

Introduction

Hashimoto's thyroiditis, caused by anti-thyroid antibodies that attack thyroid tissue, is the most common cause of hypothyroidism in developed countries.¹ This autoimmune condition occurs at least ten-times more commonly in females than males.² The typical patient is a woman between the ages of 30 and 60 presenting with fatigue, weight gain, and constipation. This case covers a patient with an unusual demographic and symptomatology Hashimoto's thyroiditis in order to aid in identifying all presentations of this disease.

Case Summary

The patient is a 30-year-old male with no significant past medical history who presented with a pruritic rash on his back and swelling in both hands. The rash had begun one week ago and had been getting progressively worse, particularly when pressure was placed on that body region. He denied any change in soaps, detergents, or outdoor exposures. He had no other associated symptoms.

On physical exam, the patient had blanching, palpable, annular wheals in a diffuse distribution over his back and the palmar aspect of both hands. The surrounding skin over these regions was minorly erythematous. The patient's right and left hands also demonstrated angioedema. HEENT, respiratory, cardiac, and GI exams were unremarkable.

The patient was initially trialed on cetirizine for suspected hypersensitivity reaction. He returned the following month for unchanged pressure urticaria and angioedema. At that time, several labs were performed, including thyroid stimulating hormone (elevated), free thyroxine (normal range), and anti-thyroid peroxidase antibodies (elevated). The patient was subsequently diagnosed with Hashimoto's thyroiditis and started on levothyroxine.

Lab Results

Thyroid Measurement	Value	Standard Range
TSH	14.70 uIU/mL	0.358-3.740 uIU/mL
Free Thyroxine	0.80 ng/dL	0.75-1.46 ng/dL
Anti-Thyroid Peroxidase	>1,300 U/mL	0-60 U/mL

Figures



Image 1. Presenting rash.

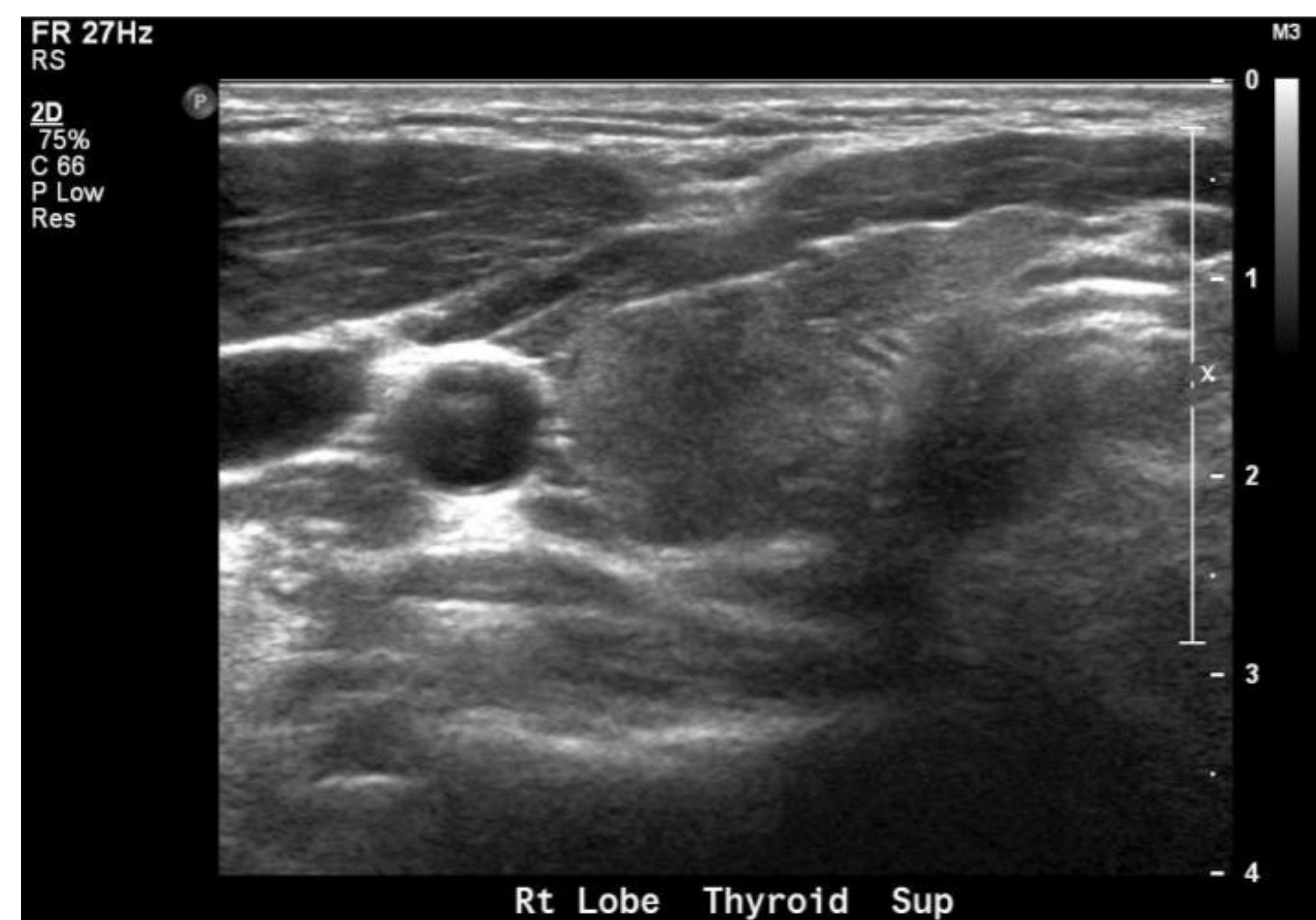


Image 2. Thyroid ultrasound.

Management and Outcome

After several months, the patient returned to the office with continued urticaria and angioedema, as well as novel anterior neck pain and peripheral neuropathy. A thyroid ultrasound was ordered, which demonstrated two thyroid nodules in the right lower lobe and left mid lobe. A celiac panel was also ordered, which showed slightly increased tissue transglutaminase IgG antibodies. The patient's levothyroxine dose was increased.

While the patient's urticaria and angioedema resolved with the dose increase, he noticed an increase from his baseline weight and decrease in his energy. Therefore, he was referred to endocrinology and gastroenterology. Endocrinology conducted a biopsy of the thyroid nodules, which demonstrated chronic inflammation consistent with Hashimoto's thyroiditis. Gastroenterology conducted a duodenal biopsy, which demonstrated mild Celiac disease. The patient was started on a gluten-free diet and has since noticed a gradual return to his baseline energy level. He continues to experience peripheral neuropathy.

Discussion

This case demonstrates a less common presentation of a well-known disease process. Initially, the patient was misdiagnosed with a hypersensitivity reaction before thyroid studies were conducted. He also had a delayed diagnosis of Celiac disease due to a lack of classic disease symptomatology and only mildly elevated tissue transglutaminase IgG antibodies. Hashimoto's thyroiditis commonly co-occurs with intestinal diseases, including Celiac disease.² This is due, in part, to increased gut permeability leading to increased antigen exposure. On a related note, co-occurring intestinal diseases can lead malabsorption of medications, thus decreasing medication efficacy.³ Because this patient's symptoms lingered despite a weight-appropriate dose of levothyroxine, malabsorption secondary to Celiac disease may have been a contributing factor.

The patient's thyroid nodules were evaluated via the standard diagnostic protocol; the ultrasound demonstrated two echogenic thyroid nodules and the biopsy demonstrated chronic inflammation. Of note, a correlation between malignancy of thyroid nodules and Hashimoto's thyroiditis has not been demonstrated.⁴ There is, however, an increased risk of primary thyroid lymphoma in patients with Hashimoto's thyroiditis.⁵

Recognizing autoimmune conditions with less common presentations is essential for timely diagnosis and treatment. Of equal importance is recognizing comorbid conditions that may influence the treatment course.

References

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