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Poster Presentation

Pioglitazone in Early Parkinson: A Review Study

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Abstract

More than 10 million people worldwide are living with Parkinson's disease (PD). The ages of people who have Parkinson are variable, usually between 50 and 80 years, the average of them is 55 years old. The symptoms of PD are progressive, and within 10 to 20. It happens when dopaminergic neurons were being degenerate. Peripheral and central inflammatory and oxidative stress pathways play a complex role in PD years. Dopamine sends massages the part body of brain that controls movement in Parkinson's patient. The mount of dopamine produced in the brain decreases; due to a person unable controls movement normally who has tremor of the parts of body. Other signs: bradykinesia, rigidity, postural instability. The reason for selecting Pioglitazone is that the inflammation effect. Pioglitazone is approved by the US Food and Drug Administration (FDA) Pharmacologic category of Pioglitazone is antidiabetic agent, Thiazolidinedione; it is the peroxisome proliferator-activated receptor γ (PPAR-γ) agonists. Receptor γ that regulates cellular functions such as lipid metabolism, cell growth and inflammation PPAR-γ coactivator that controls mitochondrial biogenesis and oxidative stress. It might put neuroprotective effects on Parkinson's patients. The PubMed was searched for surveys published during the recent 5 years. Chronic Pioglitazone treatment in early Parkinson's disease improved mitochondrial function in various animal models and it decreased Inflammation in some nerve cells. Study epidemiological found a person took Pioglitazone who would have lower risk of PD but Biomarker test hadn't significant data one effectiveness of Pioglitazone. There are many theories about effectiveness of Pioglitazone but a clinical trial didn't observe Pioglitazone as potential neuroprotective agent. Suggesting that more clinical trials and targetable research are needed in future.

Keywords: Parkinson, Pioglitazone, Neuroinflammatory

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