

## Learning unit: Antiparkinsonics

### Impact of the learning unit

Parkinsonism, along with Alzheimer's disease, is one of the most common neurodegenerative diseases. Extrapyrarnidal 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

bromocryptine

rotigotine

MAO B inhibitors

selegiline

rasagiline

amantadine

antimuscarinics

orfenadrine

procyclidine

trihexyphenidyl

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, 8th edition, 2016 - chapter 44: Anxiolytic and hypnotic drugs, pp. 536-545.

Study materials in IS aVLFA0822c and aVLFA08222p.

### **Exam Questions**

Special pharmacology: Drugs of neurodegenerative diseases (Parkinson's disease, dementia)

“Essential” drugs: levodopa / carbidopa