The 2nd International Neuroinflammation Congress and 2nd Student Festival of Neurosience

Shefa Neuroscience Research Center, Tehran, Iran, 17-19 April, 2018

The Neuroscience Journal of Shefaye Khatam

Volume 6, No. 2, Suppl 1

Poster Presentation

The Relationship Between the TNFα of the Microglial Cells and the Multiple Sclerosis

Milad Ashrafizadeh[1*], Vahab Asemani[1], Sedighe Abdollahzadeh[2]

[1]Department of Basic Science, Veterinary Medicine Faculty, Tabriz University, Tabriz, Iran

[2]Department of Basic Science, Molecular Genetics Faculty, Zahedan University, Zahedan, Iran

Published: *17 April, 2018*

Abstract

TNFα is an inflammatory cytokine and the caspase and apoptotic processes can be activated by TNFα There are two classes of TNFα (solTNF and tmTNFα) which are important from the receptor aspect, so that solTNFα and tmTNFα can attach to the TNFR1, but tmTNFα just attaches to the TNFR2. Microglia cells are resident immune cells of the central nervous system (CNS) and they respond to the injury and infection and also remove the cellular debris. In the neurological disorders, the microglia cells are activated and they secrete cytokines such as TNFα Some neurological disorders are associated to the TNFα of activated microglial cells and one of the common diseases is multiple sclerosis (MS). The TNFα which is secreted by microglial cells, functions through various mechanisms and causes the multiple sclerosis. One of the ways would be that TNF increases the caspase 3 and 8 and stimulates the neuronal destruction. Furthermore, this cytokine changes the levels of the proteins such as tau protein and impairs the synaptic formation. In this article, we will investigate the association between this cytokine and MS.

Keywords: TNFα, Microglial Cells, Multiple Sclerosis

****Corresponding Author:*** Milad Ashrafizadeh

E-mail: *dvm.milad73@yahoo.com*

[Downloaded from shefayekhatam.ir on 2026-09-16]