

In Response To:

Roy U, Das SK, Mukherjee A, et al. Irreversible hemichorea–hemiballism in a case of nonketotic hyperglycemia presenting as the initial manifestation of diabetes mellitus. *Tremor Other Hyperkinet Mov.* 2016; 6. doi: 10.7916/D8QZ2B3F

Cosentino C, Torres L, Nuñez Y, et al. Hemichorea/hemiballism associated with hyperglycemia: report of twenty cases. *Tremor Other Hyperkinet Mov.* 2016; 6. doi: 10.7916/D8DN454P

Letters

Glycemic Choreoballism

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Dear Editor,

We recently read two papers about glycemic choreoballism (gCB) with great interest.^{1,2} In a case series, the authors described variable blood sugar levels (BSLs) at choreoballism onset and neuroimaging abnormalities in 18 of 19 patients.¹ Although BSL was commonly elevated in gCB, there were some cases with hypoglycemia or euglycemia.^{3,4} Glycosylated hemoglobin (HbA1c) levels also varied. Thus, elevated BSL or HbA1c may not be an essential feature of gCB. Although putaminal involvement was always demonstrated in cases with gCB, brain computed tomography and T2-weighted magnetic resonance imaging (MRI) showed heterogeneous signals. Abnormal, high signal intensity in the putamen on T1-weighted MRI is the most consistent feature of gCB.³

In their case report, the authors reported persistent gCB for 6 months.² The clinical outcome of gCB varies from rapid recovery to prolongation over years. In our study, gCB persisted for longer than 1 and 12 months in 37.2% and 14.2% of cases, respectively.³

The study of gCB has been limited by various factors such as variable clinical presentation and inconsistent datasets, including diagnostic work-ups. Thus, we suggest the following operational diagnostic criteria for gCB: diagnosis of DM, presence of CB, and hyperintensities on T1-weighted MRI.³ Adherence to these diagnostic criteria is important for case selection, which is fundamental for understanding disease pathophysiology and choosing treatment strategies.

Appropriate gCB management also remains unclear. Meticulous BSL control is essential but not always successful. Current medical treatments including dopamine receptor blocking agents (DRBAs) are ineffective in many cases. Moreover, DRBA use can be complicated with parkinsonism, especially in older patients with or without subclinical neurodegeneration, evidenced by abnormalities on dopamine transporter scans.^{5,6} The abolition of gCB by focal lesions such as thalamic infarctions may suggest surgical treatment as an option for chronic, refractory cases.⁶

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