



Parkinson's disease: causes & cures

European Parliament, 8 November 2018



Current treatment of Parkinson's disease – Per Svenningsson, Karolinska Institute

Abstract

Parkinson's disease is a proteinopathy that results in degeneration of dopamine neurons. This results in bradykinesia, rigidity and resting tremor along with several non-motor symptoms. Reduced dopamine neurotransmission can be symptomatically ameliorated by dopamine receptor agonists, inhibition of dopamine degradation mediated by monoamine oxidase type B (MAO-B) and/or catechol-O-methyl transferase (COMT), or replacement with L-3,4-dihydroxyphenylalanine (L-DOPA). Unfortunately, wearing-off, ON-OFF fluctuations, dyskinesias and hallucinations are frequent complications. At later stages of the disease, infusion therapies with apomorphine and duodopa as well as deep brain stimulation is used. Several trials with disease modifying therapies are ongoing. A raised awareness of non-motor symptoms, eg psychosis and dementia, has led to the development of therapies and clinical trials targeting these symptoms.



Per Svenningsson is Professor and Senior Physician at the movement disorders section of the Neurology department at Karolinska Institute. Besides being a medical doctor, he is trained in basic pharmacology. He has been the principal investigator of several clinical trials for the development of novel therapies against various symptoms of Parkinson's disease. The studies include novel therapies for disease modification and against levodopa-induced dyskinesias and dementia.
