

Learning unit: Antiparkinsonics

Impact of the learning unit

Parkinsonism, along with Alzheimer's disease, is one of the most common neurodegenerative diseases. Extrapyrimal symptoms, i.e., a typical symptomatology of this disease, may also be a manifestation of toxicity or the adverse effect of other medication administered.

Conversely, administration of some antiparkinsonic drugs due to increased dopaminergic activity may lead to numerous adverse effects, including neuropsychiatric. The aim of the learning unit is to introduce students to the problems of pharmacotherapy of parkinsonism and extrapyramidal symptoms of neuropsychiatric drugs, especially antipsychotics.

Important terms

antiparkinsonics

- dopamine precursors
 - levodopa
- dopaminergic agonists
 - pramipexol
 - ropinirol
- MAO B inhibitors
 - selegiline
- amantadine
- antimuscarinics
 - biperiden

antiparkinsonic drugs combination

- DOPA-decarboxylase inhibitors
 - carbidopa
 - benserazide
- COMT inhibitors
 - entacapone
 - tolcapone

extrapyramidal syndrome as an adverse effect of drugs

Learning outcomes

Student mentions the drugs used in Parkinson's disease therapy.

Student knows the basic pharmacological profile of antiparkinsonics (mechanism of action, adverse effects, indications and contraindications).

Student can explain the reasons for combining antiparkinsonic drugs.

Student can name examples of drugs inducing extrapyramidal syndrome.

Information resources

Rang & Dale's Pharmacology, 9th ed., 2020

Study materials in IS aVLFA0822c and aVLFA08222p.

Exam Questions

Special pharmacology: 23. Drugs of neurodegenerative diseases (Parkinson's disease; dementia)

"Essential" drugs: 48. levodopa/carbidopa