DRUG MANAGEMENT OF PARKINSON’S DISEASE 2021

NOTE: All PD drugs have side effects and adverse interactions with other medicines, including   over the counter products. Your PD provider must be aware of everything you are taking.  They will usually start with a low dose of the medicine and gradually increase it while   carefully monitoring for efficacy and side effects.

A/ Motor symptoms (involving muscle functions)

 There are 2 broad categories of motor symptoms in PD, tremor-predominant and   gait/balance predominant.

 Tremor-predominant: resting tremor, soft voice, tiny handwriting, muscle weakness and  stiffness, slowness, and low blood pressure upon standing. This type responds best   to drug treatment and to Deep Brain Stimulation.

 Gait/balance predominant: short, quick steps, diminished arm swing, freezing, instability,  falling, stooped posture, and loss of protective reflexes. This type responds less well   drug treatment and to DBS, has a worse prognosis and is more likely to result  in dementia. Physical therapy and exercise help substantially

 1/ Carbidopa/Levodopa (Sinemet and others): The “backbone” of PD treatment. Comes in   many strengths and in long acting and short acting forms. Boosts dopamine levels.  Side effects: dyskinesias (abnormal movements of the body, face and tongue),   nausea, drowsiness, hallucinations, confusion, compulsive behavior, agitation,  excessive dreaming, dry mouth, insomnia.

 NOTE: protein-rich foods and antacids reduce levodopa’s absorption. Take meds  30 min before or 2 hours after meals if possible.

 Rytary: A newer carbi/levo formulation which is long acting and provides more stable  levels of the drugs than other formulations.

 Inbrija: A levodopa “rescue” inhaler to provide a boost when the drug is wearing off.

 2/ Dopamine agonists (act like dopamine): Ropinirole (Requip and others), Pramipexole  (Mirapex and others), and Rotidigine (Neupro). These provide moderate symptom   control. Often used as initial treatment of PD or added to carbi/levo for added   effect. Neupro is available as a skin patch. NOTE: 15% of patients will experience  neurologic side effects (sleepiness, hallucinations, loss of impulse control, mania,  paranoia) which cease when the drug is stopped.

 3/ MAO-B inhibitors (slow the destruction of dopamine): Selegiline (Eldepryl and others),  Rasagiline (Azilect and others), Safinamide ((Xadago). These raise the levels of   endogenous dopamine and are often used early in PD before carbi/levo is begun, or   can be added to it. These have few side effects but can interact adversely with many  foods and drugs.

 4/ Drugs which slow the destruction of levodopa: These are usually added to carbi/levo as  PD progresses. Entacapone (Comtan), Opicapone (Ongentys), and Istradefyline   (Nourianz).

 Stalevo is a combination of carbi/levo and Comtan in a single long-acting pill.

 5/ Treatment of dyskinesias (which can be caused by too much of the above meds):   Amantadine (Symmetrel or once daily Gocovri and Osmolex ER): Very effective and   causes neurons to release dopamine, improving PD symptoms and reducing “off”  time.

B/ Nonmotor Symptoms

 !/ Sleep Disorders:

 a/ Excessive drowsiness (hypersomnia): A common side effect of carbi/levo and   dopamine agonists. First try to reduce the dosage(s). Modafinil (Provigil) is the safest   treatment.

 b/ Insomnia: First practice “sleep hygiene”. Avoid daytime naps, no caffeine or alcohol in  the evening, make sure the bedroom is cool (65 degrees) dark and quiet, have a 1 1/2   hour quiet period before bedtime (no TV. no lighted screens, no upsetting news), if   reading don’t read in bed. Melatonin (over the counter, 3-9mg) and Clonazepam  (Klonopin) are effective. Light therapy and anything that relaxes you can help.  c/ Sleep apnea (episodes of stopping breathing): Diagnosed by a sleep study  d/ REM Sleep Behavior Disorder (vivid dreams with thrashing about in bed): This often  precedes PD by up to 15 years. Melatonin and Clonazepam work

 2/ Depression (seen in up to 70% of PD patients and often begins 5-10 years before   diagnosis: Only Paroxitine (Paxil) and Venlafaxine (Effexor) have definitively been shown  to be effective. However many other drugs seem to help. Let your PD specialist choose.  Mirapex (dopamine agonist) has a mild antidepressant effect.

 3/ Anxiety (seen in up to 40% of PD patients): The drugs used to treat depression seem to   help. Trazadone and Remeron have also been effective. Note: anxiety can often   increase in the first 2-3 weeks of treatment.

 NOTE: For both depression and anxiety non-drug therapies have been shown to be  effective. These include daily exercise, socialization, participating in pleasurable   activities (these include mindfulness, meditation, and relaxation therapy), and cognitive   behavioral therapy (performed by a Psychologist or a Psychiatric social worker)

 4/ Psychosis (often with disturbing visual hallucinations): Can be caused by PD meds.   Clozapine (Clozaril) , Primavancerin (Nuplazid) and Seroquel can help. .They require   careful monitoring and may take 4-6 weeks to take effect.

 5/ Pseudobulbar affect (inappropriate or excessive laughing or crying): Nuedextra is   effective.

 6/ Low blood pressure (especially upon standing): Can be a carbi/levo side effect. Before  you get out of a chair or out of bed pump your feet up and down for 30 seconds.  Droxidopa (Northera) is effective but requires careful BP monitoring.

 7/ Restless leg syndrome (a feeling that your legs are trying to move): Often occurs in bed.  Carbi/levo, Mirapex, and Neupro all help. Neurontin and Lyrica are effective but watch  for side effects.

 8/ Constipation: Frequently precedes PD by decades. Fiber supplementation with  adequate hydration is the first-line treatment. Warning: Psyllium (Metamucil, etc.)  cause excessive gas and bloating.

 Polyethylene glycol (MiraLax,etc.) when added to fiber is very effective. Some   probiotics also work. A Gastroenterologist can prescribe drugs that promote   intestinal motility.

 9/ Urinary symptoms (frequency, urgency, slow stream, hesitancy): Seen in up to 80% of  PD patients. Best to have an evaluation by a urologist. Multiple drugs work.

 10/ Cognitive impairment (altered attention, slow thinking, visuospatial abnormalities,  diminished “executive function”- planning, multitasking, organizing, problem  solving): Present at the time of PD diagnosis in 20% and occurring over time in  50%. This is NOT dementia. Responds best to dopamine augmentation.

 11/ Dementia: A late progression (up to 20 years after diagnosis) of cognitive impairment.  Often accompanied by psychosis, apathy and impairment in activities of daily living.  Rivastigmine (Exelon) is the only approved treatment. Other medicines can be tried.  Exelon is available as a skin patch.

 12/ Digestive disorders (delayed stomach emptying, diminished small intestinal motility,   intestinal bacterial overgrowth): These will interfere with absorption of medicines.  There are multiple treatment possibilities, best evaluated by a Gastroenterologist.

 13/ Drooling: Can precede PD diagnosis by years. Anticholinergic (drying) drugs help but  can increase constipation and cause urinary retention. BoTox injections can help.

 14/ Excessive sweating: In 50%+ of PD patients. Dopamine-like drugs work.  15/ Sexual dysfunction: Viagra, Cialis, etc. can help

 16/ Fatigue: in up to 70% of PD patients. Exercise and socialization are the most effective.

 17/ Pain: Common in PD. Often in bed at night and can fluctuate widely.   Treatment: Dopamine-like drugs, anti-inflammatory drugs (Motrin, etc.), analgesics  (Tylenol, etc), antidepressants all help.

 18/ Vision problems: Double vision, blurred vision. Best evaluated by an Ophthalmologist.

 19/ Impulse-control disorder (Compulsive gambling, shopping, sex, eating, hoarding):  Occurs in 10-40% of PD patients. Can be aggravated by dopamine-like drugs. More   common in those with REM sleep behavior disorder. There are no good studies of  drug treatment. Cognitive behavioral therapy (Psychologist, Psychiatric social worker)  has been shown to help.

References: www.michaeljfox.org, www.webmd.com, www.parkinson.org, www.drugs.com