

**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.

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**AUTOIMMUNE HEMOLYTIC ANAEMIA: A RARE MANIFESTATION OF GRAVES' DISEASE**

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**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.

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**HAEMOPTYSIS AND HIDDEN THREATS: UNRAVELLING FOLLICULAR THYROID CANCER IN PREGNANCY**

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**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

and increased significantly in amount at 34 weeks. There were no constitutional symptoms. On examination, she was not tachypnoeic, with SpO<sub>2</sub> 98% under room air, BP 133/70 mmHg and HR 108 bpm. She appeared clinically euthyroid, with unremarkable physical findings. Initial blood tests including full blood counts, renal profile and liver function tests were all within normal ranges. Thyroid function tests indicated normal TSH (3.699 m IU/L) and fT4 (13.27 pmol/L). However, D-dimer levels were elevated (3.04 mg/L). Tuberculosis screening with sputum AFB was negative. CT imaging showed multiple bilateral scattered enhancing lung nodules, predominantly in the lower lobes, with possible haemorrhagic nodules in the left lower lobe. She was scheduled for elective caesarean section at 36 weeks with combined care from the respiratory, obstetric and anaesthesia teams.

CT-guided biopsy of the lung lesion at two weeks post-delivery confirmed metastatic follicular thyroid carcinoma.

#### CONCLUSION

This case highlighted the slow and insidious nature of differentiated thyroid cancer with lung metastases which unfortunately were presented during pregnancy. Thorough evaluation in pregnant patients presenting with haemoptysis are of utmost importance.

## EP\_A190

### DIFFERENTIATED THYROID CANCER WITH POSITIVE ANTI-THYROGLOBULIN ANTIBODY AND FINDINGS OF DISEASE EVALUATION ON FDG PET-CT SCAN

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#### INTRODUCTION

Fluorodeoxyglucose positron emission tomography-computerised tomography (FDG PET-CT) imaging has been advocated in differentiated thyroid cancer (DTC) cases with negative radioiodine scan but elevated serum thyroglobulin. Although there is limited available data, FDG PET-CT is also used to assess patients with progressively increasing anti-thyroglobulin antibodies (anti-TG). We aimed to determine characteristics of anti-TG positive DTC patients referred for FDG PET-CT and their association with abnormal imaging findings.

#### METHODOLOGY

We performed a cross-sectional retrospective study of all DTC patients with positive anti-TG who were managed with radioiodine therapy in our institution and referred for FDG PET-CT. Those who defaulted on the PET-CT appointment and clinic follow up with incomplete documentation were excluded. Baseline nodal disease and metastasis were determined following the first radioiodine therapy.

#### RESULT

Majority were females (70.8%). Mean values for age and cancer duration were 51.29 and 7.13 years respectively. Papillary thyroid carcinoma was predominant (95.8%). Majority had baseline nodal involvement (87.5%); a quarter had detectable distant metastasis. Most patients underwent less than five sessions of radioiodine therapy (83.3%). Majority had negative radioiodine scan prior to PET-CT (87.5%). Cases of positive residual radioiodine-avid disease showed lower mean values of anti-TG compared to those with negative radioiodine scan (1423 vs. 4671 IU/mL,  $p < 0.05$ ). FDG-avid malignant disease was observed in 62.5%; three patients were considered to have mixed disease following the PET-CT assessment. Female gender and those with baseline nodal involvement were found to be significantly associated with FDG-avid disease ( $p < 0.05$ ).

#### CONCLUSION

FDG PET-CT has an important role in evaluating DTC patients with positive anti-TG. Those with negative radioiodine scan had higher mean values of anti-TG. Females and patients with baseline nodal involvement were associated with FDG-avid disease.

## EP\_A191

### CLINICAL CHARACTERISTICS AND DEFINITIVE TREATMENT FOLLOWING THYROID STORM: 10-YEAR EXPERIENCE

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#### INTRODUCTION

The prevalence of thyroid storm is 0.2 per 100,000 people per year with mortality rates varying from 11% to 25%. Given the rarity of occurrence and the high mortality rates associated with thyroid storm, it is imperative to understand the definitive therapy pattern following such an event.