Internal Capsule and Splenial Lesions in Hypoglycemic Hemiparesis

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Picture 1.

A 41-year-old man with a 7-year history of insulin-dependent type I diabetes mellitus complained of right hemiparesis and was referred to our stroke center. Neurological examination revealed that his consciousness was alert, and he had dysarthria and right hemiparesis. Laboratory test values were within normal limits except for plasma glucose level (46 mg/dL). The dysarthria and right hemiparesis disappeared rapidly after glucose infusion. Diffusion-weighted imaging (DWI) (Picture 1A) performed 1 hour after admission revealed high-signal lesions with a reduced

apparent diffusion coefficient (Picture 1B) in the left internal capsule and the splenium of the corpus callosum. T2-weighted image showed no abnormalities. There was no stenosis of the major cerebral arteries on magnetic resonance angiography. The patient was diagnosed as having hypoglycemic hemiparesis with lesions in the internal capsule and splenium, as revealed by DWI. Hypoglycemia should be considered as a cause of hemiparesis and a cause of splenial lesions on DWI (1, 2).

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