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## Poster Presentation

# The Effect of Stress on Neuroinflammation in Multiple Sclerosis

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## *Abstract*

Multiple sclerosis (MS) is a chronic autoimmune disorder of central nervous system. This demyelinating disease affects more than 2.3 million people world wild. Most of patients are young adult. There are many possible triggering factors including infections, toxin, immunization, trauma, sunlight exposure and hormonal variable in pathogenesis of MS. One of the important trigger is stress. There are some substantial evidence that indicates stress can precipitate or worsen symptoms and sign of inflammation in general and more specifically in multiple sclerosis. This review has focused on elucidating the effect of stress on neuroinflammation in multiple sclerosis. The mechanism of stress in MS is not completely understood. There are some proposed theories such as secretion of Corticotropin Relapsing Hormone (CRH) and neurotinensin (NT). These inflammatory factors activate microglia and mast cells leading to maturation and activation of T17 autoimmune cells. Disruption of Blood Brain Barrier (BBB) cause T17 cells to enter in to the CNS. Finally brain inflammation will be worsened. The pathway of stress neuroinflammation can be considered as a therapeutic target for M.S patients. Some evidences indicate Glatiramer Acetat, stress management therapy, Diazepam, Alprazolam and CRH antagonists can reduce brain inflammation So the mechanism of stress in pathogenesis of M.S can be novel therapeutic target.

***Keywords:*** Stress, Neuroinflammation, Multiple Sclerosis

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