

# Anti-parkinson drugs toxicity



**Practical Clinical Toxicology**

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# What is Parkinson disease

Parkinson's disease, it is a degenerative disorder that affects the basal ganglia associated with a loss of dopaminergic neurons and degeneration of nerve terminals in the striatum.



# DRUG management OF PD

- ▶ **Muscarinic acetylcholine receptor antagonist**, *benztropine, benzhexol, procyclidine & trihexyphenidyl*

# benztropine- mechanism



→ Benzotropines a centrally acting anticholinergic/antihistamine agent.





# Benzotrpoine – clinical feature

- ▶ **Peripherally:** mydriasis, blurred vision



# Benzotrpoine – toxicity treatment

- ▶ AC within first two hours
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# Amantadine

- ▶ Amantadine as antiparkinson drug is weak.
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- A dark grey arrow points to the right from the left edge of the slide. Below it, several thin, curved lines in shades of blue and grey sweep upwards and to the right, creating a decorative background element.
- ▶ In overdose and acute toxicity, it has anticholinergic action




# Bromocriptine

- Bromocriptine is a non-hormonal, non-estrogenic agent



# Symptoms of bromocriptine overdose

- It's derivative from ergot alkaloid, which share some of properties of ergot overdose toxicity, *ergotism*.
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# management of bromocriptine overdose

- ▶ Emesis, gastric lavage & AC for the early hours of ingestion



# levodopa

- ▶ L-dopa is an amino acid found naturally in the body, A precursor of the neurotransmitter dopamine.
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# Management

- ▶ Supportive measures should be used, with gastric lavage if the patient presents within 1-2 h of ingestion of a large amount of levodopa.

# References

- 1- Gossel TA, Bricker TD, (Eds.); Principles of Clinical Toxicology; latest edition.*
- 2- Viccellio P, (Ed.); Handbook of Medicinal Toxicology; latest edition.*
- 3- journals of pharmacology and toxicology*