

He was started on a thionamide with close monitoring of blood counts. However, the thionamide was withheld in view of his reducing absolute neutrophil count. He was then treated with steroids, lithium and cholestyramine with no improvement in his thyroid function tests.

Hence, he was eventually given radioactive iodine. Graves' disease with myelodysplastic syndrome proves to be challenging for endocrinologists to treat. The probable underlying pathophysiology is that high blood levels of thyroid hormones can be toxic to bone marrow cells leading to an increase in functional activity of reticuloendothelial cells, causing insufficient hematopoietic cells. In one study, free T3 and T4 were noted to be higher with lower TSH in patients with myelodysplastic syndrome. In view of the difficulty of treating hyperthyroidism with anti-thyroid drugs, our patient was treated with radioiodine ablation.

CONCLUSION

In conclusion, managing Graves' disease in individuals with myelodysplastic syndrome requires detailed evaluation and monitoring.

EP_A169

MANAGING THYROTOXIC ATRIAL FIBRILLATION IN A BIOCHEMICALLY EUTHYROID PATIENT

<https://doi.org/10.15605/jafes.039.S1.180>

Hazwani I, Ng Ooi Chuan, Raja Abdul Wafy RMR
Department of Medicine, Faculty of Medicine and Health Sciences, University Putra Malaysia.

INTRODUCTION/BACKGROUND

Hyperthyroidism induces cardiovascular changes like increased heart rate and atrial automaticity, leading to conditions such as atrial fibrillation and heart failure, contributing to higher mortality rates. Despite achieving euthyroidism with treatment, cardiovascular manifestations may persist, necessitating further investigation into factors associated with persistent atrial fibrillation to guide appropriate anticoagulation therapy.

CASE 1

A 66-year-old Malay male with high blood pressure, dyslipidaemia, and thyrotoxic atrial fibrillation (TAF) due to Graves' disease of 5 years duration. He had two failed radioactive iodine treatments and thyroid surgery. He had periodic palpitations, dyspnoea, and left chest pain. His ECG revealed rapid atrial fibrillation. He has uncontrolled elevated blood pressure. The thyroid function tests were normal (T4 = 14.21, TSH = 4.78). He was eventually referred to the cardiology team who recommended cardiac ablation.

CASE 2

A 34-year-old female with Graves' disease and atrial fibrillation (AF) despite taking bisoprolol, went to the emergency department due to frequent palpitations and dizziness. She did not have chest pain. Her ECG showed atrial fibrillation. She had normal thyroid function tests (T4 = 15.21, TSH = 3.56) with elevated troponin levels. She was treated for symptomatic AF. She was subsequently referred to cardiology for cardiac ablation.

CONCLUSION

Thyroid hormones affect cardiovascular function, predisposing hyperthyroid individuals to atrial fibrillation even after achieving euthyroidism. The thromboembolic risk in TAF is reduced by oral anticoagulants. Treatment for TAF involves antithyroid medications to restore euthyroidism together with rate and rhythm regulation. Wong et al., found an unexpected relationship between decreased free thyroxine levels and chronic atrial fibrillation. TAF has a high thromboembolic risk even after euthyroidism, requiring anticoagulants and ongoing monitoring to prevent recurrence. Sometimes ablation is recommended, especially for persistent AF. In conclusion, hyperthyroidism-related AF therapy requires collaboration between endocrine and cardiovascular specialists. Prompt diagnosis and personalised treatment can improve the prognosis and reduce complications.

EP_A170

A RARE CASE OF FUNCTIONAL METASTATIC FOLLICULAR THYROID CARCINOMA WITH EGGSHELL CALCIFICATION

<https://doi.org/10.15605/jafes.039.S1.181>

Yong Siang NG and Chin Voon Tong
Hospital Putrajaya, Malaysia

INTRODUCTION/BACKGROUND

Only a few cases of follicular thyroid carcinoma (FTC) with eggshell (or rim-like peripheral) calcification have been reported. Here, we report a rare case of functional metastatic FTC with eggshell calcification.

CASE

A 57-year-old female presented with progressive neck enlargement, dysphagia, and weight loss of 10 kg over 2 months. She also had a hoarse voice. On examination, she appeared thyrotoxic. She had a palpable 3 x 4 cm mass over the left neck, which was hard in consistency and immobile. Biochemically, she was hyperthyroid with suppressed TSH and high free T4 of 67.9 pmol/L (7.9-14.4). Her chest radiograph showed an eggshell calcification over the neck

region with right tracheal deviation. Her neck ultrasound showed a thyroid nodule (ACR TI-RADS 5). CT scan revealed a left thyroid nodule (3.3 x 3.2 x 3.7 cm) with peripheral coarse calcifications. Mass effects were seen on the adjacent vessels, trachea, and oesophagus. Left vocal palsy was likewise noted. There was a destructive lytic soft tissue lesion seen at the manubrium of the sternum with multiple suspicious lung nodules. FNAB of the thyroid and sternal lesions demonstrated Bethesda II follicular lesions. She underwent thyroid surgical resection with histopathology-confirmed widely invasive FTC. Postoperatively, she remained thyrotoxic for which radioactive iodine therapy was given subsequently.

CONCLUSION

Functional thyroid carcinoma (TC) is rare with the FTC subtype being more prevalent (especially the metastatic disease) and having a less favourable prognosis. FNAB cannot distinguish FTC from benign follicular neoplasm, hence, histologic evaluation of the thyroid specimen is required. About 40-60% of patients with eggshell calcification within the thyroid gland were reported to be malignant and commonly in papillary TC. Sonographic features of a peripheral halo with discontinuity of the calcification are predictive of malignancy. Thyroid carcinoma should be considered in patients with aggressive symptoms and presence of eggshell calcification on radiograph.

EP_A171

THE CONUNDRUM OF BEING CONFRONTED WITH A DIRE THYROTOXICOSIS ON THE MORNING OF CORONARY ARTERY BYPASS GRAFT SURGERY (CABG)

<https://doi.org/10.15605/jafes.039.S1.182>

Mohamed Imran Thoulat,¹ Nor Azmi Kamaruddin,² Alwi Mohamed Yunus²

¹Jeffrey Cheah School of Medicine and Health Sciences (JCSMHS), Monash University Malaysia

²Cardiology Department, Institut Jantung Negara, Malaysia

INTRODUCTION/BACKGROUND

This case illustrates the management of an acute medical condition with complex comorbidities, highlighted by a patient with acute pulmonary oedema post-NSTEMI and severe preoperative thyrotoxicosis, undergoing urgent CABG.

CASE

A 52-year-old female with a history of myocardial infarction presented with an acute pulmonary oedema following an episode of NSTEMI. An urgent coronary angiogram

revealed a thrombosed stent in the left anterior descending and left circumflex arteries. She was deemed a high-risk patient; hence, an urgent CABG was planned. However, on the morning of the planned surgery, she had tachycardia of 130/minute. Thyroid function tests showed elevated fT4 of 99.2 pmol/L (normal range: 12-22) and suppressed TSH <0.01 m IU/L (normal range: 0.4-4.5).

At the insistence of the cardiothoracic surgeon who was concerned about an impending cardiogenic shock, the endocrinologist reluctantly agreed to allow the surgery to proceed with the following provisions: 1. Immediate loading with 10 drops of Lugol's iodine, 100 mg IV hydrocortisone, 10 mg carbimazole, and 4 grams of cholestyramine 2. Heart rate was to be lowered with 80 mg of propranolol repeated every half an hour till the heart rate went to <100/min. 3. Surgery was to be delayed for a further 4 hours to allow for the anti-thyroid regimen to take effect whilst controlling the heart rate. Throughout surgery, the heart rate was maintained at 100/minute. Despite the risk of hemodynamic instability, the surgery was uneventful. The patient was kept in the ICU and eventually extubated 2. All the anti-thyroid regimens were continued diligently except for hydrocortisone which was stopped on POD 3. On POD 5, she developed an episode of atrial fibrillation which was promptly terminated with synchronised cardioversion. Notwithstanding the concern of a life-threatening thyroid storm, her recovery was seemingly uneventful. On POD 9, her fT4 had steadily come down to 16.4 pmol/L and she was promptly discharged home with a maintenance dose of 10 mg carbimazole.

CONCLUSION

The successful outcome in this high-risk patient, achieved through a multidisciplinary approach, underscores the potential benefits and ongoing debate regarding the optimal strategy for such complex clinical scenarios.