



Apomorphine in the treatment of parkinson's disease

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Abstract

Apomorphine is a potent dopaminergic agonist with equivalent antiparkinsonian efficacy to levodopa. It was first licensed in the UK for use in the treatment of Parkinson's disease (PD) in 1993 on the basis of findings from an open-label, comparative study. Although several routes have been tried, subcutaneous administration, either as intermittent injections or continuous infusion, is so far the best in the treatment of PD with severe motor fluctuations not optimally controlled by oral medication. Numerous short-term and long-term, open-label, uncontrolled studies have shown the stable efficacy of apomorphine infusion in reducing off time, with reductions of up to 80% reported, dyskinesias and levodopa dose. Neuropsychiatric side effects occur, but the influence of apomorphine on these remains controversial. Rapid and effective resolution of akinesia using apomorphine intermittent injection (penject) was reviewed in the AM IMPAKT trial. Despite its long-standing clinical use, apomorphine infusion has been tested in only one multicentre, double-blind, randomised, placebo-controlled trial (TOLEDO). Both the 12-week double-blind phase and the 52-week open-label phase have been completed, but results for the double-blind phase only has been reported in 2018. In summary, apomorphine infusion has beneficial clinical effects on motor fluctuations in patients with PD that persist despite optimisation of oral/transdermal medication. Careful patient selection and follow-up and PD nurse has a crucial role. Apomorphine warrants a wider application in the treatment of advanced PD and should be tried before more invasive interventions. Controlled long-term clinical trials are warranted to reveal the full potentials of apomorphine treatment.

Biography

Helena Sarac was born in 1968 in Zagreb. She graduated from Medical School in 1992 and attained her PhD from Medical School University of Zagreb in 2013. She was a visiting research scientist at the Mount Sinai Hospital, New York. Since 1999 she had headed the Diagnostic Center Neuron at the Croatian Institute for Brain Research, Medical School University of Zagreb. She is neurologist at the Department of neurology, University Hospital Centre Zagreb.

