The Johns Hopkins University School of Medicine

Psychosis and other unusual behaviors in Parkinson's disease

Presenting:

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The Johns Hopkins University School of Medicine

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DISCLOSURES

- No relevant financial relationships with commercial interests.
- The following talk includes unlabeled/unapproved use of medications.

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NEUROLOGY RESIDENT LECTURE SERIES

Wednesday, February 28, 2018

Presentation title

"Neuropsychiatric symptoms in Parkinson's Disease"

Today's Goals and Objectives:

1. Become familiar with the prevalence and range of psychotic symptoms in Parkinson's disease
2. Discuss the current treatments for psychotic symptoms in Parkinson's disease
3. Introduce a range of unusual behaviors in PD such as, impulse control disorders, dopamine dysregulation syndrome, punding, and apathy, and discuss how best to recognize and address them

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Psychosis in Parkinson's disease

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Psychosis – a general definition

- “A severe mental disorder in which contact is lost with external reality”

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Psychosis – a Parkinson's definition

- **Hallucinations** – false sensory perceptions in the absence of external stimuli
- **Illusions** – misperception of actual stimuli
- **Passage hallucinations** – indefinite object passing through the peripheral visual field
- **Sense of presence hallucination** – a 'feeling' of someone present
- **Delusions** – false, fixed, idiosyncratic belief

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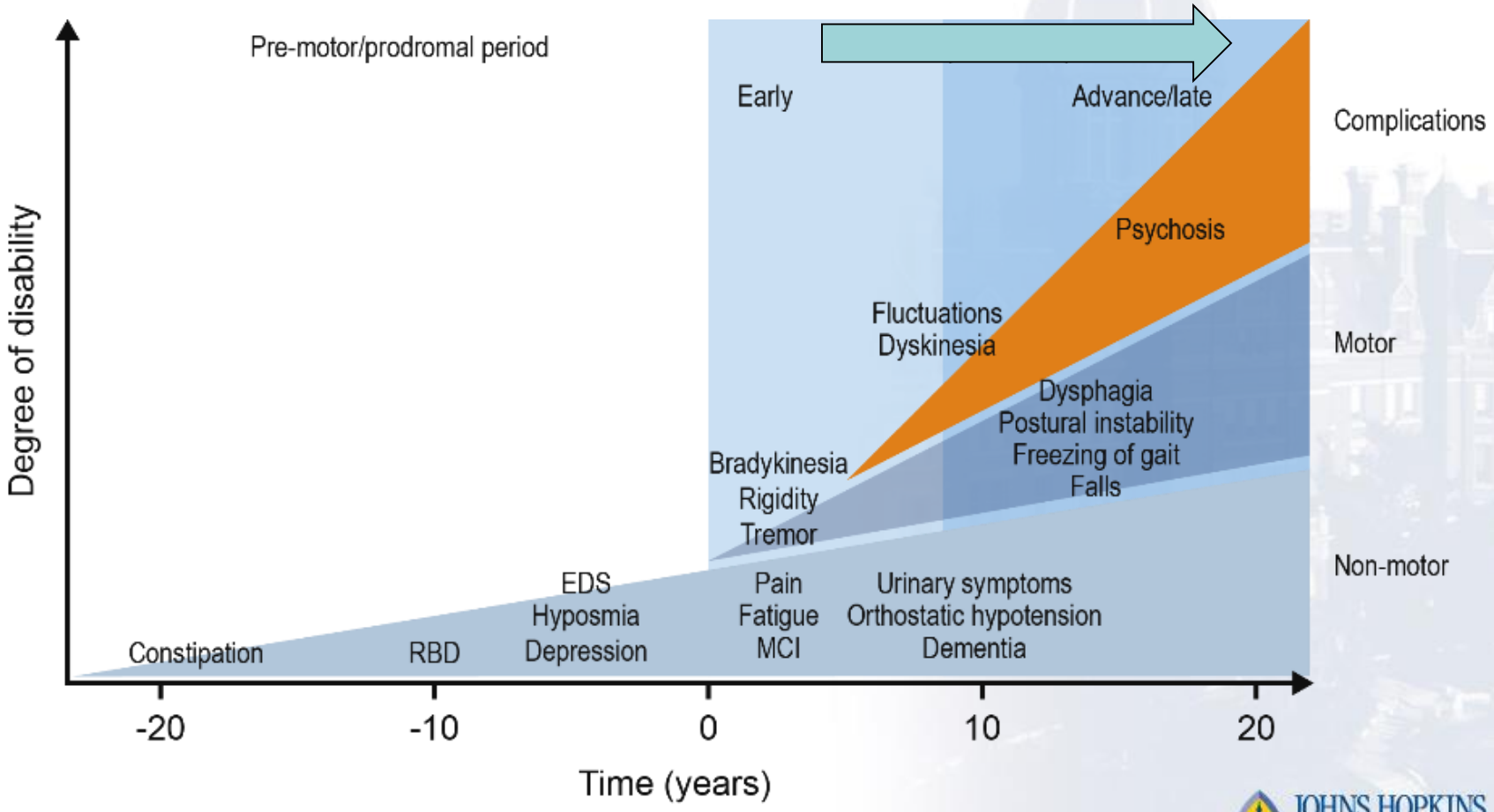
PD psychosis typically occurs in more advanced disease



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Risk factors and correlates of Parkinson's disease psychosis

- Severity and duration of PD
- Cognitive impairment

- Delirium due to medical causes
- Dopaminergic medication for PD
- Alterations in vision (or hearing)
- Anticholinergic, opiate, or benzodiazepine medications

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PD psychosis Management Strategies

- Treat underlying medical illness, if present
- Discontinue medications that may exacerbate psychosis (e.g., pain, bladder, and CNS-acting medications)
- Non-pharmacologic techniques
- Antipsychotic therapy
- Reduction of PD medications
- Treatment with cholinesterase inhibitors

Goldman JG, Holden S. *Curr Treat Options Neurol*. 2014;16(3):281.

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Non-pharmacologic strategies for PD psychosis

- Home modifications (e.g. night lights)
- Discussion, education
- Coping strategies
  - -visual techniques
  - -cognitive techniques
  - -interactive techniques

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Antipsychotic Treatments for PD psychosis

Treatment		Efficacy	Safety	Practice Implications
MDS review designation (2011)[1]	Clozapine	Efficacious	Acceptable risk with specialized monitoring	Clinically useful†
	Quetiapine	Insufficient evidence	Acceptable risk without specialized monitoring	Investigational†
FDA approved for PDP (2016)[2]	Pimavanserin	Efficacious[3]	No impairment of motor function[3]; increase in QT interval	Clinically useful

† Black box warning for typical and atypical APs in elderly patients who have dementia-related psychosis[4]

1. Seppi K, et al. *Mov Disord*. 2011;26(suppl 3):S42-S80. **2**. US Food and Drug Administration Web site. http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm498442.htm. Published April 29, 2016. Accessed October 27, 2016. **3.** Cummings J, et al. *Lancet*. 2014;383(9916):533-540**. 4**. US Food and Drug Administration Web site. http://www.fda.gov/Drugs/DrugSafety/ucm124830.htm. Published June 16, 2008. Accessed November 5, 2016.

Cholinesterase Inhibitors for Parkinson's disease psychosis

- Emergence of hallucinations may coincide with onset of dementia
- Cholinesterase inhibitors often used for PDP because of its association with dementia[1,2]
- Agents investigated (all off-label) include:
  - Galantamine
  - Rivastigmine
  - Donepezil

1. Ojo OO, Fernandez HH. *Curr Psychiatry Rep*. 2016;18(10):97.
2. Goldman JG, Holden S. *Curr Treat Options Neurol*. 2014;16(3):281.

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IMPULSE CONTROL DISORDERS IN PARKINSON'S DISEASE

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Impulse control disorders in PD

"Behaviors performed repetitively, excessively, and compulsively to an extent that interferes with life functioning"

- Impulsive – lack of forethought or consideration of consequences
- Compulsive – repetitious behaviors with lack of self-control

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Impulse control disorders in PD

- Pathological gambling
- Compulsive buying/shopping
- Hypersexual behaviors
- Binge eating

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Impulse control disorders in PD are often a hidden problem

- Routine screening is not common
- Patients are often:

  -embarrassed by the behaviors

  -have limited awareness of behaviors

  -don't recognize association with PD or PD medications
- Caregivers/spouses/family bring to clinical attention often only *after* consequences are recognized

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Risk factors for impulse control disorders in PD

- Dopamine agonists
- to a lesser extent L-dopa, amantadine and MAOIs e.g. rasagiline
- Men – sexual ICDs, Women – eating, shopping/buying
- Younger and young onset PD, dyskinesias
- Depression and anxiety

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Dopamine dysregulation syndrome

- Drug addiction-like state marked by self-medication with inappropriately high doses of dopaminergic medications
- May be more common in early onset PD and males
- Co-occurs with ICDs, psychosis, panic attacks

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Punding

- Repetitive, purposeless behaviors, characterized by an intense preoccupation with specific items or activities – collecting, arranging, or taking apart objects
- Hobbyism – higher level repetitive behaviors, e.g. excessive internet use, reading, art work, work on projects

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APATHY IN PARKINSON'S DISEASE

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Apathy in Parkinson's disease

- May affect more than 1/3 of persons with PD
- Associated with more severe motor symptoms and cognitive impairment; more likely to be men and older age

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Apathy in Parkinson's disease

3+ symptoms lasting more than one month and impacting function

- Reduced initiative and decreased self-driven ideas
- Decreased curiosity and spontaneity
- Difficulty continuing activities to completion
- Indifference or blunted emotional reactions
- Lack of concern about personal problems
- Lack of affectionate behavior

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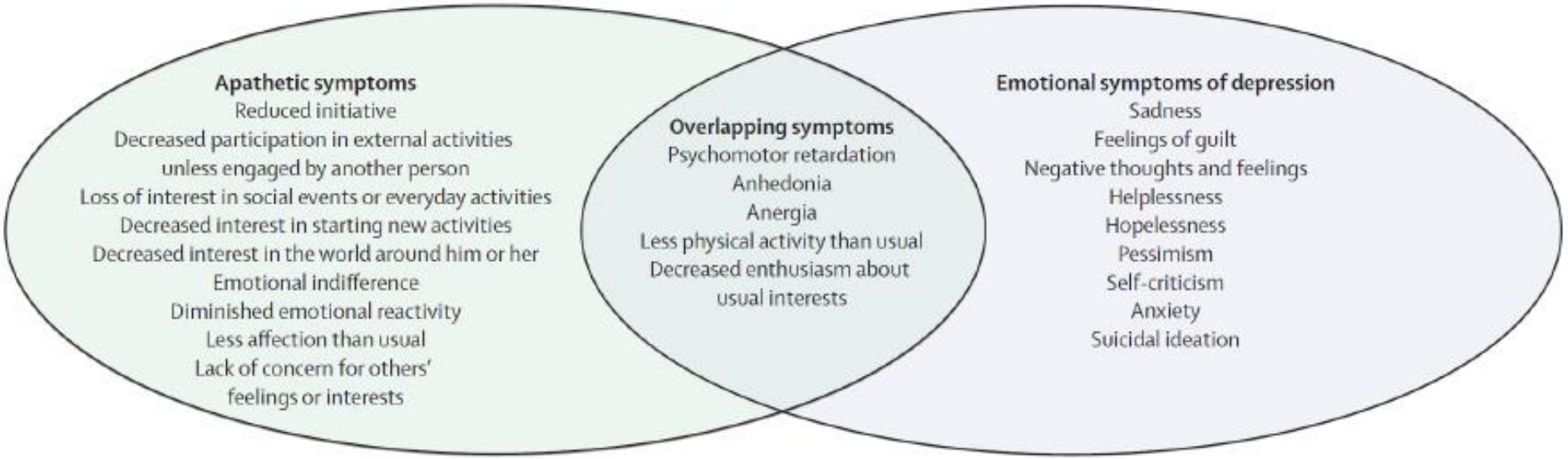
Apathy vs depression in PD



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Management of apathy in PD

- Non-pharmacological interventions

  -scheduled activities (social and physical)

  -establish clear and achievable goals

  -rewards conditional on completion of goals

  -recruit social support for activities

- Dopamine agonists, stimulants, and antidepressants can be tried

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Questions?

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