Commentary

The Early Indication and Prevention of Parkinson's Disease

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DESCRIPTION

Parkinson's Disease (PD) is a long-term, progressive neurological disease with both motor and non-motor symptoms. Parkinson's disease is expected to impact ten million people worldwide. Parkinson's disease primarily damages dopamine-producing neurons in the substantia nigra, a part of the brain. Parkinson's disease is a kind of nervous system disorder which affects the movement. Low dopamine levels in the brain induce the symptoms. Parkinson's disease manifests itself in a progressive manner. They usually begin with a little tremor in one hand and a feeling of stiffness throughout the body, but some patients may also develop other symptoms such as dementia. It happens when nerve cells in the brain don't create enough dopamine, a brain neurotransmitter. While there is no cure for Parkinson's disease, many therapies have been discovered to alleviate its symptoms. Physicians can now treat more than only the main motor symptoms of parkinson's disease with surgical, pharmacological, and therapeutic treatments.

The early indications of parkinson's disease:

• Changes in movement, such as tremors.
• Impaired coordination and balance, which can lead a person to drop items or fall over.
• A lack of olfactory perception.
• When walking, a person's gait varies, and he or she leans forward somewhat or shuffles.
• Changes in the nerves that govern facial muscles result in fixed facial expressions.
• A quiver in your voice or a hushed tone.
• Handwriting is more cramped and smaller.
• Sleep disturbances caused by restless legs and other issues.
• According to a 2015 study, rapid eye movement sleep disorder may be a strong predictor.

While the etiology of parkinson's disease is unknown, it is believed to be multiple; with genetic and environmental factors contributing to disease genesis. By structurally modifying Deoxyribonucleic Acid (DNA), the combined effect of genetic and environmental variables may influence the onset of human disease (DNA). Caffeine, for example, is an adenosine receptor antagonist that boost dopamine neurotransmission and has been linked to a lower risk of parkinson's disease. Pesticides and heavy metals cause gene variants linked to familial parkinson's disease, resulting in parkinson's disease-related mechanisms such as mitochondrial malfunction, oxidative stress, and protein breakdown impairment. Parkinson's disease susceptibility may also be influenced by demographic characteristics such as age, gender, and culture. Parkinson's disease is caused by aging, which is a key risk factor. Not only has the prevalence of parkinson's disease increased with age, but the majority of cases appear between the ages of 60 and 65. Men are more likely than women to develop parkinson's disease. Estrogen may operate as a neuro-protective agent, and women with a high lifetime contact from factors like long fertility windows and multiple births have a lower chance of parkinson's disease.

Because it is one of the few alterable causes of parkinson's disease, Drug-Induced Parkinsonism (DIP) should be included in the differential diagnosis. Elderly women, patients with several comorbidities, and patients taking multiple drugs at high doses for long periods of time are all at-risk populations for DIP. Drugs with dopamine receptor–blocking qualities, such as antipsychotics thiothixene, risperidone, and haloperidol, are the most usually related with Drug-Induced Parkinsonism (DIP). The presence of non-motor comorbidities, such as depression, anxiety, lethargy, constipation, anosmia, and sleep disturbances, can lead to an early diagnosis. Patients who receive adequate therapy once a diagnosis of parkinson's disease is confirmed may have a life expectancy comparable to that of unaffected individuals. There are no specific tests that may be used to confirm a parkinson's disease diagnosis.

Although it is unlikely to prevent parkinson's disease, several long-term habits may help reduce the risk.

• Staying away from toxins.
• Stay away from head injuries and physical activity on a regular basis.
• Dietary considerations.

Parkinson's disease is a chronic illness that causes neurological alterations throughout the body. Parkinson's disease is unknown to specialists, however inherited and environmental variables may play a role. Professionals have discovered clear correlations between previous traumatic brain injury and toxic exposure. Regular physical activity, a balanced diet, and avoiding pollutants may all aid in the prevention of parkinson's disease, although there is currently no data to back up this theory.

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