ABSTRACT

Weak on the knees: A case report on hyperthyroid hypokalaemic periodic paralysis

Introduction

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Case Report

A 27 years old Malay man presenting with history of sudden weakness of bilateral lower limbs. Examination showed bilateral lower limb muscle weakness with power of 3/5, with other features of lower motor neuron lesion. During his stay in the ED, he noted to have progressing bilateral muscle weakness involving both upper limbs and the respiratory muscle causing acute respiratory acidosis. Blood investigation revealed potassium level of 2.7 mmol/L and further dropped up to 1.7mmol/L with biochemical profile of thyrotoxicosis with suppressed TSH, and elevated T4 level . Patient then was given oral carbimazole, beta blocker, high dose IV KCL correction via central venous lines and Non Invasive Ventilation (BiPAP). After only one day in ICU, he was able to wean off the NIV and discharged to general ward.

Discussion

HHPP is a rare type of hypokalaemic periodic paralysis. This diagnosis should be considered when any patient presents with marked painless weakness after provocation with exercise or dietary changes. The mainstays of treatment of HHPP include prevention of the potassium shift using beta-blockade, potassium replacement and treatment of the underlying hyperthyroidism . In our case, IV potassium replacement was administered immediately however the diagnoses of HHPP were not initially recognised as the diagnosis of Guillen Barre Syndrome was first made, thus treatment for HPPP was a slightly delayed.

Conclusion

A young male patient presenting to the ED with acute muscle weakness can encompass a multitude of differential diagnosis. To prevent life-threatening cardiac and respiratory complications, it is critical to consider and diagnose HHPP early, even in populations where the condition is rare.