



# The 1<sup>st</sup> International Neuroinflammation Congress and 1<sup>st</sup> Student Festival of Neuroscience

Shefa Neuroscience Research Center, Tehran, Iran, 11-13 April, 2017

*The Neuroscience Journal of Shefaye Khatam*

Volume 5, No. 2, Suppl 2

## Poster Presentation

### Effect of Serum Zinc Element in Epilepsy Patients

Zahra Ghane<sup>1,2\*</sup>, Nafise Bahrami<sup>1,2</sup>, Malihe Hassan nia<sup>1,2</sup>, Yasaman Behmanesh<sup>1,2</sup>

<sup>1</sup>Islamic Azad University, Mashhad Branch, Mashhad, Iran

<sup>2</sup>Member of Mashhad Neuroscience Research Group of Islamic Azad University, Mashhad Branch, Mashhad, Iran

**Published: 11 April, 2017**

#### Abstract

Epilepsy is a disorder categorized by recurrent seizures and leads to changes in neuronal death and neurogenesis. Recently the search for new targets in the therapy of epilepsy has focused on brain inflammation because brain inflammation and the associated blood brain barrier damage appears to be basic part of epilepsy pathophysiology-erythropoietin (EPO) regulates biological processes counting neuroprotection and neurogenesis in several diseases, such as epilepsy and neurological disorder in epilepsy. Significant low serum level of zinc reported in recent investigations. One of the important trace elements is zinc and high level of zinc observed in Hypothalamus. The high level of zinc observed in hypothalamus. Zinc is one of the active cofactor in several enzyme systems and have important role in regulating inflammatory and biological activity in central nervous systems. Since in the epileptic brain, the assemblage of GABAA receptors are finely zinc delicate in hippocampus, and the emergence of a zinc-delivery system is unique in the epileptic hippocampus, the formulation of a hypothesis suggested that zinc release during repetitive initiation of the dentate gyrus may lead to a failure of inhibition seizure initiation. at least This could contribute to the limbic hyper excitability and temporal lobe epilepsy. Zinc is a substantial trace element and have mildly beneficial effects in children with stubborn epilepsy, therefore further investigation especially on oral medications for intractable epilepsy in children recommended. According to lecture, therapy with Pharmaceutical supplements will be used as a reliable option in the treatment of obstinate epilepsy.

**Keywords:** Zinc, Epilepsy, Inflammation

**\*Corresponding Author:** Zahra Ghane

**E-mail:** z.ghane1996@gmail.com