Parkinson's Disease Interventions (OLD VERSION)

Interventions for Parkinson’s disease involve pharmacologically increasing the amount of dopamine availability in the brain, which decreases motor symptoms of the disease. This allows patients to maintain independence and a near normal quality of life. Surgical interventions are typically used only after medication therapies fail. This disease has no cure.

PLAY PICMONIC

Medications

Levodopa/Carbidopa (Sinemet)
Levitating L-Doberman and Carpet-Doberman
This medication allows for increased dopamine in the brain but prevents increased dopamine in the peripheral system at the same time. This medication is actually two medications combined. One part, Levodopa, which crosses the blood brain barrier and is metabolized into active dopamine and the second part carbidopa, which does not cross the blood brain barrier and prevents levodopa from being metabolized into an active dopamine in peripheral tissues.

Entacapone (Comtan)
Attack-Capone
Entacapone (Comtan) works as a preferential catechol-O-methyl transferase, or COMT, inhibitor. It blocks COMT from metabolizing dopamine (by preventing peripheral methylation) in the periphery. This, in turn leads to increased availability of dopamine in the brain. Entacapone is given in addition to levodopa-carbidopa to prolong its action and prevent its “wearing off.”

Selegiline (Eldepryl)
Sledge-lion
Selegiline is a monoamine oxidase type B (MAO-B) inhibitor. Monoamine oxidase degrades dopamine in the brain and this medication slows that breakdown.

Amantadine (Symmetrel)
A-manta-ray
Amantadine is actually an antiviral medication that used to be used for the treatment of influenza type A but is often used in the treatment of Parkinson’s disease. The exact mechanism is unknown but it decreases extrapyramidal side effects.

Bromocriptine (Parlodel)
Broom-crypt Keeper
Bromocriptine is given typically after other medications are not effective. This medication is an ergot alkaloid and is a potent dopamine receptor agonist. It is also used in the treatment of hyperprolactinemia and pituitary tumors.

Benztropine (Cogentin)
Benz-trooper
This medication is an anticholinergic medication that is effective for motor symptoms such as tremor. These medications are often not given in older adults because of the risk of serious anticholinergic side effects, such as urinary retention, blurred vision, dry mouth, and confusion.

Considerations

Allow Extra Time

Adding time to parking meter

Extra time should be given to these patients to complete ADLs. Lifestyle modifications can increase patient productivity, such as slip-on shoes or velcro ties on clothes to get dressed.

Drug Holiday

Drugs on Holiday

Due to the side effects and tolerance that can develop after long term use with Parkinson's medications (particularly levodopa), a controversial technique known as a "drug holiday" may be initiated. During a drug holiday, which can last up to 10 days, the patient is instructed to stop taking their medication for PD in an effort to improve the response to the drug and to manage the complications. The patient should be carefully monitored for symptoms of PD during this period.

Ensure Patient Safety

Ensure Safety Net

Ensure patient safety by assessing fall risk and the need for assistive devices to eat, dress, etc. Patients often freeze while walking due to muscle rigidity and are thus, at increased risk. Implement all fall risk precautions and provide an obstacle free living environment by removing fall hazards like throw rugs.

Surgery As Last Resort

Surgery Last Resort

Stereotactic pallidotomy or thalamotomy may be indicated for serious symptoms in some patients. This involves creating a burr hole in the skull, placing an electrode in the pallidum in the brain and electrically stimulating the area of the brain tissue causing the motor problems. Eventually this area scars and the motor problem is resolved.