

Differentiate Adem From Ms In Children

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Acute disseminated encephalomyelitis (ADEM) is a demyelinating disease of the central nervous system (CNS) that typically presents as a monophasic disorder associated with multifocal neurologic symptoms and encephalopathy. ADEM is considered an autoimmune disorder that is triggered by an environmental stimulus in genetically susceptible individuals. The diagnosis of ADEM is based on clinical and radiological features. Most children with ADEM initially present with fever, meningeal signs, and acute encephalopathy. The level of consciousness ranges from lethargy to frank coma. Deep and subcortical white-matter lesions and gray-matter lesions such as thalami and basal ganglia on magnetic resonance imaging (MRI) are associated with ADEM. In a child who presents with signs of encephalitis, bacterial and viral meningitis or encephalitis must be ruled out. Sequential MRI is required to confirm the diagnosis of ADEM, as relapses with the appearance of new lesions on MRI may suggest either multiphasic ADEM or multiple sclerosis (MS). Pediatric MS, defined as onset of MS before the age of 16, is being increasingly recognized. MS is characterized by recurrent episodes of demyelination in the CNS separated in space and time. The McDonald criteria for diagnosis of MS include evidence from MRI and allow the clinician to make a diagnosis of clinically definite MS on the basis of the interval preceding the development of new white matter lesions, even in the absence of new clinical findings. The most important alternative diagnosis to MS is ADEM. At the initial presentation, the 2 disorders cannot be distinguished with certainty. Therefore, prolonged follow-up is needed to establish a diagnosis.

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