A 64-year-old man was admitted with right-sided headache and confusion. He experienced episodes of left-sided flashing lights evolving to left-beating nystagmus with impaired awareness, suggesting right occipital lobe-onset seizures, for which levetiracetam was prescribed. Between episodes, he had left homonymous hemianopia. Brain MRI showed right occipital lobe swelling with cortical T2-fluid-attenuated inversion recovery (FLAIR) hyperintensity and diffusion restriction (Figure). Blood glucose on admission was 21.8 mmol/L (normal: 3.4–11 mmol/L) and HbA1C was 12.8%, indicating a new diagnosis of diabetes mellitus and raising concern for hyperglycemia-induced occipital lobe seizures. Testing for alternative etiologies including CSF bacterial culture, viral PCRs, cytology, and autoimmune encephalitis antibodies, as well as serum anti-myelin oligodendrocyte glycoprotein (MOG), was negative. After blood glucose normalization, his symptoms resolved. Repeat brain MRI 8 weeks later was unremarkable (Figure). Occipital lobe seizures are a rare but characteristic manifestation of hyperglycemia. Glycemic control generally results in their resolution, emphasizing the importance of prompt diagnosis.

Author Contributions
R.A. Bessemer: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; study concept or design; Analysis or interpretation of data. K.Y Tay: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; analysis or interpretation of data. A. Budhram: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; study concept or design; Analysis or interpretation of data.
content; major role in the acquisition of data; study concept or design; analysis or interpretation of data.

**Study Funding**
The authors report no targeted funding.

**Disclosure**
A. Budhram reports that he holds the London Health Sciences Centre and London Health Sciences Foundation Chair in Neural Antibody Testing for Neuro-Inflammatory Diseases and receives support from the Opportunities Fund of the Academic Health Sciences Centre Alternative Funding Plan of the Academic Medical Organization of Southwestern Ontario (AMOSO). The other authors report no relevant disclosures. Go to Neurology.org/N for full disclosures.

**Publication History**
Received by Neurology December 9, 2022. Accepted in final form March 17, 2023. Submitted and externally peer reviewed. The handling editor was Resident & Fellow Section Editor Whitley Aamodt, MD, MPH.

**References**
Teaching NeuroImage: Hyperglycemia-Induced Occipital Lobe Seizures
Robin Anne Besseme, Keng Yeow Tay and Adrian Budhram
Neurology 2023;101:e852-e853 Published Online before print April 25, 2023
DOI 10.1212/WNL.0000000000207373

This information is current as of April 25, 2023

Updated Information & Services
including high resolution figures, can be found at:
http://n.neurology.org/content/101/8/e852.full

References
This article cites 2 articles, 0 of which you can access for free at:
http://n.neurology.org/content/101/8/e852.full#ref-list-1

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
All Epilepsy/Seizures
http://n.neurology.org/cgi/collection/all_epilepsy_seizures
Clinical neurology examination
http://n.neurology.org/cgi/collection/clinical_neurology_examination
Endocrine
http://n.neurology.org/cgi/collection/endocrine
Epilepsy semiology
http://n.neurology.org/cgi/collection/epilepsy_semiology
MRI
http://n.neurology.org/cgi/collection/mri

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
http://www.neurology.org/about/about_the_journal#permissions

Reprints
Information about ordering reprints can be found online:
http://n.neurology.org/subscribers/advertise