Hypokalaemic periodic paralysis secondary to subclinical hyperthyroidism: an uncommon cause of acute muscle paralysis

ABSTRACT

Hypokalaemic periodic paralysis secondary to subclinical hyperthyroidism is an uncommon clinical phenomenon characterised by lower limb paralysis secondary to hypokalaemia in the background of subclinical hyperthyroidism. In this article, we report a patient who presented with progressive lower limb muscle weakness secondary to hypokalaemia that was refractory to potassium replacement therapy. He has no diarrhoea, no reduced appetite and was not taking any medication that can cause potassium wasting. Although he was clinically euthyroid, his thyroid function test revealed subclinical hyperthyroidism. His 24-hour urine potassium level was normal, which makes a rapid transcellular shift of potassium secondary to subclinical hyperthyroidism as the possible cause. He was successfully treated with potassium supplements, non-selective beta-blockers and anti-thyroid medication. This case report aimed to share an uncommon case of hypokalaemic periodic paralysis secondary to subclinical hyperthyroidism, which to our knowledge, only a few has been reported in the literature.