



Anaplastic Thyroid Carcinoma Masquerading as Subacute Thyroiditis



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Background

Anaplastic thyroid carcinoma (ATC) is a rare form of thyroid carcinoma that is associated with an extremely poor prognosis. Ultrasonography (US), and the subsequent fine needle aspiration biopsy (FNAB) are the first diagnostic methods in the assessment of a palpable thyroid mass. Nevertheless, some clinical and US features of ATC may be not specific.

Purpose

To report an extremely rare case of ATC masquerading as subacute thyroiditis (SAT) or thyroid abscess.

Case Description

A 40-year-old woman was admitted to our hospital for an examination of a rapidly growing thyroid mass with slight pain in the neck. Three weeks before admission the patient noticed the mass on the right side of the neck with discomfort while swallowing. The woman had a history of antecedent viral symptoms. Physical examination revealed about 3 cm sized, the hard and tender mass palpable on the right thyroid lobe. The laboratory inflammation markers were in normal range except erythrocyte sedimentation rate. The thyroid-stimulating hormone, free T4 values, and antithyroglobulin antibodies were normal. A chest X-ray and the abdominal US didn't show any pathology.

Thyroid ultrasound revealed a 3.4 × 2.6 cm mass with marked hypoechogenicity, ill-defined margins, and no blood supply (Figure 1). The reactive and enlarged neck lymph nodes (level III-IV) were detected. Sonographically the thyroid lesions were indicative of SAT differentiated from thyroid abscess. FNAB from suspicious thyroid mass revealed 1 ml of milky white material. On cytologic examination tumor cells with plentiful of neutrophils were revealed, the direct smear and culture were negative for bacteria.

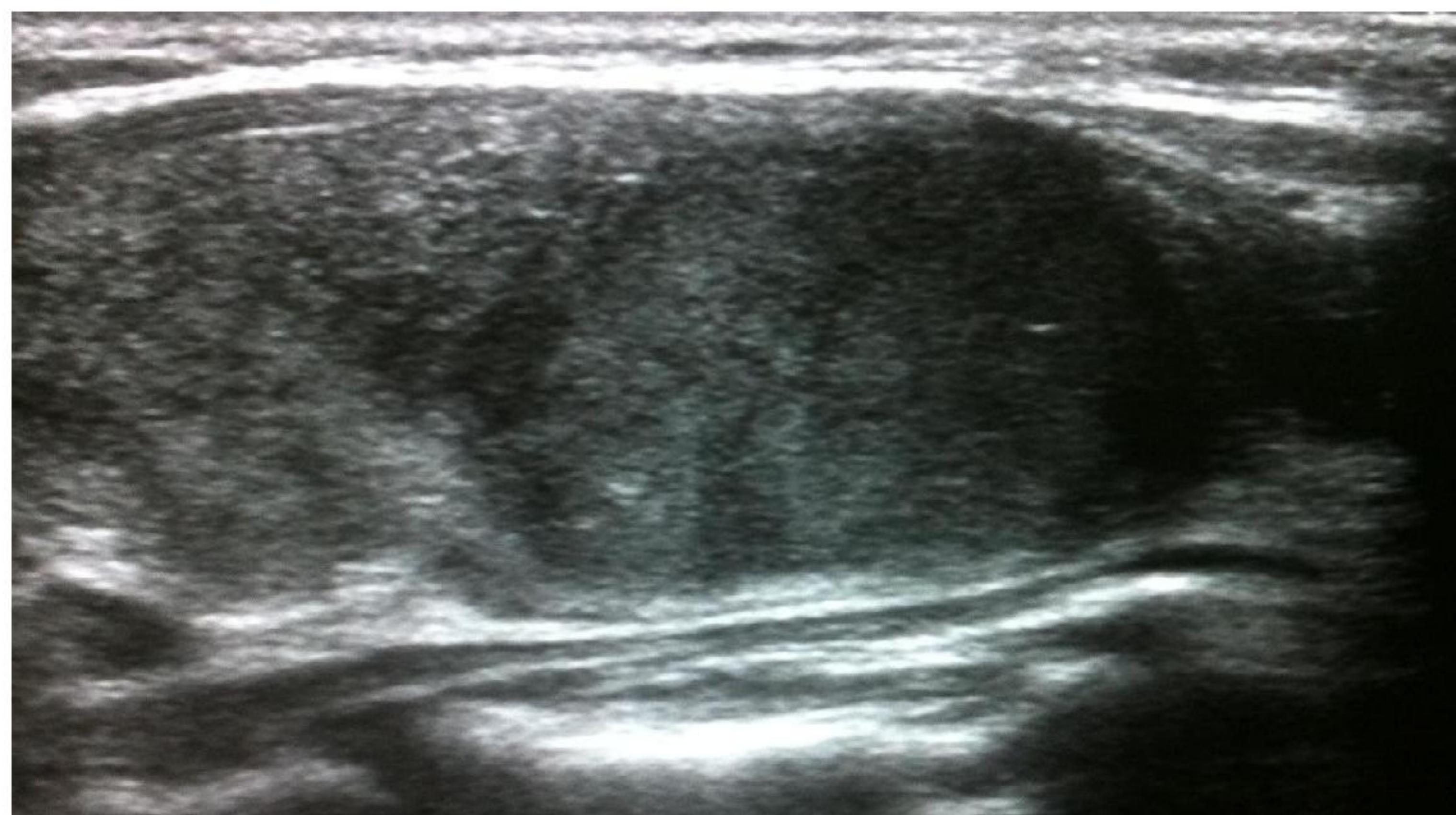


Figure 1. Thyroid US. The 3.4 × 2.6 cm mass with marked hypoechogenicity, ill-defined margins, and no blood supply were detected.

Intervention

Total thyroidectomy and enlarged neck lymph node dissection were performed. Post-surgical pathology assessed no lymph nodal metastasis were detected. Histopathologically ATC was evaluated (Figure 2.)

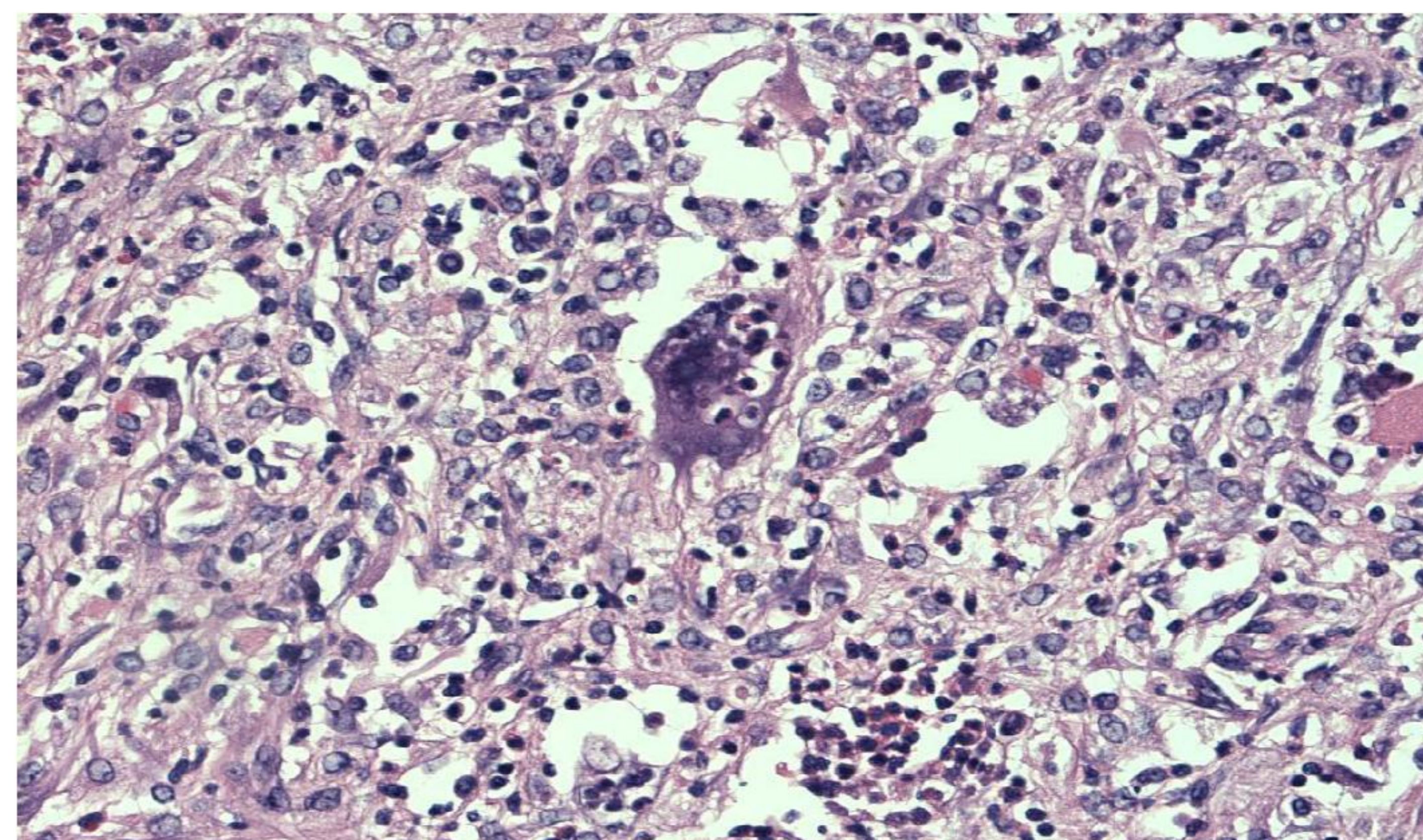


Figure 2. Histology of the right thyroid lobe. The ATC was revealed.

Discussion

SAT is generally clinically diagnosed after evaluating both the clinical and laboratory data. This is because the characteristic ultrasonographic features that suggest thyroiditis have not been clearly defined¹. Clinically, patients with SAT present with localized anterior neck pain associated with glandular tenderness and diffuse pain in the ears and the jaw, which is accompanied by fatigue, weight loss, low-grade fever, elevated erythrocyte sedimentation rate, suppression in the thyroid stimulating hormone level and occasionally dysphagia². Sonographically ATC is hypoechogenic, ill-defined and in general, invasive to adjacent structures, while typical sonographic findings of SAT also include ill-defined hypoechoic, focal or multifocal areas in one or both thyroid lobes³⁻⁵. Thus, hypoechogenicity regions that are typical US findings of SAT, are not specific to this disease and SAT may mimic thyroid malignancy in some case⁶.

Clinical Significance

This case demonstrates an extremely rare case of ATC that mimics SAT and thyroid abscess. In the case of atypical clinical and ultrasonographic features of SAT, a careful examination for thyroid malignancy should be proposed.

References

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