عنوان مقاله:

Neuroinflammatory State of Multiple Sclerosis and Strategies for Biotherapeutics Development

محل انتشار:

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خلاصه مقاله:

Multiple Sclerosis (MS) is the most prevalent neurological disability in young adults. The pathogenesis of MS is characterized by demyelination and neurodegeneration in the central nervous system (CNS) as the ruinous result of chronic activation of the immune system. All clinical forms of MS, including relapsing-remitting multiple sclerosis (RRMS), secondary progressive multiple sclerosis (SPMS), and the primary progressive MS (PPMS), demonstrate inflammation as a common symptom. In various autoimmune diseases like MS, the ability of the immune system to set a balance between pro-inflammatory and anti-inflammatory responses is lost. In this review, the imbalance between pro-inflammatory and anti-inflammatory responses of immune cells and their role in MS progression is discussed. Disturbing the balance of Th۱/Th۲ and Th۱۷/Treg cells and M۱/M۲ phenotypes of macrophages and microglial plays a key role in the development and progression of MS. In this review, we first depict an outline of regulatory immune cells involved in inflammation. Second, we discuss shreds of evidence that confirm how B cells play both pathogenic and protective roles in MS disease. Third, we point out the pros and cons of B cell/T cell-targeted therapies in clinical trials.

کلمات کلیدی:

Autoimmune disease, Central nervous system, Demyelination, Immune cells, Multiple sclerosis, بیماری خودایمنی؛ سیستم عصبی مرکزی (CNS) ؛ کارآزمائی بالینی؛ میلین زدائی, سلولهای ایمنی و مولتیپل اسکلروزیس (ام اس).