Not All Refractory Seizures are Epilepsy: A Case of Insulinoma

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Abstract

Hypoglycemia can present with diverse neurological manifestations ranging from altered cognition, impaired consciousness, seizures, and psychosis to chronic complications such as dementia and neuropathy. Insulinoma, though rare, is a potentially reversible cause of recurrent hypoglycemia that can mimic seizure disorders, leading to diagnostic delays.

We report the case of a 29-year-old man with a one-year history of recurrent stereotyped seizures, resistant to multiple antiepileptic drugs. The episodes predominantly occurred in the early morning or several hours post-meal and were occasionally shortened with food intake. Despite extensive neurological evaluation including MRI and video EEG, no epileptiform activity was detected. During one admission, he was found to be hypoglycemic (48 mg/dl) with rapid recovery following glucose administration. Endocrine workup confirmed hyperinsulinaemic hypoglycemia, and contrast-enhanced CT revealed a solitary insulinoma in the pancreatic head. He underwent Whipple's resection, and histopathology confirmed a benign insulinoma. Postoperatively, the patient has remained seizure-free and asymptomatic for six months.

This case highlights the importance of considering hypoglycemia, particularly insulinoma, in refractory or atypical seizure disorders. Early recognition based on clinical clues and biochemical testing is vital, as surgical resection can provide complete cure and prevent irreversible neurological damage. [J Assoc Clin Endocrinol Diabetol Bangladesh, 2025;4(Suppl 1): S54]

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