

Drugs used in Parkinsonism

Drugs	DA precursors	DA receptor agonists		Increases DA release	(MAO-B) inhibitors	COMT Inhibitors		Anticholinergic Drugs
		Levodopa (L-dopa)	Ergot derivatives	Non ergot derivatives	Amantadine	Selegiline	Entacapone	Tolcapone
		Bromocriptine (D2 agonist)	Pramipexole (D3 agonist)	- antagonist at muscarinic receptors - Antagonist at NMDA	an important enzyme for dopamine metabolism.	Acts peripherally	Acts peripheral And central	Central muscarinic antagonist.
Indications and advantages	1st line treatment	- Parkinson's disease - Hyperprolactinemia (galactorrhea) - Infertility in women	Has the advantage of being free radicals scavenger.	only used for L-dopa resistance	Adjunctive to levodopa/carbidopa in later -stage parkinsonism	Used as adjuvant to L-dopa + carbidopa > Prolonged the ON-Time.		- Improve tremor & rigidity. (but have little effect on bradykinesia. - Provide benefit in drug-induced parkinsonism (due to antipsychotics).
ADR's	nausea, vomiting, Mydriasis, postural hypotension , depression , hallucinations	Similar to L-dopa, Dyskinesias (less prominent, Confusion, delusions		- Ankle edema , and livedo reticularis. - DA side effects - anticholinergic effects - NMDA antagonist	- Insomnia	- Orange discoloration of urine - L-dopa side effects	Mydriasis , dry mouth, Constipation Cycloplegia	
C.I	- Psychotic patient - Glaucoma - Patient with history of melanoma	- Psychosis - Peripheral vascular disease (only ergot derivatives - Recent myocardial infarction		-	With: - TCA s - SSRI s	-	Prostatic hypertrophy , Glaucoma, Intestinal obstruction .	
combination	With carbidopa	اذا كان في بداية المرض اعطيه لوحده اذا كان مرحله متقدمه اعطيه مع ليفودوبا			With L-dopa			
Other	- taken on empty stomach - Dyskinesia - converted into dopamine via dopa decarboxylase (DC)	- Have longer duration of action than L-dopa (less likely to cause dyskinesias than levodopa)		Useful in the early stages of parkinsonism or as an adjunct to levodopa therapy.	- neuroprotective effect. - anti-oxidant activity			

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