Lip Tremor in Hypocalcemia

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Neuromuscular hyperexcitability (NH) resulting from hypocalcemia commonly manifests as facial twitching and perioral tingling.1 Lip tremor in hypocalcemia has never been reported to the best of our knowledge. We report a postpartum female, with two previous miscarriages, presenting with seizures and lip tremor and diagnosed with hypocalcemia.

A 23-year-old woman, 5 days postpartum with past history of two second-trimester miscarriages presented with new-onset generalized tonic-clonic seizures and lip tremor without fever, headache, or vomiting. Trousseau’s and Chvostek’s signs were positive, and neurological examination revealed a rhythmic, 8 to 10 Hz tremor involving upper lip (►Video 1). Computed tomography of the brain revealed bilateral basal ganglia, thalamus, subcortical white matter, red, and dentate nuclei calcification (►Fig. 1). Electroencephalogram was nonconclusive. Blood work-up revealed reduced calcium of 1.37 mmol/L (normal, 2.14–2.56), raised phosphate of 8.22 mg/dL (normal, 3–4.5), reduced parathyroid hormone of 4 pg/mL (normal, 12–88), and vitamin D of 9.55 ng/mL (normal, 10–55), thereby suggesting a diagnosis of idiopathic hypoparathyroidism. Gynecological and hematological investigations including anticardiolipin antibodies returned nonconclusive. We treated her initially with intravenous calcium gluconate followed by oral elemental calcium 2 g/d and calcitriol 1.5 g/d. Her symptoms including lip tremor subsided over subsequent 4 weeks (►Video 1).

Hypocalcemia is common in pregnancy, mostly due to hypoparathyroidism and dietary deficiency.2 Long-standing idiopathic hypoparathyroidism was the cause in our case. NH resulting from reduced extracellular calcium modulates various receptors and ion channels,3 commonly manifesting as muscle spasms, cramps, twitchings, paresthesia, numbness, and seizure.1 Lip tremor in our case appears related to NH.

Fig. 1 Noncontrast computed tomography of the brain showing calcifications in bilateral basal ganglia, thalamus, and subcortical white matter (A) and cerebellum (B).
NH may increase uterine irritability leading to miscarriages,\textsuperscript{4} as reported by our case. Nearly 30 g of calcium is transferred from mother to the fetus throughout pregnancy with maximum in the last trimester.\textsuperscript{1,4} Thus, long-standing hypocalcemia in pregnancy is more likely to manifest in the peripartum period as evidenced in our case. Asymptomatic hypocalcemia in pregnancy is widely prevalent in India,\textsuperscript{5} and regular monitoring of serum calcium and a calcium-rich diet in pregnancy is essential.

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**Conflict of Interest**
None declared.

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