	Pharmacokinetics	Use	Adverse effect	Contrindications
Dopamine Agonist Levodopa	-First –line treatment , combined with peripheral dopa decarboxylase inhibitor	All types of parkinsonism except those associated with antipsychotic drug therapy	-Peripheral side effects are anorexia, nausea, and vomiting (due to stimulation of the CTZ). Orthostatic hypotension ,Cardiac arrhythmias occur in some patients. -CNS adverse effects include vivid dreams, delusions, hallucinations, confusion and sleep disturbances.	-Psychotic patient. -Angle closure glaucoma. -active ulcer + melanoma
Dopamine Agonist Bromocriptine	-an ergot derivative, is an agonist at the D2-receptors - is absorbed to a variable extent from the GIT ; peak plasma levels are reached within 1–2 hours after an oral dose. - It is excreted in the bile and feces	- in conjunction with Levodopa to reduce the occourance of side effects associated with long-term -for hyperprolactinemia	-Postural hypotension, nausea, somnolence -Dyskinesias. -Confusion, hallucinations, delusions,	-I psychotic illness . -myocardial infarction, -Active peptic ulceration. - peripheral vascular disease.
Amantadine	-originally introduced as an antiviral. -modestly effective in treating symptoms of parkinsonism. -Amantadine affects dopamine release and reuptake. -antagonist at muscarinic and NMDA receptors.	In early stages of parkinsonism as adjunct to levodopa therapy	-nausea, dizziness, insomnia, confusion, hallucinations, -ankle edema, and livedo reticularis. -Amantadine and the anticholinergics may exert additive effects on mental functioning.	History of seizure and heartfailure
MAO inhibitor Selegiline	- an irreversible inhibitor of MAO-B, an important enzyme in the metabolism of dopamine. - Blockade of dopamine metabolism makes more dopamine available for stimulation of its receptors	-as monotherapy, may be effective in the newly diagnosed patient with parkinsonism - in conjunction with levodopa–carbidopa in later-stage parkinsonism to:- -reduce levodopa dosage requirements	-at higher doses Selegiline may inhibit MAO-A. -may cause insomnia when taken later during the day. -The adverse effects of levodopa may be increased by selegiline. -Selegiline should not be coadministered with TCA, meperidine or SSRIs. (may cause hyperpyrexia, agitation, delirium, coma).	
Anticholinergic Drugs Benztropine, Trihexyphenidyl	- The efficacy of anticholinergic drugs in parkinsonism is due to their ability to block muscarinic receptors in the striatum	used during the early stages of the disease or as an adjunct to levodopa therapy.	-cycloplegia, dry mouth, urinary retention, and constipation. -Confusion, delirium, and hallucinations may occur at higher doses. -Trihexyphenidyl may cause withdrawal symptoms in patients receiving large doses.	