Abstract

Myelin oligodendrocyte glycoprotein (MOG) antibody disease is a distinct immune-mediated and demyelinating disorder, encompassing diverse clinical presentations that may follow a monophasic or relapsing course, with a predilection for targeting the optic nerve during relapses. Classic manifestations include optic neuritis and longitudinally extensive transverse myelitis (LETM), while recent studies have revealed emerging phenotypes such as encephalitis and brainstem syndromes. Advances in MOG antibody testing have significantly enhanced diagnostic precision. Noteworthy instances in the literature highlight MOG antibody-associated MRI-negative LETM and a limited number of cases involving MRI-negative encephalitis.

In this context, we present an intriguing case of MOG antibody disease (MOG-AD) involving a 19-year-old female initially presenting with optic neuritis, followed by the onset of new seizures. Despite initial negative MRI results, the subsequent identification of MOG antibodies in cerebrospinal fluid proved pivotal in establishing a diagnosis of MOG-associated disease.Treatment with IV imm unoglobulin(IVIG)therapy,followed by steroids, led to a marked improvement in her symptoms.This casestrongly emphasizes the importance of MOG antibody screening in various neurological manifestations,even when conventional MRI results are inconclusive. MOG antibodies play a crucial role in facilitating accurate diagnosis and optimizing treatment strategies.