Reduce Inflammation and Hypothalamic Disorders in Patients with Multiple Sclerosis

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Abstract

Introduction: Multiple sclerosis (MS) and its animal model, experimental autoimmune encephalomyelitis (EAE), is a chronic inflammatory disease and degenerative myelin in the CNS. With respect to being the main cause of this disease is unknown; the most common treatments for the disease (MS) with the aim of suppressing harmful inflammatory responses are used. Neurotransmitters having immunosuppressive properties and neuroprotection, is a good candidate for the treatment of inflammatory diseases and neurodegenerative. On the other hand, can be improved with composing to other anti-inflammatory. The aim of this study is the effects of noradrenaline and serotonin and vitamin B-12 in reduction of hypothalamic disorders in MS. Materials and Methods: After infusion of EAE in rats with intraperitoneal injection of tedium bromide and create MS-like symptoms in rats and dividing them into groups, control group and experimental group 1: Receiving combination of noradrenaline (0.1 µg/L) By injection into hippocampus by stereo taxi and injection of estrogen on the back of the neck 0.1 (mg Dissolved in peanut oil) and receiving vit B12 (0.2 mg), and experimental 2: noradrenaline with dose 0.51 µg/L and vit B12 (0.5 mg) For the same amount received estrogen .and experimental 3: Receiving interferon for treatment of common comparable to the proposed treatment. Then the rats were tested after treatment period of were evaluated microscopically and macroscopically and functional tests and tissue culture to reduce inflammation and lesions. Results: The results showed that the combination of estrogen and vitamin B-12 and noradrenaline meaningful decrease for the number of multiple sclerosis hypothalamic disorders .and reduction of hypothalamus inflammatory (By studying the histological slides). Conclusion: This method can be used as an effective treatment in reducing inflammation of the CNS and hypothalamic disorders in these patients and as a treatment protocol can be available to medicine society.

Keywords: Hypothalamic disorders, Multiple sclerosis, Noradrenaline, Estrogen, Vitamin B12

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