

concerns for her marked leukopenia. She subsequently became acutely psychotic with psychomotor agitation, visual and auditory hallucinations. CT of the brain revealed no acute abnormalities. She was started on olanzapine 2.5 mg daily for hyperthyroidism induced psychosis, along with methimazole 20 mg daily, KI (Lugol solution) 0.35 mL BID and cholestyramine 4g BID. Further workup of leukopenia showed no dysplastic cells on peripheral smear, normal vitamin B12 and folate levels, and negative HIV. She displayed marked improvement, denied ongoing hallucinations after 72 hours of initiating ATD, and WBC subsequently normalized. Thyroid workup was diagnostic for GD with positive TRAB and TSI. She was discharged in stable condition on methimazole 40 mg daily.

Agranulocytosis is a rare side effect of ATD (prevalence ~0.5%) and average time of onset is usually within 2-3 months after starting therapy. Although the majority of cases of hematologic alterations in GD are seen as a complication of ATD, our patient presented with the peculiarity that leukopenia (with both neutropenia and lymphopenia) was associated to untreated hyperthyroidism. This case illustrates the fact that in patients presenting with hyperthyroidism and leukopenia, treatment with ATD has proven to result in achievement of euthyroid state along with a sustained improvement in blood cell levels. Despite its rarity, agranulocytosis has become essentially ingrained to ATD amongst medical professionals. Clinicians should be aware that neutropenia is an uncommon feature of uncontrolled hyperthyroidism and feel confident with initiating ATD in this setting.

Thyroid

THYROID DISORDERS CASE REPORT

The Unusual Case of a Rapidly Enlarging Thyroid Gland in a Patient With Pendred Syndrome

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Pendred syndrome is a genetic condition that is characterized by sensorineural hearing loss, abnormalities of the vestibular system, and goiter. In patients with Pendred syndrome, goiter tends to develop in late childhood or early adulthood and the literature details a progressive enlargement of goiter in these individuals. Here we report the case of a 26 year old female with Pendred syndrome and congenital deafness who presented with a rapidly enlarging thyroid gland over 1 week with associated symptoms of dysphagia, dyspnea, insomnia, and diaphoresis. Thyroid function tests at the time showed no abnormalities. Diagnostic thyroid ultrasound was performed and showed enlarged, multinodular goiter and bilateral thyroid nodules measuring 1.2 cm and 1.1 cm in the right and left thyroid lobe, respectively, with TI-RADS 2 classification. The patient had a thyroid core biopsy performed showing benign appearing thyroid follicles without any evidence of malignancy. After approximately one month following the initial presentation, the patient reported resolution of her goiter and associated symptoms without intervention. To our knowledge, this is the first case in the literature detailing a rapidly

enlarging goiter in a patient with Pendred Syndrome, with subsequent resolution of signs and symptoms.

Thyroid

THYROID DISORDERS CASE REPORT

Thyroid Abscess After FNA Biopsy: A Case Report

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Introduction: FNA biopsy of thyroid nodules is a common bedside procedure that rarely causes serious complications. Thyroid abscess is a rare complication of FNA that requires prompt diagnosis and treatment. We present a case of a thyroid abscess occurring 4 weeks after FNA in a 46 year old female, treated successfully with surgery.

Clinical Case: A 46 year old woman with history of acne presented with dysphagia, right sided neck pain and swelling 4 weeks after FNA of a 4.8cm right thyroid nodule with benign cytology. On physical examination, the right thyroid lobe appeared larger and was tender to palpation. The patient was afebrile. Laboratory evaluation was significant for acutely low TSH 0.06 uIU/mL [0.50 - 6.00 uIU/mL], thrombocytosis 547 K/uL [140 - 400 K/uL] and marked elevated sedimentation rate 98 mm/hr [0 - 20mm/hr]. Interestingly, she had a normal leukocyte count of 9.8 K/uL [4.00 - 10.80 K/uL]. US imaging showed acute increase in size of the right thyroid nodule to 7.6cm. CT neck confirmed a large, partially cystic right thyroid mass and further showed mass effect on surrounding structures and mild stranding in the subcutaneous fat. The patient elected for surgical treatment rather than repeat FNA with drainage of fluid components. Right thyroid lobectomy was planned but converted to surgical abscess drainage with subtotal thyroidectomy due to intense inflammatory changes in the neck. A large amount of purulent material was drained and sent for cultures, which grew multiple *Staphylococcus* species and *Propionibacterium acnes*. Surgical pathology showed granulation and connective tissue including skeletal muscle tissue with marked active chronic inflammation, micro abscess formation, few multinucleated giant cells, and fibrosis. Following surgery, TSH normalized, and the patient reported immediate improvement in symptoms of neck fullness, pain, and dysphagia. She was discharged home on post operative day one with a two week course of oral Augmentin 875mg twice daily. 6 weeks post operatively the patient remains symptom free in her usual state of health.

Conclusion: Thyroid abscess following FNA is a rare occurrence with few reported cases in the literature. Because of its rarity, diagnosis and treatment may be delayed, resulting in a life-threatening emergency. Both repeat needle aspirations and surgical management, combined with culture directed antibiotics, are acceptable methods for treatment. Immunocompromise, not present in our patient, is the main risk factor reported for thyroid abscess. *Propionibacterium* and *Staphylococcus* commonly cause acne, which may have increased our patient's risk of infection. Our case highlights the importance of maintaining a high level of clinical suspicion for abscess in patients who develop neck pain and swelling following FNA, even in the absence of significant risk factors, in order to facilitate prompt diagnosis and treatment.