

# Parkinsonism UPDATE!!

June 16, 2023

# Agenda

1. What Is Parkinsonism
2. Cardinal Features and Other Symptoms
3. Treatment
4. BOLD STRATEGIES TO LIVE WELL
5. Considerations

# What is Parkinsonism?

- Malfunction of neurons that produce a chemical called dopamine.
- A loss of 50% of dopamine may occur before noticing symptoms.
  - *Dopamine is a neurotransmitter found In the body and the brain*
  - *In body, regulates Blood Pressure, kidney perfusion, and other vital functions*
  - *In brain lack of, causes slow movements, tremor at rest, rigidity, and postural instability*
  - *When levodopa enters the nerve cell, it converts to dopamine, it must be stored in the nerve terminal to be useful*
  - *The problem is ability to make and store dopamine-IT's complicated*

# BLAME IT ON DOPAMINE....

- Smooth, automatic, coordinated muscle movement
- Things you don't think about doing:
  - Smile, blink, walk, swallow, balance, arm swing, posture, turning in bed, arising from a chair, etc.

## **LACK OF DOPAMINE**

- *Falls, Vision changes*
- *Anxiety, depression, motivation & increased fatigue*
- *Pain from rigidity, decreased response time, Lack of interest, alertness*
- *Lack of thirst, hunger, constipation*
- *Changes in Blood Pressure, skin changes, HOH*

# Four Cardinal Features of PD

- Tremor at rest (hands, feet, arms, legs, jaw, tongue) not all tremor is PD
- Bradykinesia (slowness of movement)
- Rigidity of limbs & trunk (stiffness)
- Postural instability (impaired balance, fall usually when pivoting)
  - *Tremor internally, may not be visible, person feels it, linked to anxiety*
  - *Pain from stiffness, back muscles, neck muscles, legs*
  - *Fatigue from restless sleep*

# Additional S/S of PD

- Micrographia – small handwriting
- Ortho-static hypotension, posture change
- Diminished facial expression, dry mouth. Sticky saliva, dry eyes
- Dysarthria-low voice volume, a lot of clearing throat, cough
- Mood (depression, Anxiety, Irritability)
- Sleep Disturbance, active dreaming, involuntary movements, fatigue
- Weight loss, constipation
- Decrease in reflexes, blinking & swallowing
- Increase in dandruff & oily skin
- Urinary urgency
- Loss of smell

– ***DENTAL HYGIENE VERY IMPORTANT, INCREASE IN CAVITIES, AND ASPIRATION PNEUMONIA***

# How do we treat PD?

- Patient & physician decide when to start a medication
- Medications temporarily replenish dopamine
- Surgery, DBS & Doupa Gel
- EXERCISE & PHYSICAL THERAPY
  - ***150 minutes a week of exercise to see benefit, strength training 2 times a week***
  - ***Water water water***
  - ***MUSIC, singing, dancing, Tango (beat impacts cognition and cardiac health)***
  - ***Music increases connectivity, improves multi- step planning***
  - ***Support groups***
  - ***Focus on your ABILITIES***
  - ***Focus on nutrition, what are you eating?***

# Goals of Medication

- Increase dopamine levels in the brain
- Decrease symptoms
- Improve QOL & prevent complications such as:
  - Head Injury, bowel impaction
  - Dehydration, UTI's
  - Pneumonia
    - ***Silent aspiration, saliva drips without even swallowing***
    - ***Set goals, YOU NEED SOMETHING TO ACHIEVE***
    - ***Stay out of the hospital, keep HOB up, do not go to bed after eating, 2 to 3 hours***
    - ***Keep you moving***



# Gold Standard Medication

Oral Sinemet = Carbidopa + Levodopa

LEVODOPA alone 1950's

- Treats symptoms of rigidity, gait, tremor
- Taken multiple times during 24 hours
- dose timing is very Important-1/2 life 60-90 minutes
- Increase dose as disease progresses
- GI, dry mouth, sleepiness, low blood pressure, light headed & constipation
  - ***State time you take rather than three times a day or four times a day***
  - ***Same time, EVERY TIME***
  - ***YOUR BRAIN LIKES CONSISTANCY, EXPECTS IT, OVER TIME IMPROVEMENT***

# Protein-levodopa challenge!

- Take 30 minutes before eating or take 60 minutes after eating
- Take with crackers and fruit avoid protein
- Eat small meals thru out the day
- Eat protein foods later in the day to avoid medication interaction
- Due to absorption competition in small intestine
- DRINK 8 OUNCES OF WATER WITH PILLS
  - *Drink water, water to drink*
  - *Eat snacks, healthy, not empty calories*
  - *Energy foods important*
  - *Not all persons are sensitive to food and C/L*

# Possible Medication Side Effects

- Orthostatic Hypotension DROP IN BLOOD PRESSURE WHEN CHANGING POSITION (BP monitoring, laying, sitting, standing)
- Excessive or bothersome dyskinesia (uncontrolled twisting or dance-like movements)
- Frightening to bothersome hallucinations
- Nausea
- Sleepiness daytime

**-medication side effects and symptoms of Parkinson's can be the same**

**-communication is key to identifying a worsening or new side effect**

**-you need water intake with each medication to help it travel to brain**

# COMPLICATIONS -PREVENTION

Head Injury

Aspiration Pneumonia

Bowel Obstruction

Fractures

Back issues

Skin: cancer, rash, irritation, breakdown

UTI

PAIN PAIN PAIN

Physical and emotional

**TYPICALLY NOT COMPLAINERS.....**

# Symptom Management Strategies

- Handwriting, eating, dressing
- Walking and breaking the freeze, pain prevention
- Fall prevention, getting up from a chair
- Verbal communication, swallowing, dry mouth, bowel and bladder issues, hydration
- Sleep hygiene, exercise and depression

**Encourage independence, socialization, eating together**

***-PT and OT UNDER UTILIZED***

# Adaptation Strategies

## Handwriting Changes

1. Schedule writing tasks when meds. Are On \*write check at home - Use debit card
2. Try different types of pens, larger barrel or felt-tip pen
3. Move your arm about & stretch out your hand to ease stiffness during writing

# Adaptation Strategies

## Eating and Drinking-Don't Rush

1. Practice eating with the hand that has less tremor
2. Experiment with easy-grip utensils
3. Avoid over-filling glasses/cups
4. Non-skid placemats can keep plates & serving dishes stable
5. Take adequate time to eat, thoroughly chew
6. Moisten inside mouth before taking pills/bite
7. Do not lay down after eating, aspiration pneumonia

***-treat reflux/gerd***

***-eat at the table, posture is key***

***-eat foods that are easy to manage***

# Adaptation Strategies

## Easy Dressing

Always sit to dress-Prevent falls

1. Elastic waist bands, Velcro fasteners, snaps, avoid clothes that fasten in the back
2. Use dressing aids, long handled shoe horns, avoid bending over (fall prevention)
3. Slip on shoes, rough up soles



# Adaptation Strategies

## Walking PT

- Stand up straight with head over hips before starting to walk, if you shuffle, slow down or stop and check your posture
- Practice taking long steps, exaggerate lifting your feet & swinging your arms
- Pick a target & walk toward it, especially when walking through doorways
- If you become stuck, rock from side to side to break the freeze, or pretend you are stepping over an object on the floor- tape on floor example, SAY IT OUTLOUD....
- ***PT and OT together can help you with a new way of walking, practice makes perfect***
- ***Therapies specific to PD needs***

# More on Walking

- Stress & anxiety can cause freezing to occur, do one thing at a time
- Relax & avoid hurrying, lighting and floor pattern
- Deep breathing
- Moving neck & arms decreases focus on legs/feet, can break a freeze
- Remain calm, offer person an arm, never pull
- PATIENCE

# Getting up from a Chair

- Stable base chair, average height, firm, good armrests
- Feet shoulder width apart
- Nose over toes
- Push up from armrests
- Care-partner, try not to assist, give space and time
- Get up every hour, longer you sit the more difficult it will be to get up

# Adaptation Strategies

## Fall Prevention

1. Never carry objects in both hands while walking
2. Adaptive equipment, cane, walker, walking poles, or stick, see PT
3. Lightheadedness is common, change positions very slowly, count to 20 before walking when getting up from a chair-FALL PREVENTION
4. Install handrails along hallways & stairways
5. Remove throw rugs & clutter

- 1. PT and OT referral before you think you need it, you needed it yesterday**
- 2. Water .....**
- 3. Learn how to get up off the floor, PT and OT will help**
- 4. LIGHTING VERY IMPORTANT**

# Adaptation Strategies

## Verbal Communication

1. Take a breath before you start to speak, pause during speaking and breath
2. Face your listener when speaking, exaggerate pronunciation
3. Speak for yourself, & speak often!
4. Deliberately speak louder than you think is necessary
5. Speech-language pathologist

- 1. *Speech evaluation/SWALLOW EVAL***
- 2. *Cognitive rehab/SPEECH***
- 3. *Reflux/gerd can be very silent and damaging***

# Adaptation Strategies

## Swallowing

1. Eat six small, nutritious, tasty meals
2. Keep chin down during swallow, small bites
3. Sit upright-good posture, at table
4. Flavorful foods are easier to swallow
5. Ice cold is easier to swallow
6. Use apricot nectar, tomato juice, egg nog, creamed soups for cutting thick saliva
7. Altoid mints, meat tenderizer also thins saliva

***-See the specialist, speech therapist, this is only a small list of how to improve your life, YOU DESERVE AN EVALUATION TO CORRECTLY IDENTIFY THE ISSUE***

# Adaptation Strategies

## Dry Mouth

1. Moisten foods by adding gravy, sauce, melted butter
2. Dunk dry foods to moisten
3. Suck on ice chips
4. Citrus foods, candies, gum or popsicles can stimulate saliva
5. Take a sip every 2 bites of food

### ***1. Recipe from speech therapist***

#### ***Dry throat spray recipe***

***¾ cup warm water***

***dissolve in ½ tsp salt***

***½ tsp baking soda***

***12 tsp white karo syrup***

***Sip or spray in mouth as needed.***

# Bowel & Bladder – Dilution is the Solution

- Treat constipation
  - Fiber/fluids/time/MOVEMENT/schedule
  - Natural vegetable laxative/senna/softeners
  - Hydrate, protective undergarments, for security

Minimize incontinence-develop regular schedule. Get up and go in time.

***Drink water? PREVENT IMPACTION***

***constipation is treatable, you can train your bowel***

***use a stool for your feet to elevate your knees when seated***

***men should sit, not stand, EVER***

***RECIPE AVAILABLE***



# Changes in Sleep Cycle

- Drowsiness during the daytime, limit naps
- Depression & anxiety
- Frequent bathroom trips at night
- Pain from stiffness
- Difficulty with position changes, very stiff, difficult to get up quick

***IF YOU ARE NOT COMFORTABLE, YOU WON'T SLEEP WELL, SHOP,  
ADJUSTING MEDICATIONS SO YOU ARE ABLE TO BE MOBILE IN BED  
BEING MOBILE IS NEEDED TO TURN IN BED, SILK SHEETS ETC.  
ADAPTIVE RAIL FOR TURNING IN BED EASIER***

# Sleep Hygiene

- Maintain regular rise & bed times
- Get plenty of bright light exposure during the day
- Decrease fluid intake for four hours before sleep
- Cool bedroom
- Sleep evaluation, ? Apnea
- Restless leg syndrome
- Pain relief
- Medication evaluation - timing

# Exercise/Depression

- Intentional, make it part of daily routine,
- Plan appointment to go.....
- Be realistic, the goal is to maintain
- Improves breathing, Mood enhancer, increase dopamine
- Decrease constipation

**-TARGETED EXERCISE FOR THERAPEUTIC POTENTIAL TO IMPROVE  
MOOD, COGNITION, SLEEP**

**Delay the Disease, Boxing, Big and Loud, Ball room dancing, singing, cycling etc.**

# Avoid or use cautiously

- Non-prescription cold remedies
- Certain vitamins and herbs
- Anesthesia can have long lasting effects
- Herbs and vitamins

# Considerations

- Sudden changes in mobility or cognitive behavior may not be due to PD...
- Increased symptoms may be related to:
  - Another underlying medical issue (infection, pneumonia, urinary tract infection)
  - Emotional stress, Surgery, medication change
  - Dehydration, poor nutrition, constipation

***-Sudden is a key word***

# Support Care Partner

- This is very much a family affair and illness. Care partners are dealing with a lot of decisions, may have not been the driver in the past, or managed finances etc.
- Support Groups are very helpful.
- We are blessed with many options for supporting symptoms of PD

# Thank you.

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