

PHARMACEUTICAL SCIENCE

Premium Edit

Parkinson's disease (PD) is a progressive extrapyramidal motor disorder. ~~This disease is~~ characterized by selective ~~dopamergic-dopaminergic~~ (DAergic) neuronal ~~degradation-degeneration~~ in the substantia nigra. ~~To correct~~ ~~Correction of dopamine~~ (DA) deficiency in PD with levodopa (L-dopa) significantly ~~releases~~ ~~attenuates~~ motor symptoms. ~~Nowadays,~~ DA receptor agonists, ~~which stimulate presynaptic and postsynaptic DA receptors, present an alternative treatment.~~ ~~They are currently considered~~ useful medication ~~for PD and~~ even regarded as ~~the~~ first ~~preference-line of treatment~~ to delay ~~starting the initiation~~ of L-dopa therapy. In ~~the~~ advanced stages of PD, they are also used as adjunct therapy ~~together with~~ L-dopa. ~~DA receptor agonists act by stimulation of presynaptic and postsynaptic DA receptors. Despite the usefulness~~ However, ~~they~~ DA receptor agonists ~~could be causative for~~ ~~may also cause~~ valvulopathy and nonmotor complications such as DA dysregulation syndrome (DDS). In this paper, ~~we discuss the~~ physiological characteristics of ~~the~~ DA receptor family ~~are discussed. We also discuss and the~~ validity, benefits, and specific adverse effects of pharmaceutical DA receptor agonists.

**Comment [A1]:** In your next sentence, you discuss an alternative medication for PD. I think the transition between this sentence and the next will be better if you explained why DA receptor agonists are preferred over L-dopa treatment. Perhaps you could say that although L-dopa improves motor symptoms, it has certain undesirable/adverse effects.

**Comment [A2]:** I have inserted this fact about DA receptor agonists here because it seemed to be introduced rather abruptly before the sentence describing their adverse effects.

**Comment [A3]:** I have made these changes to avoid repetition (of "discuss").