Severe hypocalcemia manifesting as stroke

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Abstract

Introduction: Hypoparathyroidism can occur after thyroidectomy which is correlated with several factors, such as the patient’s age, the extent of resection and surgeon’s expertise. Neurologic disturbances after thyroidectomy are rare and caused by chronic hypocalcaemia resulting from iatrogenic hypoparathyroidism. The clinical presentation is variable, there are asymptomatic patients whose calcifications appears in imaging tests or with symptoms resulting from hypocalcemia.

Clinical case: A 43-years-old woman with a history of hypoparathyroidism secondary to a thyroidectomy performed at 23 years of age, presents to the emergency department complaining of a sudden onset of left hemicranial headache, ipsilateral hypoesthesia of the body and face, transient motor aphasia, and amaurosis fugax of the left eye. Imaging studies were unremarkable for ischemic or haemorrhagic events, however several hyperdensities were present bilaterally throughout the basal ganglia, thalamus and deep cerebellar nuclei, suggestive of calcium accumulation. Blood chemistry revealed severe hypocalcaemia (4.6 mg/dL) and hyperphosphatemia (6.9 mg/dL) which prompted immediate medical correction. Her family history is negative for calcium disorders. The patient was admitted for observation with the differential diagnosis of Fahr syndrome, transient ischemic attack or hypoparathyroidism, associated with severe hypocalcemia and cerebral calcifications. She was discharged after 8 days with complete recovery, and follow-up was scheduled in the outpatient clinic.

Conclusion: Severe hypocalcemia can present stroke symptoms, but early detection allows for timely treatment and complete recovery. Fahr syndrome can’t be excluded but with the antecedents of the patient shouldn’t be considered as main diagnosis.