

عنوان مقاله:

Effect of ghrelin on catalepsy and Histology and Immunohistochemistry of tyrosine hydroxylase in the MPTP on Male NMRI Mice Model of Parkinson's Disease

محل انتشار:

ششمین کنگره بین المللی توسعه و ترویج علوم و فنون بنیادین در جامعه (سال: 1397)

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خلاصه مقاله:

Background: Ghrelin, a peptide hormone, has protective effects on neuronal cells. 1-Methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) causes nigrostriatal dopaminergic neurotoxicity in rodents; previous studies suggest that activated microglia actively participate in the pathogenesis of Parkinson's disease (PD) neurodegeneration. The present study aimed to investigate the effects of intermittent ghrelin behavioral and histology and immunohistochemistry in a mice male model of PD induced by intraperitoneal injected MPTP. Materials and Methods: Male NMRI mice were randomly allocated to 8 groups (n=12) and were treated for 28 days. One day after the last injection MPTP of start catalepsy until 28 days, their brains were removed from the skull for histology (H&E), immunohistochemistry of tyrosine hydroxylase (TH), using the MPTP male mice PD model. Results: MPTP which selectively targets dopaminergic neurons in the SNpc to inhibit complex I activity, is administered to mice, there is a reduction in dopaminergic neurons in the SNpc. Administration of MPTP caused significant motor behavioral abnormalities in mice when tested on the 1,7,14,21,28 th day. The density of H&E cells in the SNpc was significantly decreased in the parkinson's group (P) compared with that in the control (C). The results of TH studies showed treatment with MPTP significantly reduced the number of TH+ neurons in the SNpc compared with that of the control mice. In treat groups with ghrelin were the number of dopaminergic neurons increased. Conclusions: Ghrelin treatment for both motor and non-motor symptoms relief with a reduced, the possible role of ghrelin in slowing or preventing Parkinson's disease progression ghrelin acts on SNpc neurons.

کلمات کلیدی:

Parkinson's disease ; Catalepsy; Histology; Immunohistochemistry

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