with multiple ganglion cells was seen, indicative of ganglioneuromas. Sections of the adrenal gland show an uninvolved cortex and medulla.

CONCLUSION

In our case, ganglioneuromas may have arisen from the paravertebral sympathetic plexus located retroperitoneally. This rare condition may mimic adrenal malignancy radiologically, and the modality of treatment is surgical excision.

EP_A070

A CASE REPORT OF THYROTOXIC PERIODIC PARALYSIS: AN ENDOCRINE EMERGENCY CAUSE OF PARAPARESIS IN YOUNG ADULTS AND ITS REVIEW OF PATHOPHYSIOLOGY

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INTRODUCTION/BACKGROUND

Thyrotoxic periodic paralysis (TPP) is a potentially life-threatening clinical manifestation of thyrotoxicosis predominantly seen in those of Asian descent between the ages of 20 and 40 years. The attack is characterised by acute and reversible severe muscle weakness with hypokalemia that resolves with the treatment of hyperthyroidism.

CASE

A 22-year-old Chinese male with no previous medical illness presented to the emergency department with sudden onset bilateral lower limb weakness associated with intermittent palpitations for the past month. Lower limbs neurological examination revealed proximal muscle weakness but preserved tone, reflexes and sensation. There was a small diffuse goitre and fine tremors on the bilateral hands. He did not have features of thyroid eye disease or a thyroid bruit. Additionally, he denied any family history of thyroid disorders. Electrocardiogram showed sinus tachycardia, flattened T-waves and generalised U-waves. Laboratory assessments showed severe hypokalemia with a serum potassium level of less than 1.5 mmol/L (3.4-4.5). He was given intravenous potassium correction (KCl) twice (4 g in total) and 4 pints maintenance drips at 1.5g KCl per pint. Thyroid function tests and TSH receptor antibodies were suggestive of Graves' Disease. He was discharged home with carbimazole and propranolol and remains well after discharge.

CONCLUSION

Thyrotoxic periodic paralysis should be considered in the differential diagnosis of neuromuscular weakness in the context of hypokalaemia by the treating physicians. In TPP, hypokalaemia results from an intracellular shift of potassium induced by thyroid hormone sensitisation of the Na+/K+–ATPase pump, triggering muscle weakness and paralysis. The importance of prompt recognition, early diagnosis and treatment of the condition can prevent severe complications, such as cardiac dysrhythmia and respiratory failure. The addition of non-selective beta-blockers, such as propranolol, is utilised to treat and prevent paralytic attacks by mitigating hyperadrenergic activity and improving hypokalaemia.

EP_A071

A CASE REPORT AND LITERATURE REVIEW OF SUBCUTANEOUS LEVOTHYROXINE ABSORPTION TESTING IN A PATIENT WITH REFRACTORY PRIMARY HYPOTHYROIDISM

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INTRODUCTION/BACKGROUND

We present a case of refractory primary hypothyroidism in which the patient failed an oral levothyroxine (LT4) absorption test under optimised conditions. Given limited formulary options and the patient's complex clinical background, an off-label trial of subcutaneous LT4 was initiated as an alternative treatment strategy.

CASE

A 51-year-old male underwent total thyroidectomy with right central neck dissection and radioactive iodine ablation for papillary thyroid carcinoma. He was maintained on a supraphysiologic dose of oral LT4 (approximately 3.16 mcg/kg/day) with suppressed TSH 0.24 mIU/L and fT4 20.6 pmol/L. He was admitted for encapsulating sclerosing peritonitis, requiring two paracentesis, diagnostic laparoscopy, intravenous antibiotics and systemic corticosteroids. During admission, thyroid function progressively worsened (TSH >100 mIU/L and fT4 9.7 pmol/L) despite adherence to increasing oral LT4 doses. An oral LT4 absorption test confirmed malabsorption. Given his ischemic heart disease, weekly high-dose intravenous or intramuscular LT4