Abstract

Acute disseminated encephalomyelitis (ADEM) is a disease with widespread demyelination of CNS which is immune mediated. Children are most often affected. ADEM in adults and even in elderly patients have been reported with low incidence. Typical presentation involves the acute onset of multifocal neurologic symptoms. The most challenging aspect in a patient with ADEM is, differentiating this entity from a first attack of multiple sclerosis. Most patients show improvement with treatment (about 45%). In fulminant cases, death may occur. In some instances, ADEM may progress into multiple sclerosis.

21 years old female presented with fever with gradually worsening bilateral lower limb weakness and feet numbness from second day of fever. There was no fits, altered behavior, bladder or bowel symptoms, visual or auditory hallucination. There was no past similar episode. She didn't have any features of connective tissue disorder. On examination she was conscious and rational with asymmetrical spastic paraparesis with mild weakness on left upper limb without any sensory deficit. There was no signs of meningism or cerebellar signs.

Her basic blood and urine examinations were normal including ESR,CRP and cultures except for neutrophil leucocytosis. NCCT brain and CSF study were normal. Urgent MRI brain and cervical spine showed evidence of acute demyelinating encephalomyelitis involving subcortical white matter, right thalamus and cervical spinal cord. Prompt treatment was started with IV methyl prednisolone which lead to a rapid recovery.

High clinical suspicion of ADEM is necessary when a patient presents with focal neurological deficit following a febrile illness. ADEM responds well to steroids.