PHARM.D • YEAR 2

Pathophysiology

CHAPTER 8

Pathophysiology of Common Diseases

PPT CHAPTER COVER



Parkinsonism and Parkinson disease

Parkinsonism is a movement syndrome characterised by bradykinesia with rigidity and/or rest tremor.

Postural instability may develop, but its timing varies.

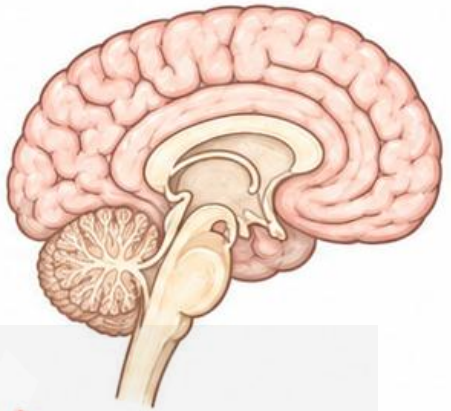
Parkinson disease is the most common degenerative cause.

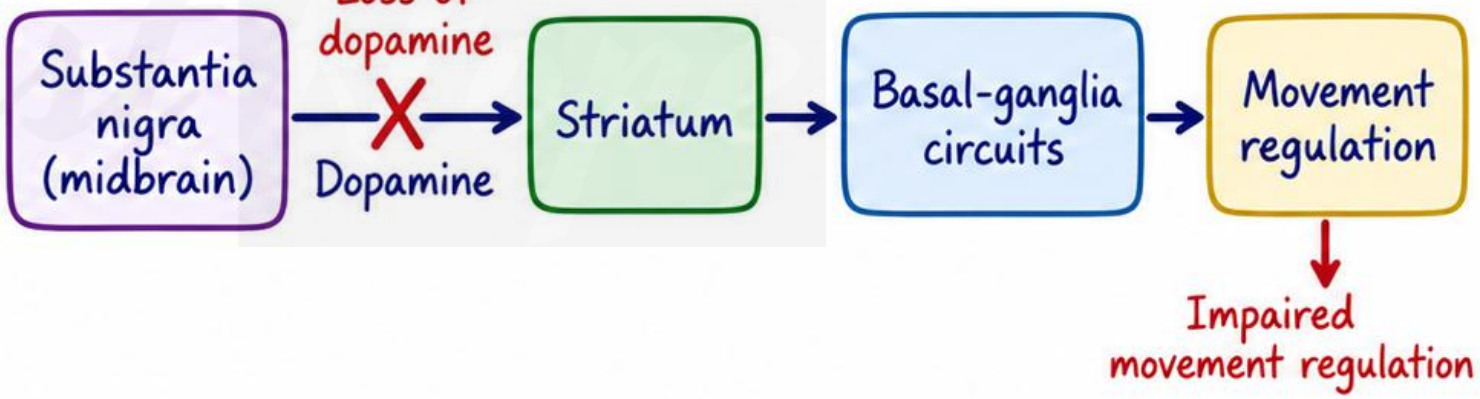
Loss of substantia nigra dopaminergic neurons reduces nigrostriatal dopamine signalling.

Basal-ganglia circuit dysfunction impairs initiation and scaling of movement.

Alpha-synuclein-containing Lewy pathology is characteristic of typical Parkinson disease.

Parkinsonism is not synonymous with Parkinson disease.





Parkinsonism ≠ Parkinson disease

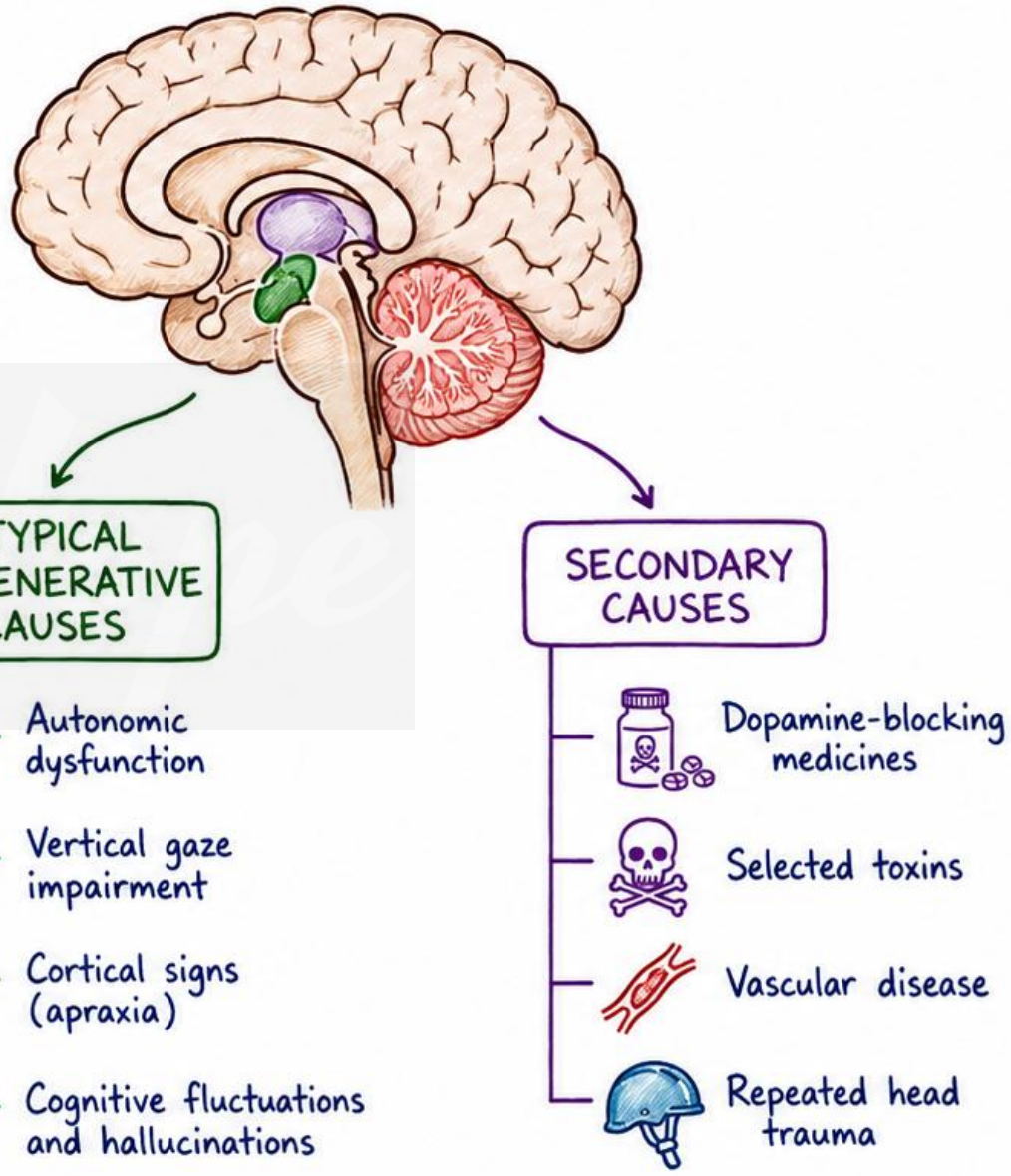
Parkinsonism: causes and clinical clues

ATYPICAL DEGENERATIVE CAUSES

- Multiple system atrophy: prominent autonomic dysfunction may accompany parkinsonism.
- Progressive supranuclear palsy: early falls and vertical gaze impairment are important clues.
- Corticobasal syndromes: asymmetric dysfunction and cortical signs such as apraxia.
- Dementia with Lewy bodies: early cognitive fluctuations and visual hallucinations may occur.

SECONDARY CAUSES

- Dopamine-blocking medicines, selected toxins, vascular disease and repeated head trauma can produce parkinsonism.
- The pattern and time course help distinguish causes.



Parkinson disease: motor and non-motor features

Motor features

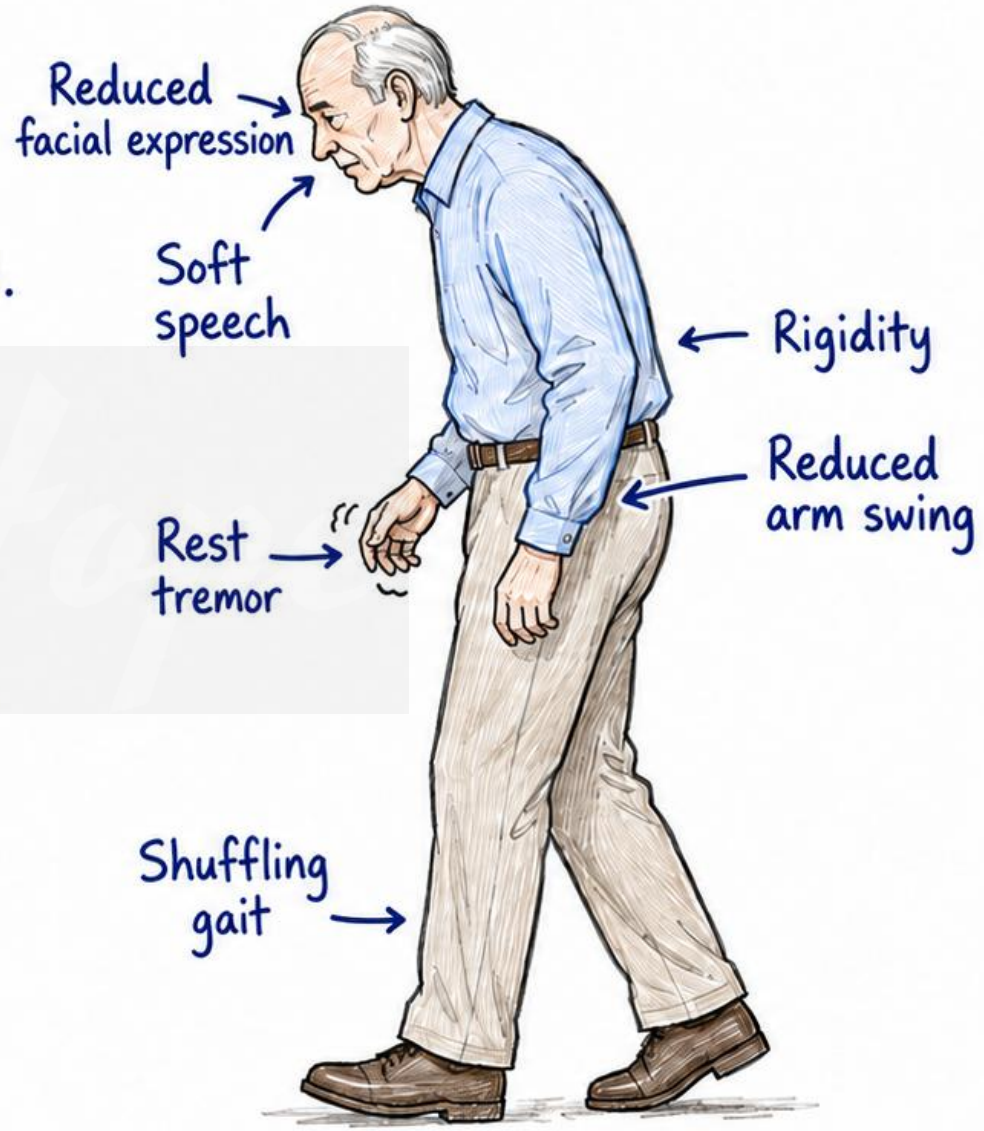
Motor features include slowness, rigidity, rest tremor, shuffling gait and reduced arm swing.
Speech may become soft and facial expression reduced.
Balance and swallowing difficulties can develop.

Non-motor features

Non-motor features include constipation, orthostatic symptoms and sleep disturbance.
Depression, anxiety and cognitive changes may also occur.
Symptoms differ between people and change over time.

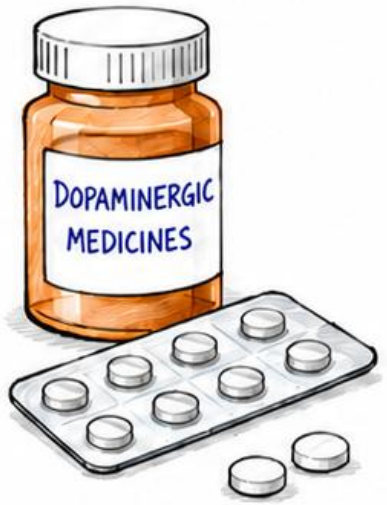
Assessment

Assessment combines history and examination; imaging may help exclude alternative causes.
Dopamine-transporter imaging does not reliably separate all degenerative parkinsonian syndromes.

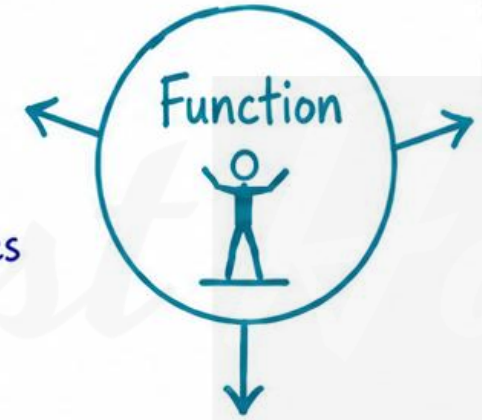


Parkinson disease: management overview

Medicines

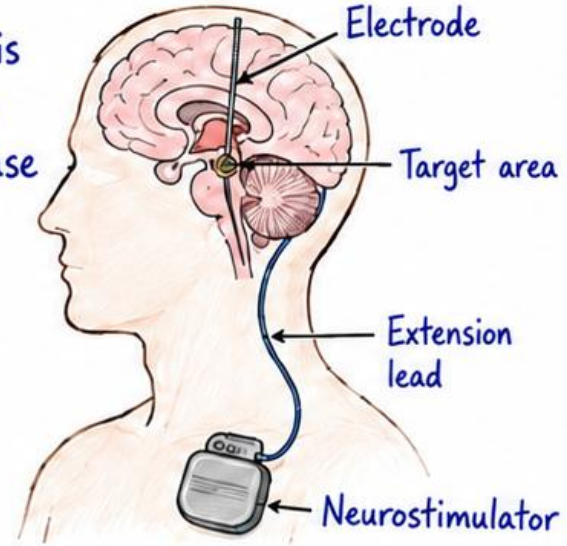


- Levodopa-based therapy and other dopaminergic medicines improve selected motor symptoms.
- MAO-B inhibitors and dopamine agonists are additional options.
- Amantadine may help selected symptoms, including dyskinesia.
- Anticholinergic treatment requires particular caution because of adverse effects.



Selected procedures

- Deep-brain stimulation is considered for carefully selected Parkinson disease patients.



Rehabilitation


Physiotherapy


Speech therapy


Occupational support


Exercise support

- Physiotherapy, speech therapy, occupational support and exercise support function.
- Treatment is individualised; benefit is often more limited in atypical parkinsonism.
- Symptom control does not mean the disease has been cured.

First Hope

FREE PREVIEW

Click here to visit our website

PHARMACY PREMIUM NOTES

Complete subject and semesters are available on FirstHope app only.

Scan or click here

Click here to get the app >

Available on Google Play

JOIN THE FIRSTHOPE COMMUNITY

Join our Telegram channel

Click here to join Telegram >

Scan or click here

@FirstHopeNotes

Instagram

@firsthope.official

Click here to follow >

YouTube channel

FirstHope-Pharmacy / Live streams

Click here to watch >

WhatsApp channel

Follow FirstHope on WhatsApp

Click here to join >

FirstHope website

firsthope.co.in

Click here to visit >

B.Pharm / D.Pharm / M.Pharm / Pharm.D

Preview notes. Complete subjects and semesters in the FirstHope app.