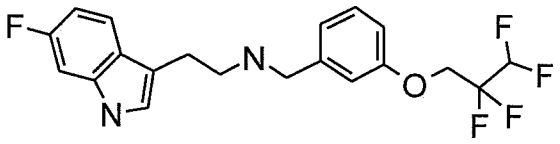
Also in other CNS diseases such as Lewy Body Dementia (LBD), Parasupranuclear Palsy (PSP) and Mutli Systems Atropy (MSA) balance, gait and movement are impaired due to degeneration of cholinergic neurons[30].

From the above it is clear that there remains an unmet need for treatment for use in reducing falls in patients with Parkinson's disease as well as in patients with other CNS diseases where degeneration of cholinergic neurons leads to balance, gait and movement impairment. N-(2-(6-fluoro-1H-indol-3-yl)ethyl)-3-(2,2,3,3-tetrafluoropropoxy) benzylamine with the INN name "idalopirdine" (depicted below) is for the first time disclosed in WO 02/078693 and it is a potent and selective 5-HT_6 receptor antagonist which has been in clinical development for treating cognition impairment associated with schizophrenia and as a treatment for AD.



idalopirdine

In 2012, a clinical study was reported with idalopirdine used in the treatment of Alzheimer's disease (AD). Data demonstrated that Idalopirding plus 10 mg/day of donepezil significantly improved cognitive function in 278 patients with AD compared to placebo plus donepezil, when measured by AD Assessment Scale-cognitive sub-scale (ADAS-cog). Idalopirdine showed positive results in secondary endpoints including measures of global impression and daily living activities compared to donepezil treated patients. A subsequent phase III study has not bee able to confirm the results.

The results included in this patent application have partly been disclosed in an e-publication (doi: 10.111/ejn.13354, published 29 July 2016)[31]. Further, the Michigan Complex Motor Control Task (MCMCT) that is used for evaluation of treatment impact on falls, gait and movement stoppages has been described in an article by Kucinski et al.[32]

Summary of the invention

In one aspect, there is provided the use of a 5-HT_6 receptor antagonist in combination with an acetylcholinesterase inhibitor in the manufacture of a medicament for the treatment of a CNS disease wherein balance, gait or movement is impaired due to degeneration of or functional impairment in cholinergic neurons.

The present invention relates to an 5-HT_6 receptor antagonist, such as idalopirdine (IDL), and an acetylcholinesterase inhibitor (AChEI), such as donepezil (DON), rivastigmine (Riva) or galantamine (GAL), for use in the treatment of Parkinson's disease by reducing falls in a patient with Parkinson's disease.The inventors of the present invention surprisingly found that co-treatment with donepezil and idalopirdine or rivastigmine and idalopirdine reduces falls in dual striatal-dopaminergic, corticalcholinergic system lesions (DL) rats. These results suggest

Claims

1. Use of a 5-HT_6 receptor antagonist in combination with an acetylcholinesterase inhibitor in the manufacture of a medicament for the treatment of a CNS disease wherein balance, gait or movement is impaired due to degeneration of or functional impairment in cholinergic neurons.

2. The use according to claim 1, wherein the CNS disease is selected from the group consisting of Parkinson's disease, Lewy Body Dementia, Parasupranuclear Palsy and Multi Systems Atropy.

3. The use according to any of claims 1 or 2, wherein the CNS disease is Parkinson's disease.

4. The use according to claim 3, wherein the treatment of Parkinson's disease is selected from the group consisting of reducing falls in a patient with Parkinson's disease, improving low gait speed in a patient with Parkinson's disease, reducing movement stoppages in a patient with Parkinson's disease, reducing freezing gait in a patient with Parkinson's disease, and improving gait control in a patient with Parkinson's disease.

5. The use according to any of claims 1 to 4, wherein said acetylcholinesterase inhibitor is selected from the group consisting of donepezil, rivastigmine and galantamine.

6. The use according to any of claims 1 to 5, wherein said 5-HT_6 receptor antagonist is idalopirdine.

7. The use according to any of claims 1 to 6, wherein, when the acetylcholinesterase

inhibitor is donepezil, the dose of donepezil is from 1 to 30 mg, such as from 5 to 23 mg; when the AChEI is galantamine, the dose is from 4 to 24 mg; and when the AChEI is rivastigmine, the dose of rivastigmine is from 1 to 20 mg.

8. The use according to any of claims 1 to 7, wherein when the 5-HT_6 receptor antagonist is idalopirdine, the daily dose of idalopirdine is from 10 mg to 120 mg, such as from 10 mg to 100 mg, such as from 30 mg to 90 mg, such as from 30 mg to 60 mg.

9. The use according to any of claims 1 to 8, wherein the 5-HT_6 receptor antagonist is idalopirdine and the acetylcholinesterase inhibitor is donepezil.

10. The use according to any of claims 4 to 9, wherein the treatment is for reducing falls in a patient with Parkinson's disease.

11. The use according to any of claims 4 to 9, wherein the treatment is for improving low gait speed in a patient with Parkinson's disease.

12. The use according to any of claims 4 to 9, wherein the treatment is for reducing movement stoppages in a patient with Parkinson's disease.

13. The use according to any of claims 4 to 9, wherein the treatment is for reducing freezing gait in a patient with Parkinson's disease.

14. The use according to claim 13, wherein the freezing gait is of less than about 2 seconds.

15. The use according to any of claims 4 to 9, wherein the treatment is for improving gait control in a patient with Parkinson's disease.

16. The use according to any of preceeding claims wherein the 5-HT_6 receptor antagonist is N-(2-(6-fluoro-1H-indol-3-yl)ethyl)-3-(2,2,3,3-tetrafluoropropoxy) benzylamine (idalopirdine).

17. The use according to any of claims wherein the 5-HT_6 receptor antagonist is N-(2-(6-fluoro-1H-indol-3-yl)ethyl)-3-(2,2,3,3-tetrafluoropropoxy) benzylamine (idalopirdine) and the acetyl cholinesterase inhibitor is donepezil.