Primary hypoparathyroidism: Rare neuropsychiatric presentation of manic symptoms, myopathy, and seizures

Sir,

Primary hypoparathyroidism is characterized by low parathyroid hormone (PTH), low calcium, and high phosphorous. Although features of mania have been described with hyperparathyroidism, it has never been reported with hypoparathyroidism. Only depression and psychosis have been described with primary hypoparathyroidism.[1,2] Hereby, we present a rare case of primary hypoparathyroidism with manic symptoms, seizures, and myopathy.

A 23-year-old homemaker presented with a 3-day history of irritability, increased goal-directed activity, decreased need for sleep, delusion of grandiosity, not associated with altered sensorium, or automatisms. Bilateral lower limb weakness, hyperreflexia, and slurring of speech were noted. Mental status examination revealed euphoric effect, increased psychomotor activity, speech, and delusion of grandiosity. History revealed an episode of irritability, suspiciousness, increased nongoal-directed activity, and delusion of persecution for 3 months a year back.

The patient was diagnosed with primary hypoparathyroidism at 10 years of age when she developed one episode of complex partial seizures. She remained seizure-free for the next 13 years. Then, she started having episodes of seizure with bilateral lower limb weakness and slurring of speech. There was no history of neck surgery/irradiation/chronic use of proton pump inhibitors.

Investigations at presentation revealed low serum PTH (<3 pg/mL), calcium (5.04 mg/dL), vitamin 25-hydroxy (vitamin 25-OH) cholecalciferol (9 ng/mL), and high phosphate (8.73 mg/dL). Electroencephalogram revealed generalized epileptiform discharges with bifrontal predominance. Dystrophic dense calcification was noted in the cerebellar hemispheres, basal ganglia, and subcortical white matter on magnetic resonance imaging. For the current episode, a diagnosis of mania with primary hypoparathyroidism with proximal lower limb myopathy with seizure disorder was made. Young’s Mania Rating Scale (YMRS) score was 16.

The patient was started on quetiapine 150 mg, levetiracetam 1500 mg, calcium 1500 mg, and vitamin 25-OH cholecalciferol 750 IU per day. By the end of 2 weeks, the patient was euthymic and seizure-free with improvement in myopathy and speech. Currently, at 1-year follow-up, YMRS = 0 with no episodes of seizures and myopathy.

This is probably the first case of primary hypoparathyroidism, presenting with manic features, bilateral proximal lower limb myopathy, and seizures. Acute transient psychotic disorder (ATPD) was ruled out in the current episode as the patient had mood congruent delusions, increased goal-directed activity, and decreased need for sleep. A differential of postictal psychosis was also considered. However, the episode of mania was not preceded by confusional state with automatism or associated with altered sensorium.

Psychiatric symptoms were found to improve with the neurological symptoms, with calcium supplementation, as noted in the previous literature which supports diagnosis of mania secondary to hypoparathyroidism.[1,2]

The patient had also suffered an episode of ATPD about a year before occurrence of mania which occurred in the absence of any neurological symptoms. It has earlier been reported in the Indian studies that about one-third cases of ATPD convert into mood disorder.[3] Hence, it would be interesting to study the long-term course of psychiatric symptoms in patients with hypoparathyroidism.

Although seizure disorder has been commonly described in patients with hypoparathyroidism, very few cases of myopathy have been published.[4,5] Hence, the index case is rare in terms of neuropsychiatric manifestations and highlights the need for thorough neurological examination in patients with mood symptoms.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.
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