A 50-year-old woman was admitted with generalized tonic convulsions and unconsciousness. She had had a headache and high fever for 3 days before admission. Vital signs were normal except for a temperature of 40°C. Neurological examination revealed semicoma (Japan Coma Scale III-2), neck stiffness and flaccid paralysis of all four limbs. Brain CT imaging showed low density areas in the brain (Fig. 1). Central nervous system (CNS) studies revealed an elevated protein concentration (208 mg/dl) without pleocytosis, and no myelin basic protein. No oligoclonal band was detected, and bacterial cultures were negative. On the 3rd hospital day, skin eruptions developed on her face and trunk. Serological studies revealed that the measles IgM antibody was elevated at 11.54 (<0.8) and measles IgG antibody value was 3.4 (<2.0). Brain MRI could not be performed on admission because she was placed on mechanical ventilation. However, since acute disseminated encephalomyelitis (ADEM) accompanied with measles infection was suspected, and she received intravenous γ-globulin therapy (Venoglobulin-IH® total 12.5 g/3 days) without corticosteroids. The clinical symptoms improved continuously after treatment, brain CT/MRI on the 33rd hospital day and spine MRI on the 32nd hospital day showed no abnormal image (Fig. 2).

**Key words:** encephalitis, measles, acute disseminated encephalomyelitis, adult
ADEM is a well-known complication of measles infection (1), however, adult cases are very rare (2). Postinfectious encephalomyelitis is characterized by immune-mediated demyelination, and it is considered that the virus cannot be isolated from the CNS (1, 3). In the present case, using paired CNS studies on the 3rd and 37th hospital day we detected an increase from 0.20 to 2.82 for measles IgG antibody by ELISA. ADEM must be considered as a possible complication of adult measles infection.

References


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