

Lec 3

Quiz: Antiparkinsonian Drugs

1. What is the primary neurotransmitter deficiency in Parkinson's disease?

- A) Acetylcholine
- B) Serotonin
- C) Dopamine
- D) Glutamate

Answer: C) Dopamine

2. Which brain structure is primarily affected in Parkinson's disease?

- A) Hippocampus
- B) Substantia nigra
- C) Thalamus
- D) Cerebellum

Answer: B) Substantia nigra

3. What is the first-line treatment for Parkinson's disease?

- A) Selegiline
- B) Levodopa
- C) Bromocriptine
- D) Amantadine

Answer: B) Levodopa

4. Which enzyme does Carbidopa inhibit?

- A) Monoamine oxidase B (MAO-B)
- B) Catechol-O-methyltransferase (COMT)
- C) Dopa decarboxylase
- D) Acetylcholinesterase

Answer: C) Dopa decarboxylase

5. Which of the following is a COMT inhibitor?

- A) Selegiline
- B) Entacapone
- C) Amantadine
- D) Bromocriptine

Answer: B) Entacapone

6. What is the main adverse effect of Levodopa therapy?

- A) Hepatic necrosis
- B) Dyskinesia
- C) Pulmonary fibrosis
- D) Severe hypertension

Answer: B) Dyskinesia

7. The 'on-off phenomenon' in Parkinson's disease is associated with:

- A) COMT inhibitors
- B) Levodopa
- C) MAO-B inhibitors
- D) Anticholinergics

Answer: B) Levodopa

8. Which antiparkinsonian drug is an MAO-B inhibitor?

- A) Amantadine
- B) Trihexyphenidyl
- C) Selegiline
- D) Ropinirole

Answer: C) Selegiline

9. What is the mechanism of action of Amantadine in Parkinson's disease?

- A) Blocks central muscarinic receptors
- B) Inhibits dopamine breakdown
- C) Releases dopamine from nerve terminals
- D) Directly stimulates dopamine receptors

Answer: C) Releases dopamine from nerve terminals

10. Which of the following drugs is a dopamine agonist?

- A) Carbidopa
- B) Bromocriptine
- C) Entacapone
- D) Selegiline

Answer: B) Bromocriptine

11. What is a unique side effect of Amantadine?

- A) Liver toxicity
- B) Livedo reticularis (skin pigmentation)
- C) Bradycardia
- D) Pulmonary fibrosis

Answer: B) Livedo reticularis (skin pigmentation)

12. Which drug selectively inhibits MAO-B, thereby preventing dopamine breakdown?

- A) Entacapone
- B) Selegiline
- C) Levodopa
- D) Carbidopa

Answer: B) Selegiline

13. Why is Carbidopa administered with Levodopa?

- A) To increase dopamine production in the brain
- B) To reduce peripheral conversion of Levodopa to dopamine
- C) To enhance dopamine receptor sensitivity
- D) To prevent hallucinations

Answer: B) To reduce peripheral conversion of Levodopa to dopamine

14. Which of the following drugs can be used to treat drug-induced extrapyramidal symptoms?

- A) Entacapone
- B) Bromocriptine
- C) Benztropine
- D) Selegiline

Answer: C) Benztropine

15. Which dopamine receptor subtype is primarily targeted by dopamine agonists in Parkinson's disease?

- A) D1
- B) D2
- C) D3
- D) D4

Answer: B) D2

16. Which drug is most useful in managing the freezing episodes in advanced Parkinson's disease?

- A) Carbidopa
- B) Amantadine
- C) Apomorphine
- D) Entacapone

Answer: C) Apomorphine

17. Which antiparkinsonian drug is most likely to cause vasospasm as a side effect?

- A) Amantadine
- B) Bromocriptine
- C) Carbidopa
- D) Entacapone

Answer: B) Bromocriptine

18. What is the primary mechanism of action of COMT inhibitors like Tolcapone?

- A) Inhibits peripheral conversion of Levodopa
- B) Blocks dopamine reuptake
- C) Stimulates dopamine release
- D) Increases acetylcholine levels

Answer: A) Inhibits peripheral conversion of Levodopa

19. Which of the following statements about anticholinergic drugs in Parkinson's disease is true?

- A) They are the first-line treatment
- B) They primarily improve tremors
- C) They significantly improve bradykinesia
- D) They prevent Levodopa-induced dyskinesia

Answer: B) They primarily improve tremors

20. Which treatment strategy is best for an early-stage Parkinson's patient with mild symptoms?

- A) Levodopa alone
- B) Levodopa + Carbidopa
- C) A dopamine agonist like Ropinirole
- D) An anticholinergic drug like Benztropine

Answer: C) A dopamine agonist like Ropinirole

Lec 4

Quiz: Antipsychotic Drugs

1. Which of the following is a hallmark of psychosis?

- A) Anxiety and depression
- B) Hallucinations and delusions
- C) Fatigue and weight gain
- D) Hypotension and bradycardia

Answer: B) Hallucinations and delusions

2. What is the primary neurotransmitter involved in schizophrenia?

- A) Serotonin
- B) Dopamine
- C) GABA
- D) Acetylcholine

Answer: B) Dopamine

3. Which symptom is considered a "negative" symptom of schizophrenia?

- A) Hallucinations
- B) Delusions
- C) Anhedonia
- D) Disorganized thinking

Answer: C) Anhedonia

4. The dopamine hypothesis of schizophrenia is supported by the fact that:

- A) Antipsychotic drugs block dopamine D2 receptors
- B) Increased dopamine leads to improved symptoms
- C) Dopamine deficiency causes psychotic behavior
- D) Most psychotic patients have high serotonin levels

Answer: A) Antipsychotic drugs block dopamine D2 receptors

5. Typical antipsychotics primarily block:

- A) 5-HT₂ receptors
- B) D₂ receptors
- C) Alpha-1 receptors
- D) GABA receptors

Answer: B) D₂ receptors

6. Atypical antipsychotics are more effective for:

- A) Positive symptoms of schizophrenia
- B) Negative symptoms of schizophrenia
- C) Insomnia and anxiety
- D) Treating tardive dyskinesia

Answer: B) Negative symptoms of schizophrenia

7. Which of the following is a major side effect of typical antipsychotics?

- A) Agranulocytosis
- B) Extrapyramidal symptoms (EPS)
- C) Serotonin syndrome
- D) Pancreatitis

Answer: B) Extrapyramidal symptoms (EPS)

8. Clozapine is associated with which serious side effect?

- A) Tardive dyskinesia
- B) Agranulocytosis
- C) Neuroleptic malignant syndrome
- D) Serotonin syndrome

Answer: B) Agranulocytosis

9. Neuroleptic malignant syndrome (NMS) is characterized by:

- A) Fever, muscle rigidity, confusion
- B) Weight gain, sedation, dry mouth
- C) Hallucinations, insomnia, social withdrawal
- D) Diarrhea, nausea, and vomiting

Answer: A) Fever, muscle rigidity, confusion

10. Which drug is used to treat tardive dyskinesia?

- A) Benztropine
- B) Amantadine
- C) Valbenazine
- D) Bromocriptine

Answer: C) Valbenazine

11. How long does it typically take for antipsychotic drugs to show full therapeutic effects?

- A) 1-2 days
- B) 1-2 weeks
- C) 6 weeks
- D) 6 months

Answer: C) 6 weeks

12. Which of the following is a treatment option for extrapyramidal symptoms (EPS)?

- A) Increasing the antipsychotic dose
- B) Switching to a typical antipsychotic
- C) Administering benztropine
- D) Using an MAOI inhibitor

Answer: C) Administering benztropine

13. Which antipsychotic drug is a partial agonist at D2 receptors?

- A) Clozapine
- B) Aripiprazole
- C) Risperidone
- D) Chlorpromazine

Answer: B) Aripiprazole

14. Atypical antipsychotics are preferred over typical ones because they:

- A) Have fewer autonomic side effects
- B) Have a lower incidence of EPS
- C) Are less expensive
- D) Act faster

Answer: B) Have a lower incidence of EPS

15. Which pathway is associated with the positive symptoms of schizophrenia?

- A) Mesocortical
- B) Mesolimbic
- C) Nigrostriatal
- D) Tuberoinfundibular

Answer: B) Mesolimbic

16. Which antipsychotic is associated with QT prolongation and cardiac dysrhythmias?

- A) Risperidone
- B) Clozapine
- C) Olanzapine
- D) Haloperidol

Answer: A) Risperidone

17. Which typical antipsychotic is known for its hepatotoxic effects?

- A) Thioridazine
- B) Chlorpromazine
- C) Haloperidol
- D) Risperidone

Answer: B) Chlorpromazine

18. Which of the following is NOT a side effect of low-potency antipsychotics?

- A) Blurred vision
- B) Orthostatic hypotension
- C) Hyperprolactinemia
- D) Increased dopamine release

Answer: D) Increased dopamine release

19. What is the first-line treatment for schizophrenia?

- A) Typical antipsychotics
- B) Atypical antipsychotics (except clozapine)
- C) Clozapine
- D) Monoamine oxidase inhibitors

Answer: B) Atypical antipsychotics (except clozapine)

20. Why must antipsychotics be tapered off slowly before discontinuation?

- A) To prevent withdrawal symptoms
- B) To prevent EPS
- C) To increase dopamine release
- D) To prevent serotonin syndrome

Answer: A) To prevent withdrawal symptoms