency and thus the patient was not started on steroids. Urinalysis revealed pyuria with blood, but no urine cultures were done. Blood cultures were negative. The patient was given levophthyroxine 200 mcg IV in the AM on Day 2 of admission and was started on antibiotics with azithromycin, cefepime, vancomycin, and metronidazole given concern for sepsis. Hypoglycemia resolved and glucagon was discontinued. In the evening of Day 2 of admission, despite being on a dopamine drip, the patient became increasingly bradycardic, hypotensive, and short of breath. She was initially stabilized after a dose of bicar, atropine, and epinephrine. However, her BP and respiratory status continued to decline, and the patient passed away.

In conclusion, myxedema coma should be suspected in patients presenting with typical symptoms and should be tested for on presentation even when no prior history of hypothyroidism exists.