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FAST FACTS AND CONCEPTS #362

PARKINSON'S DISEASE: PART II PALLIATION FOR COMMON NON-MOTOR SYMPTOMS

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Background Nonmotor symptoms likely affect overall quality of life in Parkinson Disease (PD) as much as motor symptoms (1). *Fast Fact* #361 discussed the natural trajectory of PD. This *Fast Fact* will focus on management strategies of common non-motor symptoms in PD patients.

Pain Nearly 85% of PD patients report pain (2). Musculoskeletal pain from limitations in mobility is the most commonly reported pain type. While there are no comparative analgesic studies for PD, NSAIDs, acetaminophen, physical rehabilitation, and low dose opioids are commonly utilized analgesic strategies. Dystonia is a prolonged involuntary muscle contraction which often leads to foot cramping, muscle spasms, and a sensation of muscles twisting. In addition to the analgesic strategies listed above, skeletal muscle relaxants and botulinum toxin injections may be warranted (see *Fast Facts* #340 & 324). Neuropathic pain, which is often described as a shooting pain or a sensitivity to light touch within a dermatome, is a less common pain reported in PD. Gabapentin, pregabalin, duloxetine, venlafaxine, and/or interventional strategies (e.g. spinal cord stimulator or a nerve block) are preferred over tricyclic antidepressants (TCAs) due to the risk for delirium and falls in PD patients.

Neuropsychiatric Symptoms As many as 40% of patients with advanced PD experience neuro-psychiatric symptoms, most commonly visual hallucinations (3). The assessment and treatment is similar to delirium in general (see *Fast Fact* #1) with a few special considerations (3-10):

- Several PD medications are associated with psychosis: amantadine; monoamine oxidase type B (MAOB) inhibitors, catechol-O-methyl transferase inhibitors (e.g. entacapone); and dopamine agonists (e.g. pramipexole). Before initiating new pharmacotherapies, reduce or discontinue offending medications as appropriate. Pharmacy and neurology input may be necessary.
- Common neuroleptics used to treat delirium such as haloperidol, risperidone, and olanzapine should be avoided as they may worsen motor symptoms by blocking dopamine and raise mortality risk.
- Quetiapine is the preferred pharmacologic treatment in PD because it seems to have the least effect on motor symptoms. Because PD patients may be more prone to somnolence, many experts recommend initiating at a low dose such as 12.5 mg to 25 mg at bedtime or BID.
- Clozapine has the most compelling evidence of all anti-psychotics for treating PD-related psychosis; however, its use is reserved to psychiatrists due to its association with agranulocytosis.
- Pimavanserin is a FDA approved oral medication for PD-related hallucinations at a usual dose of 34 mg a day. Although randomized, placebo controlled trials show efficacy with little worsening of motor symptoms or other adverse effects (12-14), its use is limited by its cost which is >$80/day.

Daytime Sleepiness Excessive daytime somnolence is common in PD. Beyond best nocturnal sleep hygiene practices (see *Fast Facts* 101, 104 & 105), expert considerations include (15-17):

- AM intake of caffeine or a prescribed psychostimulant such as methylphenidate 5-10 mg twice a day or modafinil 100-200 mg per day.
- Screen for comorbid sleep disorders such as rapid eye movement behavior sleep disorder, restless leg syndrome, and obstructive sleep apnea as roughly 85% of PD patients have a sleep disorder. Refer to a sleep specialist when appropriate.
- Screen for sudden bouts of excessive daytime drowsiness or sleep (often referred as a "sleep attacks") which can be common and hazardous in PD. If present, patients should avoid driving.

Depression There is no clear consensus regarding the best antidepressant in PD. Duloxetine, venlafaxine, buproprion, sertraline, and escitalopram are preferred by many experts over mirtazapine and TCAs which have higher anticholinergic activity. Clinicians should be cautious when combining any antidepressants with MAOB inhibitors to avoid serotonin syndrome (10,18,19).

Dementia The only FDA-approved treatment for PD-related dementia is rivastigmine; however, its anticholinergic properties can worsen Parkinsonian symptoms and its efficacy in preventing progression of cognitive impairment is limited (10,20). Hence, many experts question its utility.

Orthostatic Hypotension Nonpharmacologic interventions like increased fluid/salt intake and compression stockings are first-line treatments as are a reduction of antihypertensive medications if medically appropriate. Fludrocortisone or midodrine can be added in refractory cases (5).

Sialorrhea Sialorrhea and drooling are common in PD because of the reduced oromotor control and autonomic dysfunction. Chewing gum or hard candy may encourage swallowing and reduce drooling in mild cases (21). For moderate to severe symptoms, the use of glycopyrrolate 1-2 mg by mouth three times a day; sublingual atropine 1% ophthalmic solution 1-2 drops once to twice a day; ipratroprium spray, or botulinum toxin injections into salivary glands has been described (20-22)

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