SHOULD LEVODOPA BE THE INITIAL THERAPY FOR PD? NO

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In contrast to the last decade it is no longer believed that levodopa and dopamine may be neurotoxic even if the degradation of dopamine may lead to oxidative stress. The so-called priming, i.e. the occurrence of dyskinesia even after a levodopa challenge when regular levodopa is applied, may exist but seems to be not a real clinical problem in the treatment of PD patients.

Nonetheless, there are good arguments not to start with levodopa in the treatment of PD patients. Levodopa has a short plasma half life time and is certainly able to overcome motor problems in the elderly at the onset of PD symptoms. Young patients, howcver, should not start with levodopa because of the occurrence of wearing off and later of dyskinesia. Motor complications are age-dependent, i.e. the younger the patients the more prone they are for dyskinesia. Thus, these patients should receive a long-acting non-ergot dopamine agonist which guarantees a physiological tonic dopamine receptor stimulation. Early initiation and use of high doses of levodopa may cause addiction, levodopa dysregulation syndrome, especially when fast-acting levodopa is used. In contrast it has to be stated that the use of dopamine agonists may lead to impulse control disorders for which all patients should be monitored. Certainly, a majority of patients will be treated over time with a combination therapy of levodopa and dopamine agonists.