[ID-P#015] Emergency Department, Shengjing Hospital of China Medical University

Min Zhao and Jun Han
Shengjing Hospital of China Medical University

Background and Objectives: Barium carbonate toxicity, although rare, can cause hypokalemia, metabolic acidosis and severe muscle weakness. This case report examines an 18-year-old male who presented with acute neurological symptoms following barium carbonate poisoning. This case highlights the importance of prompt recognition and treatment of barium carbonate poisoning to prevent fatal outcomes.

Case report: The patient was admitted with slurred speech, limb weakness and lingual paralysis for 7 hours. His medical history was not obvious. Physical examination: T 36.3°C, HR 108 b/min, BP 186/106 mmHg, R: 18 b/min, SO2: 88%. Alert, tongue paralysis, unable to speak, unable to swallow, incomplete cooperation during examination. Pupils are equal, D=4.0mm, pupillary reflexes are sensitive

to light, no bleeding on the skin and mucous membranes, no palpable lymph nodes, pharynx is red, tonsils are not large, lungs were auscultated without rales, no murmur heard on auscultation of the heart valves. Abdomen is flat and soft, no tenderness, no muscular tension, no percussion pain in the kidney area, Babinski sign is negative bilaterally, muscle strength grade 1 in all extremities, decreased muscle tone, weak tendon reflexes, no oedema in the lower extremities. ECG: Frequent premature ventricular beats. The initial diagnosis was hypokalemia, metabolic acidosis and frequent premature ventricular arrhythmia. The treatments mainly included potassium supplementation, continuous renal replacement therapy (CRRT) and ventilatory support for respiratory failure. Intranasal feeding and gastric monitoring were also used. After the comprehensive treatments, the patient's condition was stabilised. On the third day of hospitalisation, the patient's neurological status was improved significantly, allowing him to respond and cooperate during physical examination. After the endotracheal tube was removed, the patient acknowledged that he had ingested over 20 tablets of barium carbonates, leading to a definitive diagnosis of barium carbonate poisoning.

Conclusions: This case highlights the urgent need for rapid intervention in cases of barium carbonate poisoning, including effective electrolyte management, CRRT and respiratory support. Early recognition and appropriate treatment are essential to improve outcomes in patients with similar poisoning events.