

[PICTURES IN CLINICAL MEDICINE]

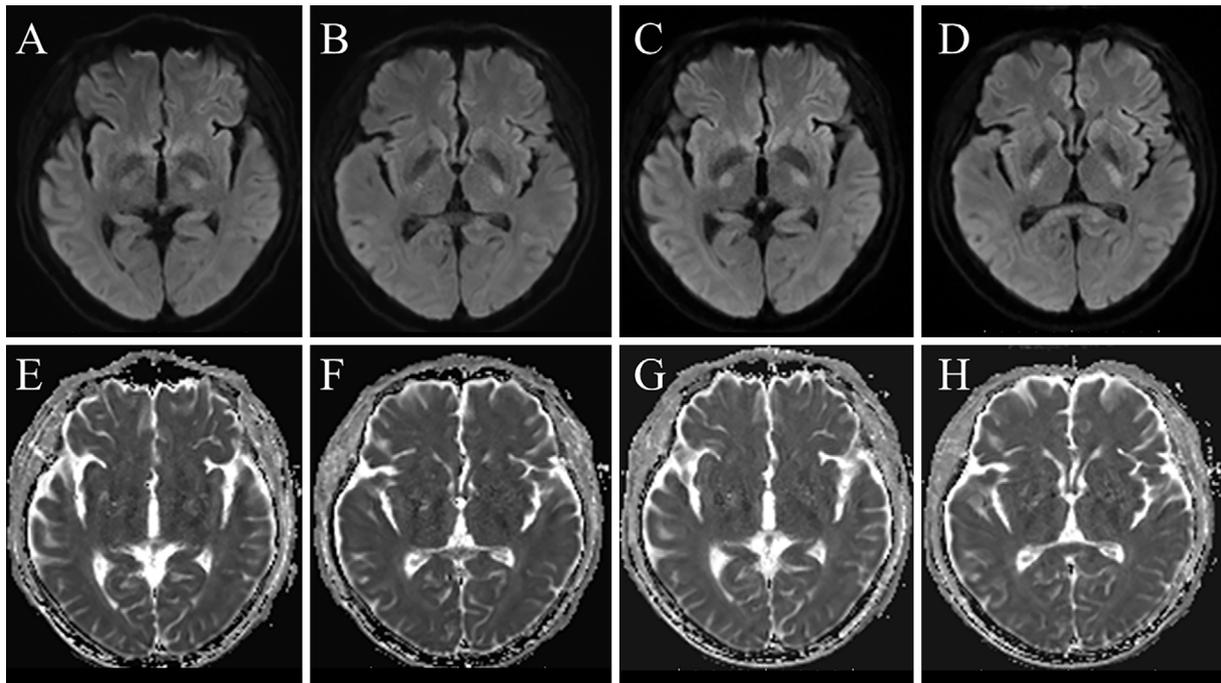
Time Course of Focal Lesions in Hypoglycemia

Tadayuki Takata^{1,2}, Hiroki Yamana³, Hideki Kamada³ and Tsutomu Masaki³

Key words: hypoglycemia, hemiplegia, dysarthria, magnetic resonance imaging

(Intern Med 60: 967-968, 2021)

(DOI: 10.2169/internalmedicine.5494-20)



Picture.

A 69-year-old man was hospitalized for cholangitis and pancreatic cancer accompanied by bleeding and treated with fasting and antimicrobials. On the second day of hospitalization, he developed right hemiplegia. Magnetic resonance imaging (MRI) showed high signal intensity in the diffusion weighted image and low signal intensity of apparent diffusion coefficient in the left posterior limb of internal capsule (PLIC) (Picture A, B, E, F). We suspected acute ischemic changes but could not introduce antiplatelets due to bleeding. After 3 hours, brainstem infarction was suspected due to dysarthria. An MRI showed lesions in the bilateral PLIC (Picture C, D, G, H); his plasma glucose level was below 20 mg/dL, hence a diagnosis of hypoglycemic attack. Dysarthria and hemiparesis were promptly improved by intrave-

nous glucose. Previous reports have displayed post-treatment hypoglycemia MRIs (1-3), but none showed how emerging lesions spread due to hypoglycemia. We show here an accidental documentation of lesion spread that occurred without treatment.

The authors state that they have no Conflict of Interest (COI).

References

1. Lo L, Tan C, Umapathi T, Lim C. Diffusion-weighted MR imaging in early diagnosis and prognosis of hypoglycemia. *AJNR Am J Neuroradiol* 27: 1222-1224, 2006.
2. Aoki T, Sato T, Hasegawa K, Ishizaki R, Saiki M. Reversible hy-

¹Department of General Internal Medicine, Kagawa University Faculty of Medicine, Japan, ²Department of Neurology, Kagawa University Faculty of Medicine, Japan and ³Department of Gastroenterology, Kagawa University Faculty of Medicine, Japan

Received: June 1, 2020; Accepted: September 3, 2020; Advance Publication by J-STAGE: October 21, 2020

Correspondence to Dr. Tadayuki Takata, t-takata@med.kagawa-u.ac.jp

perintensity lesion on diffusion-weighted MRI in hypoglycemic coma. *Neurology* **63**: 392-393, 2004.

3. Johkura K, Nakae Y, Kudo Y, Yoshida TN, Kuroiwa Y. Early diffusion MR imaging findings and short-term outcome in comatose patients with hypoglycemia. *AJNR Am J Neuroradiol* **33**: 904-909, 2012.

The Internal Medicine is an Open Access journal distributed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view the details of this license, please visit (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).

© 2021 The Japanese Society of Internal Medicine
Intern Med 60: 967-968, 2021