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Can two autoimmune diseases exist together - Multiple sclerosis and SLE?

Dr. (Professor) Mehndiratta Man Mohan[1], Sanghvi Shwetal[2]

[1]*Principal Director, Neurology, Max BLK Hospital, New Delhi*

[2]*MBBS, DLO, DORL, FCPS, Mumbai*

Dear Editor,

I am writing to draw your attention to the coexistence of two autoimmune diseases, multiple sclerosis (MS) and systemic lupus erythematosus (SLE), in the same patient. Although rare, cases of coexistence have been reported in the literature, and diagnosing MS in a patient with SLE can pose a challenge. As our understanding of these diseases' etiologies and immunological disturbances is incomplete, further research is necessary to establish effective treatment strategies that address both diseases. The prevalence of MS and SLE varies across different regions of the world. Higher rates of MS are observed in North American and European countries, while the prevalence of SLE ranges from 52 to 71 cases per 100,000 inhabitants in North America, 28 to 60 cases per 100,000 inhabitants in Europe and Asia.[1-3]

Recent studies, including one by Fanouriakis et al., have investigated the prevalence, clinical characteristics, and prognosis of cases fulfilling the diagnostic criteria for both SLE and MS in the same individual. Out of a total of 728 SLE patients and 819 MS patients, the study identified 9 patients who fulfilled the diagnostic criteria for both SLE and MS, corresponding to a prevalence rate of 1.0-1.2% in each cohort. All patients were women, with an average age at SLE diagnosis of 42.1 years. In five patients, the diagnosis of SLE preceded the development of MS, with a time lag of at least 5 years in four of them. The initial presentation of MS included spinal symptoms in seven patients. All patients had features of mild SLE, with predominantly cutaneous, mucosal, and musculoskeletal manifestations. During the median follow-up of 4 years, 3 patients remained stable, and the remaining 6 experienced a gradual deterioration in their neurological status. SLE remained quiescent in all patients while on standard immunomodulatory MS therapy. The study found that the coexistence of SLE and MS is not associated with a severe phenotype for either entity, but the diagnosis of MS in a patient with SLE can be challenging.[2-3]

Another case study of a 50-year-old woman initially diagnosed with MS and treated with glatiramer acetate exemplifies the difficulties in diagnosing these autoimmune diseases in the same patient. After six months of treatment, the patient developed a systemic disease, leading to multiple serological tests being conducted. Despite negative results for several tests, the lupus anticoagulant (LA) was positive, and the patient was eventually diagnosed with undifferentiated connective tissue disease (UCTD) and anemia. The patient experienced another relapse, which resulted in the development of left-side hemiparesis and two new contrast-enhancing lesions. Three months later, she suffered a hemorrhagic left temporoparietal stroke, followed by a right middle cerebral artery ischemic stroke four months later. Additionally, she developed Raynaud's phenomenon in the upper limbs and had a mild pleural effusion on the chest X-ray. As a result of these developments, the diagnosis of UCTD was reconsidered, and the patient was found to meet the criteria for SLE. The diagnosis of secondary antiphospholipid syndrome (APS) was also established after the reassessment and positive result of the lupus anticoagulant. This case highlights the rarity of the coexistence of MS and SLE and underscores the challenges in diagnosing these two autoimmune diseases in the same patient.[1-2]

Furthermore, the etiology of both diseases is not fully understood, but genetic and environmental factors are believed to play a role. Although the coexistence of these two conditions in the same patient is rare, it is crucial to conduct further research to elucidate the mechanisms involved in their coexistence. Establishing effective treatment options for these patients is critical to improving their quality of life and managing the debilitating symptoms associated with these autoimmune diseases. Rituximab has shown potential as a treatment option for patients with both MS and SLE, but further studies are required to validate its effectiveness. Additionally, as these autoimmune diseases have complex immunological and genetic underpinnings, it is important to continue exploring the relationship between them to develop a comprehensive understanding of their coexistence.[2-3]

In conclusion, the coexistence of MS and SLE in the same individual is rare but has been reported in the literature. It is crucial to establish a definitive diagnosis in patients presenting with symptoms that could indicate multiple autoimmune diseases. However, the diagnosis may not be straightforward, as symptoms can overlap between different autoimmune diseases. A thorough physical examination and a comprehensive battery of serological tests are essential for accurate diagnosis. The treatment of multiple autoimmune diseases can be challenging, and the use of immuno suppressive drugs may further complicate the situation. Therefore, it is crucial to establish an accurate diagnosis to ensure that appropriate treatment is provided. Moreover, the use of immunosuppressive drugs must be carefully monitored to prevent adverse drug reactions and to ensure optimal outcomes. As we strive to improve the management of autoimmune diseases, further research is needed to better

*Corresponding author.
*E-mail id:*editor@accordedu.com

understand the mechanisms involved in the coexistence of multiple autoimmune diseases. Such research could potentially lead to the development of more effective treatment options, ultimately improving patient outcomes.[1-4]

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