New drug protects nerve cells from damage in mice

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Multiple sclerosis (MS) is a chronic inflammatory disease of the brain and spinal cord. Individuals with MS develop progressive neurological disability, and this is thought to be caused by degradation of the nerve cells.

It is therefore hoped that treatments that protect nerve cells might help individuals with the progressive form of MS. Data to support this hypothesis has now been generated using a chronic progressive EAE mouse model of MS by Howard Weiner and colleagues at the Brigham and Women's Hospital, Harvard Medical School, Boston.

In the study, treatment of mice after the onset of disease with a water-soluble agent known as ABS-75, which has antioxidant properties and blocks the stimulation of the subset of nerve cells that express the NMDA receptor, markedly reduced disease progression.

This beneficial effect was associated with decreased nerve cell degradation, and a similar protective effect was observed for ABS-75 when it was added to cultured nerve cells exposed to damaging reagents. These data led the authors to suggest that agents similar to ABS-75 might provide a new approach to treating individuals with MS and other neurodegenerative disorders.

Source: Journal of Clinical Investigation