Letter to Editor

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Evaluation of the effect relationship of Genetically Parkinson's Disease (PD) with Cinnamon in Mice

Ali Ahmadi[1]* and Dariush D Farhud[2]

[1]*Student of Research Committee, Department of Medical Sciences, Islamic Azad University, Iran*

[2]*School of Public Health, Tehran University of Medical Sciences, Iran*

INTRODUCTION

Dear Editor,

Parkinson's disease (PD) is a neurodegenerative disease characterized by the gradual damage and destruction of nerve cells in the black body of Nigra pars compacta (SNc), which leads to impaired movement and is accompanied by tremors, stiff muscles and poor balance. Because PD is a progressive disease, the symptoms start gradually, starting on one side of the body and affecting the other. PD-related disorder and disability require a multidisciplinary approach to effective management to maintain daily activity and life expectancy. It has been shown that cinnamon can play a role in the treatment of this disease. Mehraein et al. In an article measuring the effects of cinnamon on mice with Parkinson's, cinnamon acts as a powerful free radical scavenger. Cinnamon and its derivatives, cinnamaldehyde act as a powerful antioxidant and anti-inflammatory. Cinnamon prevents the accumulation of a protein called tau in the brain, which is a sign of Alzheimer's disease. Cinnamon is metabolized in the liver to sodium benzoate so it can cross the blood-brain barrier. These findings show that cinnamalde is an antioxidant. Normal SNc neurons may protect against Parkinson's disease.

Bradykinesia is stiffness, rest, tremor, and postural instability. Because PD is a progressive disease, symptoms begin gradually, starting on one side of the body and affecting the other. Kalia et al. In an article, they measured the effects of cinnamon on patients with Parkinson's disease. The progressive nature of the disease usually causes various pains for the patient in walking and performing daily activities such as eating, bathing and toilet. The progressive nature of the disease usually causes various pains for the patient in walking and performing daily activities such as eating, bathing and toilet. In addition to these problems, people with PD often experience depression, sleep disturbances, difficulty chewing, swallowing, and speaking. PD-related disorder and disability requires a multidisciplinary approach to effective management to maintain the daily activities of the subject of life and life expectancy. Thus, the subject of PD includes high quality care that includes oral medications, physiotherapy, educational and environmental modifications, psychotherapy and surgery. Oral dopaminergic drugs help the patient to control motor and non-motor symptoms for a while. This time is called the controlled symptoms of the drug in a timely manner, while the inactive time is when the drug is no longer effective and symptoms such as tremor due to pressure, bradykinesia and stiffness reappear. Optimal timely maintenance is important for physiotherapy intervention to improve muscle strength and mobility. However, as the disease progresses, oral dopaminergic drugs are unable to prevent symptoms before the next dose of a drug called "burnout".

Oral dopaminergic drugs help the patient to control motor and non-motor symptoms for a while. It is essential for physicians to timely change the medication for which the physician may change the dose or frequency of medication. Also in this model, a 71-year-old woman over 15 years of age was diagnosed with PD. Cinnamon + honey therapy showed clinical improvement in "timely" prescribed with oral medication. The potential benefit of cinnamon may be due to its neurotrophic, light-protective and anti-inflammatory properties of cinnamon in neurons and glial cells of the brain. However, high quality-controlled trials are further necessary to evaluate the potential benefit of cinnamon in a PD-treated patient.

Another study described Parkinson's disease as the most common neurodegenerative movement disorder caused by the death of dopaminergic neurons in the pars Compact (SNpc) and the loss of dopamine in the striatum. No effective treatment is available to prevent the progression of this devastating disease. It is clear that chronic neuritis, loss of supportive molecules in the brain, and accumulation of α-synuclein (α-syn) are critical to the manifestation

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Address for correspondence: Ali Ahmadi, Student of Research Committee, Department of Medical Sciences, Islamic Azad University, Iran

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of nigrostriatal pathology in PD. Interestingly, cinnamon can correct these pathological aspects. Phan et al. The main ingredient in cinnamon is cinnamaldehyde, which is converted to cinnamic acid by oxidation. In the liver, this cinnamic acid is beta-oxidized to benzoate, which is present as sodium benzoate (NaB) or benzoyl-CoA. Small amounts of benzoate, a direct metabolite of cinnamic acid, are also excreted in human urine. Recently, we have shown that oral consumption of ground cinnamon increases NaB levels in the serum and brain of mice Jana et al. NaB is medically important because it is an FDA-approved drug other than ucephan It is used to treat metabolic disorders associated with hyperammonemia, such as urea cycle disorders in children, and is also widely used as a preservative in a wide range of foods and cosmetics, although at higher concentrations, NaB can be toxic. But 2% NaB solution in drinking water has been reported to be safe for lifelong treatment in rats without any significant side effects.