CONCLUSION

This case highlights the diagnostic challenges in managing possible RTHβ post-total thyroidectomy. Treatment should be guided by clinical status and target of mid-to-normal FT4 rather than TSH to avoid iatrogenic thyrotoxicosis.

EP_A164

FROM STABILITY TO STORM: THYROID STORM AFTER A DECADE OF ANTITHYROID DRUG

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INTRODUCTION

Long-term antithyroid drug (LT-ATD) has emerged as a feasible treatment strategy for patients who decline radioactive iodine (RAI) or thyroidectomy for relapsed or refractory Graves' disease (GD). Benefits include faster achievement of euthyroidism, lower risk of hypothyroidism, a more favorable cardiovascular profile, and avoidance of surgical risks. Although fluctuations in thyroid status may occur despite good compliance, thyroid storm is exceedingly rare in patients on LT-ATD. While there is no specific data on the incidence of thyroid storm in this cohort, surveys suggest an overall low incidence (0.2–0.76 cases per 100,000 annually). We report a patient with stable GD who developed a thyroid storm despite more than 10 years of LT-ATD.

CASE

A 40-year-old female was diagnosed with GD 11 years earlier during pregnancy. Treatment was stopped at 25 weeks' gestation, but she relapsed at 7 months postpartum and was started on carbimazole. She declined RAI or surgery following a relapse and remained on carbimazole 5–10 mg daily, with good compliance. She presented with a 1-day history of fever, cough, rhinorrhea, diarrhea, and palpitations. She was compliant with carbimazole 5 mg daily. On presentation, BP was 132/70 mmHg, HR 140 bpm, temperature 38.5°C, and SpO2 98% on air. She was alert without agitation, had a diffuse goiter, mild proptosis, and conjunctival injection, with otherwise normal findings. Electrocardiogram showed sinus tachycardia. Laboratory investigations demonstrated mild transaminitis, leukocytosis, markedly elevated free T4 (>154 pmol/L), suppressed thyroid-stimulating hormone (<0.008 mIU/L), and elevated thyroid-stimulating immunoglobulin (2.25 IU/L, reference <0.55). Thyroid function tests 1 month ago was normal. Her Burch-Wartofsky score was 60, consistent with thyroid storm, likely precipitated by upper respiratory tract infection. She improved with treatment and was discharged with carbimazole 30 mg daily with planned tapering, subsequently agreeing to RAI as definitive treatment.

CONCLUSION

Infection may trigger thyroid storm despite good compliance with LT-ATD. Patients should be counselled regarding this risk and advised to seek early medical attention if thyrotoxic symptoms recur.

EP_A165

UNEXPECTED CARDIOVASCULAR COLLAPSE AFTER RADIOIODINE THERAPY IN A PATIENT WITH SEVERE GRAVES' CARDIOMYOPATHY

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INTRODUCTION

Graves' disease may lead to thyrotoxic cardiomyopathy, a potentially reversible condition following restoration of euthyroidism. Radioiodine (RAI) therapy is commonly used as definitive treatment for patients with long-standing Graves' disease or poor compliance with antithyroid medications. However, individuals with severe underlying cardiomyopathy may remain vulnerable to cardiovascular instability during the peri-treatment period.

CASE

We report a 39-year-old male with a 10-year history of Graves' disease who had previously defaulted on follow-up and was admitted with thyroid storm. Echocardiography during that admission demonstrated severe dilated cardiomyopathy with global hypokinesia and an ejection fraction (EF) of 26%. Following treatment with carbimazole and propranolol, he achieved biochemical euthyroidism and remained clinically stable (NYHA class I). In view of his long-standing disease and prior thyroid storm, he underwent RAI therapy as definitive therapy as per the guidelines.

One week following RAI, he developed a persistent cough and progressive dyspnea. Six weeks later, he presented to the emergency department with hypotension (BP 60/31 mmHg) and new-onset atrial fibrillation (heart rate 100 bpm), requiring intubation and inotropic support for cardiogenic shock. Laboratory evaluation showed low free