



Blood pressure, Bladder and Bowel problems:

Dysautonomia in Parkinson's disease

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Disclosures

- I have no financial interest with any entity producing marketing, re-selling, or distributing healthcare goods or services consumed by, or used on patients
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Outline

1. What is dysautonomia?
2. Why do patients with Parkinson disease (PD) have it?
3. What can **you** do about it? What can **we** do about it?
4. Specifics:
 - a) Problems with blood pressure: orthostatic hypotension
 - b) Problems with the bladder: urge with urination/urge incontinence
 - c) Problems with the bowels: constipation
 - d) Others: erectile dysfunction; drooling

What is dysautonomia?

- Dysfunction or impairment of the *autonomic nervous system*
- Autonomic nervous system:
 - Part of the nervous system that influences inner organs
 - Acts largely unconsciously
 - Examples of what it does or regulates:
 - Heart rate and blood pressure
 - Breathing/respiratory rate
 - Size of your pupils
 - Digestion
 - Urination
 - Sexual function

Why is there dysautonomia in PD?

- PD is defined by its typical motor symptoms
 - Slowness
 - Stiffness
 - Tremor (shaking) at rest
- However, there are plenty of so-called nonmotor symptoms in PD, because many parts of the brain are affected by PD-related changes, not just the motor parts:
 - Sensory symptoms (numbness, pain, restlessness)
 - Mental problems (depression, anxiety, apathy)
 - Sleep-related (acting out dreams, insomnia, fatigue)
 - Autonomic problems (blood pressure, bladder & bowel problems)

What can you do? What can we do?

- You and your loved ones need to know that it can occur.
 - You need to bring it up at your doctor's appointment.
 - You need to know that the medication for motor symptoms (levodopa etc.) typically has a very small if any effect on these problems (and may even make them worse!).
 - You should try non-pharmacological approaches.
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- We need to know that it can occur as part of PD.
 - We need to remember to ask about it at your appointment.
 - We can recommend non-pharmacological approaches.
 - We may need to prescribe medications to treat your symptoms.

Specifics (A): Blood Pressure (1)

- Blood pressure drops when you stand up from a sitting or lying position: "orthostatic hypotension".
- What you feel:
 - Dizzy or lightheaded when standing up
 - Neck/shoulder pain ("coat hanger pain") or headache when standing up
 - Difficulty thinking or responding when upright
 - Pre-syncope or syncope: almost passing out, or actually passing out

Specifics (A): Blood Pressure (2)

Possible non-pharmacological interventions:

- Be aware of it:
 - Get up slowly, holding on to something
 - Ready to sit down abruptly if necessary
 - Bystanders should be aware of need to help you sit down, or possibly lie down
- Hydration/avoid dehydration!
- Salty food
- Compression stockings; abdominal binder
- Elevate the head of the bed
- Discuss adjusting your PD meds with your doctor

Specifics (A): Blood Pressure (3)

Possible medications:

- **Fludrocortisone (Florinef)**
- **Midodrine (ProAmatine)**
- **Droxidopa (Northera)**
- **Pyridostigmine (Mestinon)**

WATCH OUT for "supine hypertension"

=high blood pressure when lying flat (risk of heart disease and/or stroke)

Specifics (B): Bladder

- **What you feel:**
 - Urge with urination
 - Frequent urination
 - Possibly incontinence ("accidents")
- **Workup:**
 - Anatomical (non-PD-related) causes
 - Consider discussion with your OB/Gyn or urologist
- **Treatment:**
 - **AVOID "anticholinergics"** like oxybutynin (Ditropan), tolterodine (Detrol), etc. (**memor loss, confusion!**)
 - **Trospium chloride (Sanctura)**
 - **Mirabegron (Myrbetriq)**

Specifics (C): Bowel

- **What you feel:**
 - **Constipation**
- **Workup:**
 - **Constipation alternating with diarrhea or bowel incontinence are NOT typical of PD**
-> **consider GI workup (colonoscopy)**
- **Treatment of constipation:**
 - **Hydration/avoid dehydration!**
 - **Diet enriched with fiber**
 - **Laxatives: Senna, docusate (also in combination!), polyethylene glycol (MiraLax), lubiprostone (Amitiza)**

Specifics (D): Others

- REMEMBER that erectile dysfunction is common in men with PD.
- It is OK to talk about it with your doctor!!!
- Medical management may be helpful:
 - Sildenafil (Viagra)
 - Vardenafil (Levitra)
 - Tadalafil (Cialis)
- On the flipside, hypersexuality can be a side effect of PD medications, in particular *dopamine agonists*.
- Sialorrhea (drooling):
 - Atropine eye (!) drops sublingually (under the tongue!)
 - Botulinum toxin injections to the salivary glands

Summary

- **Nonmotor symptoms of PD are common and can majorly affect your quality of life**
- **You and your doctor need to be aware of these issues, in order to recognize them, and recognize the connection with PD.**
- **Some nonmotor symptoms are made worse by PD medications targeting the motor symptoms. Compromise may be necessary!**
- **Treatment is possible! Often starting with non-pharmacological approaches, and prescription medications, if necessary.**



Thank you for your attention.