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Poster Presentation

Role of Essential Trace Elements in Parkinson's Disease

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Abstract

Parkinson's Disease (PD) is a chronic, progressive, neurodegenerative disorder with motor and non-motor signs and symptoms. PD is caused by idiopathic degeneration of dopamine-producing cells in the substantia nigra, located in the midbrain. Recently, Trace elements have been recognized to play an important role in the development of Parkinson's disease (PD). The aim of this review was to assess the role of essential trace elements in Parkinson's disease. Serum zinc and copper have been found did not differ between the PD patients and control group. Its suggested that serum levels of zinc and copper do not play any role as risk factors for PD. Selenium is an important trace element which works as an anti-oxidant substance. Studies suggest that Selenium could be involved in the pathophysiology of PD and that the mineral, if used in appropriate doses, could protect against this disease. Iron and cadmium has been suspected to contribute to PD because they are known to promote oxidative damage. Studies showed that in PD patients Fe concentrations were significantly increased. It's have been found that the serum zinc levels were associated with the risk of Parkinson's disease, and low serum zinc levels may be an important risk factor for PD. the parkinsonism and other neurological effects can be resulting from chronic Mn exposure. This study highlights the implication of essential trace elements in Parkinson disease and provide us with the knowledge how the mineral effect on PD.

Keywords: Parkinson's Disease, Trace Elements, Brain

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