CASE
We reviewed the last 11 patients who were treated as presumed AIT in our institution who had an elevated fT4 >22 pmol/L and suppressed TSH <0.27 m IU/L at the time of diagnosis. All of them were treated with carbimazole whilst one was started with dexamethasone. However, when the heart rate, symptoms and signs of thyrotoxicosis as well as fT3 levels were analysed, 8 out of the 11 patients were deemed to have demonstrated harmless peripheral or physiological effects of amiodarone which did not require any active intervention. Only one out of the 8 patients had a heart rate above 70/minute at the time of diagnosis notwithstanding the fact they were on low doses of beta-blockers (2.5-5 mg of bisoprolol). Three out of the 8 patients had low fT3 whilst the remaining 5 had normal levels of fT3. Out of the 3 who had true AIT, two were treated as type 2 AIT and started on prednisolone whilst the third was treated as type 1 AIT and managed with carbimazole.

CONCLUSION
One of the pitfalls in managing AIT is the failure to recognise the peripheral effect of amiodarone which produces high T4 and suppressed TSH. Only by analysing the T3 level whilst assessing the heart rate and symptomatology will we be able to discern this phenomenon from that of AIT.

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A UNIQUE ENCOUNTER OF PAPILLARY THYROID CANCER AND HODGKIN LYMPHOMA IN TANDEM

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INTRODUCTION/BACKGROUND
Papillary thyroid carcinoma (PTC) comprises the largest proportion of differentiated thyroid carcinoma cases. A notably uncommon scenario involves the simultaneous manifestation of PTC and Hodgkin's lymphoma as distinct primary malignancies.

CASE
A 35-year-old female with no history of radiation exposure presented with painless neck swelling for one year. Thyroid ultrasonography revealed 2 hypoechoic lesions over the left lobe measuring 1.8 x 1.6 cm and 0.7 x 0.9 cm (TIRADS 4) and the right lobe measuring 0.4 x 0.4 cm (TIRADS 1) with multiple prominent cervical lymph nodes. Her thyroid profile was normal. Cervical lymph node biopsy was performed and result suggestive of metastatic papillary thyroid carcinoma. She subsequently underwent total thyroidectomy with modified radical neck dissection. Histopathological examination confirmed multifocal (>5 foci) classical variant papillary thyroid carcinoma, with the largest nodule measuring 17 mm, demonstrating lymphovascular involvement and regional nodal metastasis. According to American Thyroid Association (ATA) guidelines, this case was stratified as high recurrence risk. An unexpected diagnosis of nodular sclerosis classical Hodgkin lymphoma was made during lymph node dissection. Bone marrow assessment ruled out lymphomatous involvement and her computed tomography neck, thorax, abdomen, and pelvis revealed extensive bilateral supraclavicular mediastinal and abdominal lymphadenopathy. Therefore, stage 3 Hodgkin lymphoma was diagnosed. After six cycles of escalated BEACOPP chemotherapy for Hodgkin lymphoma, her positron emission tomography (PET) scan revealed no active lymphoma and resolved thyroid bed issues. She is on TSH suppression with 100 mcg of Levothyroxine daily and plans for radio-ablation therapy. Thyroid function, calcium, and parathyroid hormone levels are all normal.

CONCLUSION
This case highlights the rarity of synchronous papillary thyroid carcinoma and Hodgkin's lymphoma. Thorough investigations are crucial to confirm both pathologies and prioritizing treatment becomes essential. Meta-analysis shows that delaying radio-ablative iodine treatment does not impact long-term overall survival in differentiated thyroid cancer. Therefore, lymphoma treatment takes precedence in this case.

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DELAYED-ONSET AMIODARONE-INDUCED THYROTOXICOSIS

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INTRODUCTION/BACKGROUND
Amiodarone is a commonly used antiarrhythmic drug for treatment of refractory tachyarrhythmias. However, its use can lead to development of amiodarone-induced thyrotoxicosis (AIT). AIT is classified into type 1, a form of iodine-induced hyperthyroidism, and type 2, which is a

drug-induced destructive thyroiditis. AIT can be difficult to treat because of the long half-life of amiodarone. We describe a patient who developed AIT 15 months following cessation of amiodarone.

CASE

A 58-year-old male presented with sudden onset palpitations and hand tremors. He had history of ventricular tachycardia, for which he had undergone Implantable Cardiac Device (ICD) insertion. He had been on amiodarone for two years, from September 2021 to February 2023, following which the medication was discontinued. At the time of admission, amiodarone had been stopped for 15 months. On examination, he was tachycardic with heart rate of 150/min. The electrocardiogram (ECG) showed sinus tachycardia with spontaneous ICD shock. Thyroid function test indicated TSH <0.08 m IU/L (0.35-4.95), FT3 11.8 pmol/L (2.9-4.9), and FT4 >64 m IU/L (9.01-19.05). T4/T3 ratio was >4. Considering the patient's history of amiodarone use, a diagnosis of AIT was established. The patient was prescribed carbimazole 30 mg daily and fT4 remained >64 m IU/L after 1 week. Prednisolone 40 mg daily was added to treat mixed AIT 1 and 2. Thyroid ultrasonography revealed heterogeneous echogenicity in both thyroid lobes, with no focal lesion. Doppler study demonstrated a normal pattern of vascularity. The thyroid peroxidase antibody was 185 IU/L (<35) and the patient is currently awaiting thyroid scintigraphy.

CONCLUSION

The differentiation between type 1 and type 2 AIT can be challenging and indistinct, and some patients exhibit mixed forms of AIT. In such cases, combination therapies are often employed. It is critical to emphasize the importance of maintaining a high index of suspicion for AIT, irrespective of treatment duration or the time elapsed after discontinuation of amiodarone, due to the prolonged half-life of the drug.

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METASTATIC MEDULLARY THYROID CARCINOMA DESPITE PROPHYLACTIC TOTAL THYROIDECTOMY IN MULTIPLE ENDOCRINE NEOPLASIA (MEN) 2A

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INTRODUCTION/BACKGROUND

Medullary thyroid carcinoma (MTC) is a rare neuro-endocrine tumour originating from parafollicular cells. Seventy five percent of MTC occur in a sporadic form while 25% are hereditary and associated with Multiple Endocrine Neoplasia (MEN) type 2. As the age of onset of MTC and penetrance of MTC in MEN2 varies by subtype, prophylactic thyroidectomy is recommended for patients with the highest risk of pathogenic variants. We describe a patient with MEN2a with metastatic MTC 10 years following prophylactic thyroidectomy.

CASE

A 29-year-old female was diagnosed with MEN2a at the age of 15 years. The diagnosis was made through genetic screening after her mother was diagnosed with the same condition with RET proto-oncogene mutation. She underwent prophylactic thyroidectomy at 16 years old. Her tumour markers, calcitonin and carcinoembryonic antigen (CEA) were within the normal ranges. She had no loco-regional recurrence during serial follow-up. However, her tumour markers were noted to increase 10 years after surgery. CEA doubling time was 19 months indicating progressive disease. Markedly elevated serum calcitonin at 783 pg/ml (<7.6) indicated high tumour burden and likely metastases. Neck ultrasonography did not reveal any disease recurrence. Serial CT scan of the abdomen demonstrated multiple liver lesions suspicious of metastases. Ga-68 DOTATATE and F-18 FDG PET-CT scan showed multiple non-somatostatins nor FDG-avid liver lesions. There were FDG-avid cervical lymph nodes suspicious of nodal metastases. Histopathologic analysis of the liver biopsy specimen confirmed metastatic MTC. She is planning for a multi-targeted tyrosine kinase inhibitor as systemic therapy for metastatic disease.

CONCLUSION

Management of MTC in the context of MEN2a is challenging and advances in molecular diagnosis and risk stratification systems have led to better individualized treatment and follow-up strategies. Prophylactic thyroidectomy as early