We present a rare case of biopsy-proven pretibial myxedema in Graves' disease. We reviewed case notes, investigation results, imaging studies and discussed prevalence based on published reports.

CASE

A 39-year-old Chinese male presented with significant weight loss, neck swelling and bilateral lower limb nodular skin lesions. Clinical examination revealed diffuse goiter and bilateral anterior shin swelling. Thyroid imaging showed features consistent with thyroiditis, while bilateral anterior shin lesions indicated pretibial myxedema. Biochemical analysis revealed elevated thyroid function tests and positive thyroid-stimulating hormone antibody levels (>40 IU/L). A skin biopsy confirmed dermal mucinosis consistent with myxedema. Antithyroid medications were initiated. The patient expressed willingness to undergo radioactive iodine treatment if remission is not achieved.

CONCLUSION

Global reported cases of PTM are scarce. In China, a retrospective study revealed a prevalence of 1.6% within thyroid disorders, notably 1.7% in thyrotoxicosis and 0.36% in other thyroid conditions. In Malaysia, reported cases of PTM are minimal. PTM typically coexists with ophthalmopathy, mainly affecting the pretibial region. Pathologically, it results from glycosaminoglycan accumulation triggered by circulating thyrotropin-receptor antibodies, akin to thyroid ophthalmopathy.

In summary, PTM is a rare autoimmune manifestation of Graves' disease, commonly associated with ophthalmopathy and localized to the pretibial region. Clinical diagnosis is typically straightforward, often obviating the need for biopsy, particularly when Graves' disease is active.

EP_A186

CARBIMAZOLE-INDUCED AGRANULOCYTOSIS WITH CONCURRENT SCRUB TYPHUS

https://doi.org/10.15605/jafes.039.S1.197

Jen Hoong Oon, Afifah Kamarudin, Nurul Thohirah Ahmad, Lit Sin Yong

Department of Medicine, Hospital Tuanku Ja'afar Seremban, Malaysia

INTRODUCTION

While carbimazole is an effective treatment for hyperthyroidism, it carries a risk of agranulocytosis. Concurrently, rickettsial infections like scrub typhus can worsen neutropenia. We reviewed case notes, investigation results, imaging studies and treatment options based on a literature review.

CASE

A 55-year-old male farmer with hyperthyroidism on high-dose carbimazole treatment sustained a machete injury to his left middle finger. Upon presentation, he had fever, normal thyroid function, stable hemodynamics, severe neutropenia (total white count 0.4 × 10^9/L, absolute neutrophil count 0.02 × 103/μL) and typhus eschars. He was treated with doxycycline, piperacillin-tazobactam and subcutaneous granulocyte-colony stimulating factor (G-CSF). Abnormal thyroid function (FT4 46 pmol/L and TSH <0.01 m IU/L) and elevated C-reactive protein (234 mg/L) were also observed. Carbimazole was discontinued and replaced with oral cholestyramine and lithium. Positive serologic findings confirmed scrub typhus. With targeted treatment and G-CSF support, the patient's condition improved, as evidenced by normalized blood counts. Radioactive iodine therapy was contemplated once thyroid function was controlled.

CONCLUSION

Carbimazole carries the risk of severe adverse effects, including agranulocytosis. This risk may be compounded with a concurrent rickettsial infection, which can also cause neutropenia. Diagnosis relies on clinical suspicion and profound neutropenia, requiring thorough evaluation including serological tests and PCR to differentiate between agranulocytosis-related and rickettsial infections. Immediate discontinuation of carbimazole and replacement with alternative antithyroid drugs is necessary, often supplemented with broad-spectrum antibiotics and G-CSF to prevent overwhelming infection risks. Tailored antibiotic therapy should also be administered for the rickettsial infection. Prompt recognition and intervention are crucial, particularly in endemic areas. Early diagnosis and aggressive management can help mitigate morbidity and mortality. Educating patients on symptom recognition remains the most effective preventive measure.

EP_A187

"SWINGING HEART" IN A SEVERELY HYPOTHYROID PATIENT: A CASE REPORT

https://doi.org/10.15605/jafes.039.S1.198

Yee Ling Tan, Siti Sanaa WA, Masliza Hanuni MA, Ahmad Wazi R, Johari MI

Hospital Sultanah Nur Zahirah, Kuala Terengganu, Malaysia

INTRODUCTION

Hypothyroidism is a disorder with multiorgan involvement that may lead to various complications. Pericardial effusion is commonly seen in cases of severe hypothyroidism, which may deteriorate into life-threatening cardiac tamponade. Early diagnosis and management of pericardial effusion in hypothyroidism is crucial.

CASE
A 45-year-old female was brought to the emergency department with breathlessness and pleuritic chest pain. She had a background history of diffuse large B-cell lymphoma of the thyroid gland stage 2Bx. She had achieved complete remission for the past year following thyroidectomy and a full course of chemotherapy in December 2022. Thyroxine replacement was only given for a month post-debulking thyroid surgery. She had hypotension (79/56 mm Hg), tachycardia (129 bpm) and muffled heart sounds. Chest X-ray showed globular enlargement of the cardiac silhouette with ''water bottle" configuration and right pleural effusion. Echocardiogram demonstrated early diastolic right ventricular collapse with a large pericardial effusion. The heart was seen swinging within the effusion, suggestive of cardiac tamponade. Urgent pericardiocentesis drained 200 mL of exudative serous fluid. There was no growth on pericardial fluid culture, and cytology was negative for malignant cells. Tests showed severe hypothyroidism (TSH >51.6 m IU/L and fT4 <3.2 pmol/L). Intravenous levothyroxine 50 mcg was given for two days. This was converted to thyroxine 100 mcg orally daily, then increased to 200 mcg daily based on serial thyroid function tests. She was discharged well after eight days of hospitalization. Her latest tests showed improved TSH (24.07 m IU/L) and fT4 (14.03 pmol/L).

CONCLUSION
A high index of suspicion is important for timely diagnosis of cardiac tamponade due to severe hypothyroidism, followed by prompt intervention. While it is a treatable cause of cardiogenic shock, it may be fatal if left unrecognized.

EP_A188

AUTOIMMUNE HEMOLYTIC ANAEMIA: A RARE MANIFESTATION OF GRAVES' DISEASE

https://doi.org/10.15605/jafes.039.S1.199

Muhammad Hilmi, Clarita Clarence, Norazilawati, Nik Shairuzli
Department of Internal Medicine, Hospital Sultan Ismail Petra

INTRODUCTION
Anemia is an atypical manifestation of Graves' Disease (GD). Autoimmune hemolytic anaemia (AIHA) is one of the rarest anemias seen in GD.

CASE
A 55-year-old female presented with failure symptoms and palpitations, with no other hyperthyroid symptoms. She was tachycardic (130 to 140 bpm) with an irregularly irregular heart rhythm. She had pallor, jaundice, thyromegaly without bruit, fine crepitations on both lung fields and pedal edema. She had no murmur or hepatosplenomegaly. Chest radiograph showed congested lungs. Initial blood investigations showed normochromic normocytic anaemia (hemoglobin 6.7 g/dL), and normal WBC and platelet count. Hemolytic workup showed elevated indirect bilirubin (63 µmol/L), positive direct Coombs test, high reticulocyte count (10.8%), and RBC agglutination with few spherocytes on full blood picture. LDH was normal. She had elevated fT4 (58.5 pmol/L), low TSH (<0.005 m IU/L) and high levels of antithyroid peroxidase antibodies (84 IU/mL). She was not in thyroid storm. She was treated with carbimazole 30 mg OD and prednisolone 30 mg OD with respective tapering doses. She was well during our clinic review two weeks later. Hemoglobin (10.4 g/dL) and indirect bilirubin (28 µmol/L) improved without blood transfusion.

CONCLUSION
The presentations of Graves' disease may vary. While pernicious and iron deficiency are the common causes of anemia in GD, AIHA is rare. It is crucial to screen for thyroid disease in AIHA. The scarcity of pure AIHA manifestation in GD may potentially delay the diagnosis and lead to poor patient outcomes. AIHA in GD responds well to antithyroid and steroid.

EP_A189

HAEMOPTYSIS AND HIDDEN THREATS: UNRAVELLING FOLLICULAR THYROID CANCER IN PREGNANCY

https://doi.org/10.15605/jafes.039.S1.200

Shing Shen Bay, Nur Farrah Anima Muhammad, Azzahrah Abdan, Yuhanis Yusof, Gunavathy Muthusamy, Fadzliana Hanum Jalal
Department of Medicine, Hospital Shah Alam, Malaysia

INTRODUCTION
Haemoptysis in pregnancy is a rare but serious complication that demands prompt investigation and intervention. While pulmonary embolism is often considered, it is essential to explore other potential underlying pathologies such as lung cancer, bronchiectasis or infectious causes. In rare cases, metastatic differentiated thyroid cancer may present with haemoptysis as the primary symptom.

CASE
We describe a distinctive case involving a 30-year-old female in her 34th week of twin pregnancy. She had a history of left partial thyroidectomy four years prior for a large thyroid nodule. Histopathology showed papillary-like nuclear features in favour of adenomatous hyperplasia. Haemoptysis began at 20 weeks of pregnancy