

A decerebrating female: A rare presentation of acute disseminated encephalomyelitis due to measles.

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Few cases of acute disseminated encephalomyelitis (ADEM) secondary to Rubeola have been reported since the discovery of the Measles, Mumps, Rubella (MMR) vaccine in 1968. ADEM is a rare, rapidly progressive, immune-mediated demyelinating disorder of the central nervous system that usually presents in pediatric populations following routine vaccination or infection. Typically presenting with polymorphous neurological symptoms, ADEM is primarily a diagnosis of exclusion. Magnetic resonance imaging (MRI), however, is usually necessary for diagnosis. Multiple therapeutic options have been proposed, but no treatment guidelines are currently available.

A 70 year-old unvaccinated immigrant female with no past medical history presented to our hospital with right flank pain, dysuria and fevers. She reported recent travel to Brazil and exposure to a 7-month-old infant with fevers and rash. On exam, a right cranial nerve VI palsy was present. On admission, brain computed tomography was unremarkable; brain MRI reported multifocal diffusion restriction and abnormal T2-weighted Fluid Attenuated Inversion Recovery hyperintense signal in the brainstem, bilateral thalami, cerebral hemispheres and cerebellum. Initial cerebrospinal fluid (CSF) analysis was nonspecific. By day 3 she progressed to decerebrate posture, became unresponsive and required endotracheal intubation. Pulse-dose steroids were given for 5 days with no improvement. On day 8 she underwent brain biopsy; pathology was unremarkable. Intravenous Immune globulin (IVIG) was initiated followed by cyclophosphamide. Ultimately, CSF analysis yielded elevated IgM for Rubeola, followed by serology positive for Rubeola IgM, establishing the diagnosis. After initiating plasmapheresis, her neurologic status improved dramatically.

As of July of 2019, since its eradication in 2000, the incidence of measles reported in the United States is at its highest. Currently, the frequency of ADEM secondary to measles in the adult population is unreported. With the novel rise of the anti-vaccine movement, measles must be in the differential diagnosis of patients presenting unexplained neurologic deficits. Although evidence is lacking for the most effective therapy, prompt treatment for ADEM may mitigate long-term neurologic sequelae.

"This research was supported (in whole or in part) by HCA Healthcare and/or an HCA Healthcare affiliated entity. The views expressed in this publication represent those of the author(s) and do not necessarily represent the official views of HCA Healthcare or any of its affiliated entities."