Th Cells in Theiler’s Virus Persistence and Pathology

Multiple sclerosis (MS) has been proposed to be an immune-mediated disease in the central nervous system (CNS) that can be triggered by virus infections.

A heterogeneous inflammatory demyelinating disease with viral and autoimmune etiologies, in which the Th cell subsets can play different roles

Regulatory T cells (Tregs) can suppress inflammation, and have been suggested to be protective in immune-mediated diseases, including MS.

However, in virus-induced inflammatory demyelination, although Tregs can suppress inflammation, preventing immune-mediated pathology, Tregs may also suppress antiviral immune responses, leading to more active viral replication and/or persistence.

Potential protective and detrimental roles of Th cell subsets, including Th1, Th2, Th17 and Treg cells, of a viral model for MS is ultimately expected to increase understanding of the pathogenesis of MS.

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