Common cognitive and behavioral changes in PD and its mimics
Overview

• What are common cognitive and behavioral changes in Parkinson Disease and its mimics?

• When should cognitive or behavioral changes be evaluated?

• How do we evaluate and treat cognitive and behavioral changes?
  • In general?
  • With psychotic symptoms, in particular?

What are common cognitive and behavioral changes in Parkinson Disease and Lewy Body Dementia?

• Short-term memory problems (forgetting appointments, misplacing things, forgetting conversations)
• Visuospatial problems (getting lost in familiar places)
• Executive dysfunction (trouble following directions, trouble managing medications/bills/shopping lists)

• If cognitive problems are present but DO NOT limit daily activities it is called Mild Cognitive Impairment (MCI)
  -30% of patients with Parkinson Disease have MCI at time of diagnosis; 50% will have MCI after 5 years

• If cognitive problems are present and DO limit daily activities, it is called Dementia
  -30% of all Parkinson’s patients have dementia
  -60-80% will develop dementia at some point in their lives, usually not until many years after initial diagnosis

• We differentiate Parkinson Disease Dementia from Lewy Body Dementia based on the time-course of when the cognitive changes began in relation to the movement symptoms
  -In Lewy Body Dementia, the cognitive decline precedes or starts around the same time as movement symptoms

• In either condition, cognitive changes may be associated with symptoms such as hallucinations or behavioral changes.

• Multiple System Atrophy (MSA), a Parkinson mimic, usually doesn’t affect cognition
What are common cognitive and behavioral changes in Parkinson Disease and Lewy Body Dementia?

• **Mood symptoms**
  1) Depression
    - Often due to brain chemical changes from Parkinson’s
    - Classic symptoms are loss of interest/enjoyment in things, feeling sad, changes in sleep or appetite, worsening concentration or memory or energy.
    - If severe, can contribute to hallucinations or psychotic behavior
  
  2) Anxiety
    - Can also occasionally be a symptom of medications wearing off

  3) Apathy
    - Losing your “get up and go”, being a lump on a log

  4) Compulsive behavior and hypersexuality as a medication effect

What are common cognitive and behavioral changes in Progressive Supranuclear Palsy and Corticobasal Degeneration?

Can often present like someone with Frontotemporal Dementia:

• Disinhibition (inappropriate behavior, impulsivity, hypersexuality)
• Apathy
• Poor judgement
• Poor hygiene/diet/over-eating
• Indifference to their condition or symptoms
• Language problems (getting words out, or understanding others)
• Pseudobulbar affect (laughing at things that aren’t funny, crying when not sad)
• Generally relatively spared memory
When should cognitive and behavioral changes be evaluated?

- Are you or your family/friends/physicians concerned about the changes?

- Are the cognitive changes significantly more than other people your age?

- Are the cognitive changes bothersome, limiting, or dangerous to you, or others?
  - Often family and friends notice changes before the patient does
  - Sometimes the patient doesn’t believe anything is wrong

How can we evaluate cognitive and behavioral problems?

- A detailed history and exam by your doctor
- Look for reversible causes of cognitive problems
  - Infections
  - Sleep problems
  - Depression or other mood disorders
  - Medication side effects
  - Other medical problems (B12 deficiency, thyroid problems, etc)
- Ordering more detailed memory testing (neuropsychological testing) and head imaging
  - Can help differentiate different types of cognitive disorders, and tips for managing the symptoms
### How do we treat cognitive and behavioral changes in PD and its mimics?

- Nothing slow down progression/reverses the course of these diseases
- Treatment is symptomatic
- Exercise your mind
- Consider seeing a cognitive disorders specialist and/or adding a memory-enhancing medication
- May provide some benefit in Parkinson Disease Dementia and Lewy Body Dementia, but there are no “magic bullet” medications for cognitive decline
- “ Stops the clock” for 3-6 months; some improvement in behavior and daily functioning too
  - Donepezil (Aricept)
  - Rivastigmine (Exelon)
  - Galantamine
  - Memantine??
  - Neudexta for pseudobulbar affect, if bothersome

### How do we treat cognitive and behavioral changes in PD and its mimics?

- **Mood symptoms**
  1) Depression and anxiety
     - Consider talk therapy with a social worker, psychologist, or psychiatrist
     - Exercise, work on control of Parkinson symptoms
     - Consider starting an anti-depressant or anti-anxiety medication
     - Monitor for symptoms getting severe, such as thoughts of hurting yourself or others
       - If these are present, let the patient’s doctor know right away, and if the patient is at risk call 911
  2) Apathy
     - Try scheduling activities and keeping a calendar to stick to
How do we treat cognitive and behavioral changes in PD and its mimics?

• Consider future planning and ensuring a safe and manageable home situation:
  • The goal is to balance independence and safety
  • Establish a Designated Power of Attorney (DPOA) early
  • Discuss ways to focus on safety and adequate supervision and assistance at home (having family members double-check medication administration, monitoring driving, additional home health aides, etc).
  • Consider support groups and day programs
  • Caregivers also need to take care of themselves, to take care of the patient
  • Some patients may eventually need higher levels of care then they can get at home (assisted living, etc)

How do we treat cognitive and behavior changes in PD and its mimics?

• **Psychosis:**
  • Defined as some loss of contact with reality
  • Can manifest as:
    • Hallucinations (seeing or hearing things that aren’t actually there)
    • Delusions (firmly held false beliefs)
    • Paranoia (feeling that people are out to get you)
Treating psychosis in Parkinson Disease and its mimics

- The first rule: If it is not bothersome or dangerous, it is usually ok to observe
- Gentle redirection by caregivers can sometimes be enough

- Look for and treat other reversible causes of psychosis
  - Infections
  - Sleep problems
  - Depression
  - Medication side effects (including Parkinson meds; Lewy Body patients in particular are exquisitely sensitive to medication effects)
  - Other medical illnesses

Treating psychosis in Parkinson Disease and its mimics

- Consider having your doctor decrease or adjust your Parkinson medications
  - This needs to be balanced with potentially worsening Parkinson movement symptoms

- Consider adding anti-psychotic medications
  - Unfortunately, many of these medications act by blocking dopamine, and so may worsen Parkinson movement symptoms

- A few specific anti-psychotic medications are generally well-tolerated:
  - Quetiapine (Seroquel) → easy to use, reasonably effective
  - Clozapine (Clozaril) → Quite effective, but requires frequent blood monitoring
  - Pimavanserin (Nuplazid) → Takes 4-6 weeks to kick in, only approved for Parkinson Dementia
Treating psychosis in Parkinson Disease and its mimics

• Consider seeing a psychiatrist/geriatric psychiatrist as well as a Social Worker for specialized care

• Consider memory-enhancing medications
  • May provide some benefit for psychotic symptoms in Parkinson Disease Dementia and Lewy Body Dementia
    • Donepezil (Aricept)
    • Rivastigmine (Exelon)
    • Galantamine
  • Unlikely that these medications are of benefit in PSP or CBD