Recurrent Acute Disseminated Encephalomyelitis (ADEM): a case report

Abstract

Acute disseminated encephalomyelitis (ADEM) is an immune-mediated inflammatory demyelinating disease which mainly affects the white matter of the central nervous system. Presentation is acute-onset encephalopathy associated with multifocal neurologic deficits. The onset is usually in the wake of a clearly identifiable febrile prodromal illness or immunization and is associated with prominent constitutional signs and varied degrees encephalopathy. ADEM is usually a monophasic illness but rarely may recur (1).

This 17 year-old boy who was diagnosed to have ADEM in 2013, presented with reduced level of consciousness, rapidly evolving limb weakness which ended up with quadriparesis together with respiratory and bulbar muscle weakness following a 6 day history of fever. MRI findings were compatible with ADEM with extensive white matter signal changes involving the brain and the spinal cord and a diagnosis of recurrent ADEM was made. Patient was initially treated with IV methylprednisolone but due to poor response was followed by plasmapheresis.

Following 5-cycles of plasmapheresis patient improved gradually and by 2 months had made a near complete recovery. He is presently on long-term oral steroids. This case highlights the importance of making the diagnosis and the place of plasmapheresis in treatment of ADEM. He is awaiting MOG serology. MOG antibody has been found in a proportion of patients who present in this manner.

Key words: encephalomyelitis, demyelinating, immunomodulatory