



PARKINSON'S DISEASE NEWS

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9th September 2013 - New review

FUTURE FORMS OF L-DOPA FOR PARKINSON'S DISEASE

The forms of L-dopa presently being developed are likely to completely change the way that L-dopa is used. They include Inhaled L-dopa, Dual layer L-dopa, Subcutaneous L-dopa, L-dopa prodrug, Melevodopa and AcuForm.

Mucuna Pruriens has been a source of L-dopa since ancient times. As a drug, L-dopa started out as a treatment on its own. Sinemet and Madopar combined L-Dopa with a decarboxylase inhibitor in order to reduce the loss of L-dopa before it was used. In order to spread out the effect of L-dopa, controlled release versions of Sinemet and Madopar were then produced. Stalevo added Entacapone to that combination. Entacapone is a COMT inhibitor, which is able to slow down the degradation of L-dopa. An improved version of Stalevo called ODM-101 is already being developed. Parcopa is an orally disintegrating combination of L-dopa and carbidopa, which is the same combination as Sinemet. Duodopa is a combination of L-dopa and carbidopa in the form of a gel, which is administered throughout the day using a portable pump directly into the small intestine through a surgically placed tube.

New forms of L-dopa presently being developed for the treatment of Parkinson's Disease are:

Inhaled L-dopa (CVT-301), which is taken using an inhaler, enables a far quicker effect than existing forms of L-dopa.

Dual layer L-dopa (IPX054), which includes the immediate release version of L-dopa and the controlled release version, is better than existing forms of L-dopa.

Subcutaneous L-dopa (ND0612) is a combination of L-dopa and carbidopa in a liquid formula administered continuously sub-cutaneously through a patch pump.

L-dopa prodrug (XP21279) is rapidly converted in to L-dopa only after it has been absorbed. This facilitates active and efficient absorption into the body.

Melevodopa is the methyl ester of L-dopa. As it is a soluble neutral derivative it overcomes the insolubility and acidity of L-dopa when used in continuous intravenous infusions.

AcuForm in combination with L-dopa and carbidopa (DM-1992) makes use of the properties of polymers that help to deliver L-dopa over a longer period of time.

<http://www.viartis.net/parkinsons.disease/news/130909.pdf>

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