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Dysesthesia can be a clinical feature of osmotic demyelination syndrome due to rapid sodium correction: a case report

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Biography

Anupriya Annapurni's 6 research works with 106 reads, including: Acidophil stem cell pituitary adenoma nottingham university hospitals NHS trust she is currently a research postgraduate of the transport strategy centre (TSC) within the centre for transport studies.

Abstract

A 56 -year- old Asian lady, teetotaller, type2 diabetes mellitus (well controlled) on metformin presented with a week history of diarrhoea and vomiting. Clinical examination was unremarkable including an intact neurological examination. Blood chemistry showed sodium of 102 mmol/l (135-145), potassium 2.5mmol/l (3.5-5.3), urea 7.2mmol/l(2.9-7.5), creatinine 86mmol/l (59-104), eGFR

>90mmol/min/1.73m2 (60-200). She was diagnosed with gastroenteritis. Commenced on intravenous fluids - 2 litres normal saline with 40mmol of potassium replacement for 8 hours; followed by further intravenous normal saline and potassium supplementation. Patient was discharged after 48 hours of admission as clinically better.

She presented two days later with complaints of burning sensation all over the body, fearful affect and hightened anxiety. Her blood chemistry including electrolytes were within normal limits. Neurological examination was unremarkable. Her MRI brain (Image 1) showed extra pontine myelinolysis(EPM) of the basal ganglia due to rapid correction of hyponatremia. Retrospectively reviewing her biochemistry showed sodium was corrected from 102 mmol/l to 130 mmol/l in 43 hours (about 14mmol/L of sodium/day). Diagnosed as EPM causing dysesthesia and behavioural symptoms. Patient was treated symptomatically.

Osmotic demyelination syndrome(ODM) is a pathological brain dysfunction caused by a rapid rise in serum sodium levels during hyponatremia treatment1. EPM is a rare type of ODM and accounts for about 10% of the total cases2. Hypokalaemia can be a predisposing factor for ODM.3 To my knowledge this type of clinical manifestation of ODM is not reported elsewhere. Unfortunately only supportive therapy is available for this potentially avoidable complication.

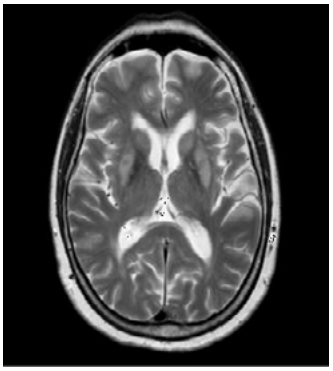

Image 1: MRI brain with demyelination features.

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