

Medical treatment of dyskinesia is as effective as deep brain stimulation (DBS)

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The definition of dyskinesia as a motor complication in the course of Parkinson's disease includes a spectrum of involuntary movements, mostly dystonic or choreic features. The present of dyskinesia is influenced by intake of levodopa. The important pathogenetic factors of dyskinesias are nigral dopaminergic denervation, impairment of both nigrostriatal storage and release mechanisms, nonphysiological (pulsatile) dopaminergic stimulation with levodopa treatment which lead to abnormal striatal plasticity and circuitry changes. The occurrence of dyskinesias relates to decrease of quality of life and contributes to the risk of falls. Understanding the pathogenesis of dyskinesias has contributed to the development of a set of therapeutic strategies like the optimization of ongoing dopamin-centered treatment, the utilization of glutamate antagonists, the exploration of the benefits of antipsychotic agents, using enzyme blockers and dopamine agonists and other drugs and methods. The aim is to avoid pulsatile therapy and to use a more physiologic continuous dopaminergic stimulation as the key factor for decreasing of dyskinesias. So far, the best option for that is apomorphine continuous subcutaneous infusion and infusion of levodopa-carbidopa intestinal gel. In this talk will be presented interesting up-to date evidences highlighting the potential possibilities and effects of medical treatment in reducing the occurrence of dyskinesia to convince you that medical treatment of dyskinesia as effective as deep brain stimulations.