56. SEVERE HYPOPOTASSEMIA AS A STROKE MIMIC

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Introduction. Stroke mimics are specific conditions that present with an acute neurological deficiency simulating acute stroke and constitute approximately 30% of all acute stroke admissions. While often overlooked, electrolyte disturbance is a rare but important reversible cause of the acute focal neurological deficit and should remain on the differential diagnosis. In one stroke study, metabolic disorders accounted for 30% of stroke mimics. Hypokalemia is one of the most common electrolyte abnormalities encountered in medical practice. An accurate diagnosis can be provided by a careful history and well-timed testing.

Case presentation. An 83-year-old man, presented at the Emergency Department (ED), with first symptoms of hemiparesis and motor aphasia. Ischemic stroke was preliminarily diagnosed based on acute onset of clinical manifestation and medical history of hypertension, atrial fibrillation, and recent myocardial infarction. Before the admission, our patient had diarrhea for two days. On Computer tomography (CT) patient developed cardiac arrest and it was successfully resuscitated. Brain CT scan showed fusiform aneurysmal dilatation of the basilar artery. The electrocardiogram showed normal sinus rhythm with a mildly flattened T-wave. Cardiac markers- troponins were in the reference ranges, Glucose levels 10mmol/l, but serum potassium level was low (1,9mmol/l). The potassium correction was started and the patient's neurological deficit rapidly resolved. 24 hours brain CT scan didn't reveal a new consistent abnormality. Brain magnetic resonance imaging was performed, also without ischemic lesions. Severe hypokalemia was diagnosed in our patient.

Discussion. This case illustrates that mimicking hypokalemia can induce a unilateral motor deficit, as stroke is such a condition being rarely described previously in the literature, but remains an important diagnosis in the ED. The pathophysiology of unilateral motor deficit in acute hypokalemic hemiparesis remains to be unknown. Previously, only one case was reported with hemiparesis due to severe hypokalemia.

Conclusion. We present an atypical case of hypokalemia which induces hemiparesis. So, physicians should be alert about these conditions. The correct diagnosis can be lifesaving.