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Marchiafava–Bignami disease-like lesions due to central nervous system lupus

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DESCRIPTION

A 24-year-old woman was hospitalised because of haemolytic anaemia, proteinuria and positive antinuclear and anti-ds-DNA antibodies. Six days after admission, she suddenly showed disturbance of consciousness determined to be mild confusion together with difficulty speaking, inappropriate vocalisations and impaired attention. No abnormal findings were found in cerebral spinal fluid. MRI showed the entire corpus callosum to be swollen, with markedly hyperintense signals on T2-weighted imaging

(figure 1A), fluid-attenuated inversion recovery imaging (figure 1B) and diffusion-weighted MRI (DWI) (figure 1C) and an extremely low apparent diffusion coefficient (ADC) value (figure 1D) such as typically found in Marchiafava–Bignami disease (MBD). MBD is an alcohol-associated disorder characterised by demyelination and necrosis of the corpus callosum.¹ Differential diagnoses are acute stroke, viral meningitis, epidermal mass or diffuse axonal injury and demyelination caused by cytotoxic oedema.² The patient was not alcoholic and was diagnosed as having

Figure 1 MRI findings at the onset of central nervous system lupus. Sagittal T2-weighted MRI (A), axial fluid-attenuated inversion recovery image (B) and axial diffusion-weighted MRI (C) show hyperintense signal in the entire corpus callosum (white arrows). Axial apparent diffusion coefficient image (D) shows severe diffusion restriction in the entire corpus callosum (white arrows).

Figure 2 MRI findings in the clinical course. Sagittal T2-weighted MRI shows slightly hyperintense signal in the corpus callosum (white arrows) at 1 month after prednisolone treatment (A), and normal signal intensity in the corpus callosum (white arrows) at 11 months (B).

central nervous system (CNS) lupus. Methylprednisolone pulse (500 mg/day, 3 days) followed by oral prednisolone was effective. She did not show any neurological deficits. Follow-up MRI showed a slightly swollen corpus callosum with mild hyperintense signals at 1 month (figure 2A) and normal findings at 11 months (figure 2B) on T2-weighted images after steroid treatment.

Iguchi *et al* reported a case of systemic lupus erythematosus with disturbance of consciousness that showed transient signal hyperintensity on DWI and a high ADC value in the cerebral cortex.³ Here we present the first case of CNS lupus with MRI images that are compatible with MBD. CNS lupus should be considered in a patient with encephalo-

pathy when MRI shows abnormal intensity of callosum signalling.

Competing interests None.

Patient consent Obtained.

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