

[PICTURES IN CLINICAL MEDICINE]

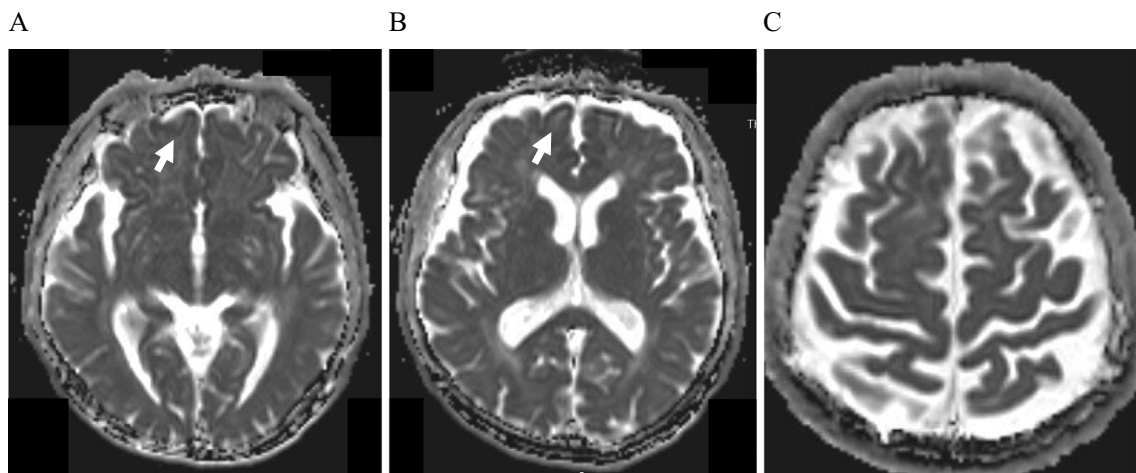
Diffuse Cortical Injury by Hypoglycemia

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Key words: diffuse cortical injury, cortical laminar necrosis, hypoglycemia, magnetic resonance imaging, ribbon-like

(Intern Med 58: 2415, 2019)

(DOI: 10.2169/internalmedicine.2623-19)



Picture.

The etiologies of diffuse cortical injury can be acronymized as CRUMPLED (1) ['C' = Creutzfeldt-Jakob disease, 'R' = reversible cerebral vasoconstriction syndrome; 'U' = uremia; 'M' = mitochondrial; 'P' = prolonged seizure and posterior reversible encephalopathy; 'L' = laminar necrosis and liver disease; 'E' = encephalitis; 'D' = diabetes mellitus (hypoglycemia)]. Among these, hypoglycemia is a relatively new entity that is characterized as bilateral frontal-dominant cortical lesion with white matter abnormalities (2). An 81-year-old man with diabetes (HbA1C 8.2%) and pancreatic carcinoma was referred to our facility because of hypoglycemic coma (32 mg/dL). After his consciousness recovered, he showed a poor cognitive ability [mini-mental state examination (MMSE) 12/30]. He had no seizures. Diffusion-weighted images of brain magnetic resonance imaging (MRI) on admission showed a ribbon-like cortical high-signal lesion at the fronto-parietal cortex with a short apparent diffusion coefficient (Picture A-B, arrows). Fluid-attenuated inversion recovery imaging showed a high signal

at the white matter of the fronto-parietal cortex and temporal cortex (Picture C). MR angiography findings were normal. A second MRI scan on day 14 showed imaging and memory improvement along with good glycemic control.

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

References

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Received: January 10, 2019; Accepted: February 12, 2019; Advance Publication by J-STAGE: May 22, 2019
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