



## Natural Products in Treatment of Neurological Disorders

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**ABSTRACT:** Nervous system is the control centre of body and hence any problem with this system may lead to inefficiency in control and communication of body. Neurological disorders can be caused due to a biochemical alteration or due to an injury in nervous system. One sixth of world's population have fallen prey to the disorders. Alzheimer's disease, Parkinson's disease, epilepsy are few of the examples. There are various treatments available for these disorders which include Botox injections and deep brain stimulation but the mentioned treatments have side effects like headache, weakness, loss of appetite, urinary tract infections, muscle stiffness, strokes, brain hemorrhage etc. After observing these side effects there is a need of natural medications or therapies. There are natural products which can be brought to use like Curcumin from *Curcum longa* which acts as neuroprotectant and can treat AD and PD. Epigallocatechin-3-Gallate from *Cammellia sinensis* whose dried leaves are popularly used as green tea can be a prevention for neurodegenerative diseases. Gastrodin from *Gastrodiaelata* treats epilepsy. The stem bark extract of the *Acantophanax senticosus* increases monoamine levels, the ethanolic extract of *Centella asiatica*, acetone extract of leaves of *Ginkgo biloba* and methanolic extract of galls of *Quercus infectoria* etc are particular products for PD treatment. In some cases the therapeutic approach to Parkinson's disease is by elevating levels of DA by either the inhibition of monoamine oxidase or by the increase in concentration of precursor of DA by administering L-DOPA. Also there are compounds which are agonists on DA receptors. For example agonists of the nicotinic cholinergic receptor therefore they compensate for the low levels of Ach (neurotransmitter). Two major alkaloidal natural products are known to have this effect, arecoline<sup>5</sup> and pilocarpine<sup>6</sup>. The interaction between acetylcholine and the acetylcholinesterase (AChE) is an important binding process in order to understand the relationship of AChE inhibitors. The positively charged nitrogen region of inhibitor binds to an aspartate residue. Natural products have been found to eradicate the cause of disease unlike the synthetic treatment and do not have side effects so in this paper we have tried to highlight the functioning of these products so that they can be used as replacement. © 2016 iGlobal Research and Publishing Foundation. All rights reserved.

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