



# 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

### Herbal Medicine “Ginseng” as Therapy and Prevention of Parkinson’s Disease

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**Published: 11 April, 2017**

#### Abstract

Parkinson’s disease (PD) is the second most common neurodegenerative disorder after Alzheimer’s disease. It is a chronic and progressive disease, and mostly afflicts elderly. PD starts with sudden onsets and the exact cause of the disease is still unknown, however there are some early symptoms that can help us to diagnose the disease and ameliorate its effects. PD is a multi-factorial disease, so finding a certain cure is difficult, but recent studies about the role of neuroinflammation and oxidative stress in PD has opened a new window. In fact, in PD inflamed microglia produce the free radical “nitrogen monoxide” which causes neurodegeneration, and neurodegeneration in Substantia Nigra reduces the secretion of dopamine which results in motor symptoms of the disease. These findings clarify that anti-oxidants and anti-inflammatory mechanisms can be very helpful in the PD treatment. Recent research about prevention or reduction of the effects of PD using herbal anti-oxidant medications are promising. One of the herbal medications thought to be effective in PD is Ginseng extract. Studies show significant anti-inflammatory effects of Ginseng which can prevent formation of inflamed microglia at the first stage, also Ginseng changes antioxidant enzymes activity and nitric acid production resulting in restriction of free radicals and controlling oxidative stress. Based on these facts Ginseng is a suggested neuroprotective therapy for PD, but of course using it as an accepted therapy needs enough trials with reassuring results.

**Keywords:** Parkinson’s disease, Ginseng, Neuroinflammation, Oxidative stress, Herbal medication

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