Non-motor Symptoms of Parkinson’s Disease

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Overview

• Diagnosis of Parkinson’s based on motor features

• Most current disease-specific treatments designed for these symptoms

• Non-motor symptoms can be as if not more problematic

• Some, though not all, occur as part of, or worse, with the motor “off” state
Non-motor symptoms

• Neuropsychiatric
• Sleep disorders
• Autonomic symptoms
• Gastrointestinal symptoms
• Sensory symptoms
• Miscellaneous
Neuropsychiatric

• Depression
• Anxiety
• Loss of interest/motivation
• Psychosis (Hallucinations/Delusions)
• Dementia
• Obsessive behavior
Depression/treatments

- Psychology/therapy

- Mild (short time, not suicidal or psychotic)- neurologist=
  - Selective Serotonin Reuptake Inhibitors/SSRIs (Prozac®, Paxil®, Celexa®, Lexapro®)
  - Wellbutrin® (mechanism unknown, thought to involve dopamine)
  - Effexor® (stimulating)
  - Tricyclic Antidepressants/TCAs (elavil, sedating for sleep)
  - Remeron®, Trazadone® (also used for sleep)

- Moderate/Severe (difficult to treat, suicidal, psychotic) should involve psychiatrist
Anxiety/treatments

• Many of the same treatments for depression, including non-pharmacologic (psychologists) and pharmacologic (Paxil®)
• Buspirone/Buspar®
• Benzodiazepines/clonazepam (Klonipin®)
• Gabapentin/Neurontin®
Psychosis/treatments

• Can be medication/dopamine-related, so can attempt decrease dopamine-medications
• Quetiapine/Seroquel® (sedating)
• Clozapine/Clozaril® (requires frequent lab draws, weekly to start)
• Pimavanserin/Nuplazid® (requires several weeks to demonstrate efficacy)
Dementia

• “Different from Alzheimer’s”
• Difficulties with attention, visuospatial problems and concentration > memory
• Treatments include acetylcholinesterase inhibitors such as donepezil (Aricept®) or rivastigmine (Exelon®), NMDA antagonist memantine (Namenda®)
Obsession/Compulsive

• Related to dopamine-medications- dopamine agonists

• Of these occur, patients do not always recognize this

• Removal/reduction of dopamine agonists, at times can be changed to alternative med

• Can occur with levodopa, less common
Sleep disorders

- REM behavior disorder
- Restless leg syndrome
- Periodic limb movements of sleep
- Excessive daytime sleepiness
- Vivid dreams
- Insomnia
- Sleep apnea
REM Behavior Disorder

• “Acting out your dreams”
• Can be severe, leading to self- or bed partner injury

• Treatments include
  - Melatonin
  - Clonazepam (even low dose- 0.25-0.5mg)
  - Gabapentin
Sleep disorders/treatment

• Good sleep hygiene (consistent bed and wake time, daytime activity, only in bed for sleep)

• Restless legs:
  - Magnesium, Iron supplementation
  - Dopamine (agonists such as pramipexole (Mirapex®) or ropinirole (Requip®) and carbidopa/levodopa (sinemet))
  - Narcotics in severe cases

• Insomnia:
  - Sleep aids (short time only) - restoril®, ambien®, lunesta®
  - Longer term: Trazadone, Mirtazapine/Remeron®

• Sleep apnea/CPAP (positive pressure airway breather)
Autonomic (Related to the sympathetic/parasympathetic system)

- Urinary urgency
- Needing to get up at night (>2) to urinate (nocturia)
- Urinary Frequency
- Sweating
- Orthostatic hypotension (dizziness on standing)
- Sexual dysfunction- increased or decreased desire, erectile dysfunction/impotence
Urinary symptoms/treatments

• Urinary symptoms: complicated as can be PD, can be Prostate-
• Prostate examination by primary care physician or urologist
• Bladder training (timed restroom use, less liquids at night)
• If problem is bladder spasm, use of medication which does not cross blood-brain barrier:
  - solifenacin (Vesicare®)
  - trospium (Sanctura®)
  - mirabegron (Myrbetriq®)
• Botulinum toxin/Botox® injections
Orthostatic Hypotension

• Non-pharmacologic measures
  - Compression stockings
  - Increased salt intake
  - Elevating head of the bed

• Medication
  - fludrocortisone (Flurinef®)
  - proamatine (Midodrine®)
  - droxidopa (Northera®)
  (pyridostigmine/Mestinon®; fluoxetine/Prozac®)
GI symptoms

- Dribbling/drooling
- Feeling food is “stuck”
- Choking
- Reflux
- Nausea/vomiting
- Constipation
- Incontinence
Drooling/treatments

- Awareness
- Speech/swallow therapy

- Botulinum toxin injections to salivary glands
- Atropine drops
- Scopolamine patches
- Glycopyrrolate/Robinul®
- Other oral agents can cause confusion
Constipation/treatments

- Diet/fruit/roughage
- fiber (Metamucil)/prunes
- Stool softeners (docusate), Suppositories (dulcolax), bowel motility agents (Miralax)
- Prescription agents (lactulose, linaclotide/Linzess®)
Sensory symptoms

- Pain
- Cramps
- Tingling
- Loss of taste or smell
Sensory symptoms/treatment

- Lidocaine patch
- Gabapentin
- Tricyclic antidepressants/elavil
Other symptoms

- Fatigue
- Double or blurred vision
- Weight loss
Other symptoms/treatment

- Amantadine
- Some antidepressants are more stimulating (Wellbutrin®, Effexor®)
- Modafinil/Provigil®
- Methylphenidate/Ritalin®

- Eyes: Neuro-Ophthalmology referral/prism

- Supplements (Ensure, ice cream or megace)
Non-motor “off” symptoms

• Neuropsychiatric- panic attacks, anxiety, mood changes, slowed thinking, restless
• Autonomic symptoms- bladder difficulties
• Gastrointestinal symptoms-abdominal discomfort
• Sensory symptoms- pain, abnormal hot/cold/aching/tingling sensations
• Miscellaneous- fatigue
Non-motor “off” treatment

• Changing to longer-acting levodopa (Rytary)
• Addition of dopamine agonists or enzyme inhibitors
• Adjustment of timing of medication
Summary

- Other symptoms of Parkinson’s exist outside of the classic motor symptoms
- These are part of the disease process
- Many of these have symptomatic treatments, like the motor symptoms
- Further therapies (both pharmacologic and non-pharmacologic) are needed