



Poster Presentation

Role of Brain-Derived Neurotrophic Factor in Pathogenesis and Treatment of Post-Traumatic Stress Disorder

Maryam Borhani-Haghghi^{1,2*}, Fatemeh Alipour¹, Parastoo Barati¹

¹Shefa Neuroscience Research Center, Khatam Alanbia Hospital, Tehran, Iran

²Department of Anatomy, Tehran University of Medical Sciences, Tehran, Iran

Published: 23-24 November, 2016

Abstract

Post-traumatic stress disorder (PTSD) is a syndrome causing from a severe traumatic happening that leads to threatened death or injury. PTSD is associated with changes in limbic, hippocampal, and prefrontal cortical region function due to changes in synaptogenesis, dendritic modifying, and neurogenesis. Changes in neuron in PTSD patients result from pathophysiological disturbances in inflammatory, metabolic, and apoptic processes. Brain-derived neurotrophic factor (BDNF) is a neurotrophin that functions as survivorship factor for selected neurons of central nervous system and it can regulate synaptic plasticity, memory processes and behavior in the limbic system. Failure to produce BDNF in the brain can lead to a variety of central nervous system disorders. Researches indicate that impairment in the regulation of neural BDNF occurs in conditions of PTSD. It is found that level of BDNF in serums of PTSD patients were lower as compared to related controls. It is suggested that BDNF may be involved in pathophysiology of PTSD and enhancing BDNF-related signaling and restoring level of BDNF in serum may be considered as consequently therapeutic.

Keyword: Patients, Brain-derived neurotrophic factor, Post-traumatic stress disorder

***Corresponding Author:** Maryam Borhani-Haghghi

E-mail: borhanihm@gmail.com