



PARKINSON'S DISEASE NEWS

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

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NASAL GEL MAGNIFIES PARKINSON'S DISEASE DRUG EFFECTS

A nasal gel has been developed that can greatly increase the bioavailability of ropinirole. Ropinirole (Requip), which is a dopamine agonist for the treatment of Parkinson's Disease normally has low bioavailability when it is taken orally. For more information go to : <http://www.rxlist.com/requip-drug.htm>

Thermoreversible nasal gels were prepared and formulations were evaluated for various parameters such as gelling time, gelling temperature, gel strength, adhesive force, diffusion, and bioavailability.



Formulations displayed gelling at nasal temperature and the time was found to be less than the time taken to clear the gel. The time the gel spent nasally increased due to mucoadhesion and increased gel strength. The nasal gel formulations showed drug release between 56% and 100% within 5 hours. The gel also had a protective effect on the mucosa unlike plain ropinirole which showed evidence of moderate cellular damage.

The bioavailability of ropinirole in the brain was increased by five times when administered nasally using the gel when compared to intravenous administration. Thermoreversible nasal gel was consequently found to be a promising means of increased drug delivery for Parkinson's Disease.

Reference : Drug Development and Industrial Pharmacy [2016] Aug 17 :1-34 [Epub ahead of print] (M.Rao, D.K.Agrawal, C.Shirsath)

Complete abstract : <http://www.ncbi.nlm.nih.gov/pubmed/27533244>

<http://www.viartis.net/parkinsons.disease/news/160821.pdf>

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