Depression, Anxiety, and Parkinson’s Disease

Ruth B. Schneider, MD
University of Rochester
National Parkinson Foundation Center of Excellence
April 23rd, 2016
Disclosures

Employment: University of Rochester Medical Center

Grants: Empire Clinical Research Investigator Program (New York State Department of Health), The Michael J. Fox Foundation, UR Department of Neurology Pilot Program, Canadian Institutes of Health Research

I will also be discussing off-label uses of certain drugs.
Outline

- Overview of Neuropsychiatric Symptoms
- Depression and Parkinson’s Disease
- Apathy and Parkinson’s Disease
- Anxiety and Parkinson’s Disease
- What You Can Do
Neuropsychiatric Symptoms

- Depression, apathy, anxiety, psychosis, and impulse control disorders are common in Parkinson’s disease.

- Presence negatively impacts ability to function and decreases quality of life.

- Depression and anxiety are associated with leaving the work force earlier.
Neuropsychiatric Symptoms

- Presence is associated with higher caregiver burden
- Presence prompts earlier initiation of dopaminergic treatment
- As clinicians we often fail to recognize neuropsychiatric symptoms
- But...we can treat these symptoms
Depression

Feeling sad, depressed, or hopeless
OR
Loss of interest or pleasure

Causes clinically significant distress of impairment
Depression

- **Prevalence:** 28-50% of people with Parkinson’s disease have depression
  - Present at all stages of Parkinson’s disease (before diagnosis – 10%-, early after diagnosis -14-28%-, in later stages)

- **Presentation:**
  - Major Depression: 7.5-50%
  - Minor Depression: 37%
  - Dysthymia 23%
  - Often co-occurs with anxiety
Depression

**Mechanism of Disease:** Likely reflects the same neurodegenerative processes responsible for other Parkinson’s disease symptoms rather than a reaction to the disease

- Prevalence of depression is higher in Parkinson’s disease than in other chronic diseases
- Depression can present years before the development of characteristic motor symptoms
- Dopamine, serotonin, and norepinephrine systems have been implicated and we know that damage occurs to all of these systems in Parkinson’s disease
- Limbic system involvement
Depression

**State of Treatment:** Most people with Parkinson’s disease and depression are untreated or under-treated

- Failure to recognize: focus on traditional motor symptoms
- Failure to diagnose: best screening tool has not been identified, lack of clinician knowledge
- Failure to treat: insufficient guidance, concern for side effects
So What Is the Good News?
Depression

- Cognitive Behavioral Therapy – Small controlled trials in Parkinson’s disease suggest benefit.

- Pharmacological Treatment
  - SAD-PD: paroxetine and venlafaxine XR better than placebo
  - Clinical trials also support the use of nortriptyline, desipramine, citalopram, and pramipexole
  - No worsening of motor symptoms with SSRIs
Depression

Exercise

Studies of depression in the general population suggest that exercise might be beneficial and it is currently recommended as an adjunct to medication in the treatment of depression.
Depression

A randomized clinical trial to evaluate the effects of rasagiline on depressive symptoms in non-demented Parkinson’s disease patients


Combined Rasagiline and Antidepressant Use in Parkinson Disease in the ADAGIO Study
Effects on Nonmotor Symptoms and Tolerability

Kara M. Smith, MD; Eli Eyal, MSc; Daniel Weintraub, MD; for the ADAGIO Investigators
Apathy

Lack of motivation
Apathy

- **Prevalence:** Estimates range from 17-60%.  
  - Can be seen with depression (28%), with dementia, or in isolation  
  - 17-27% of newly diagnosed

- **Presentation:**  
  - decreased goal-directed behavior, diminished emotional expression, cognitive inertia  
  - tend to be older  
  - higher risk of depression and cognitive impairment  
  - associated with worse motor impairment

- **Mechanism of Disease:** prefrontal cortex abnormalities
Apathy

State of Treatment: Difficult to treat

RESEARCH PAPER

Rivastigmine in apathetic but dementia and depression-free patients with Parkinson’s disease: a double-blind, placebo-controlled, randomised clinical trial

David Devos,1,2,3 Caroline Moreau,2,3 David Maltête,4 Romain Lefaucheur,4 Alexandre Kreisler,2,5 Alexandre Eusebio,6 Gilles Defer,7 Thavarak Ouk,1,3 Jean-Philippe Azulay,6 Pierre Krystkowiak,8,9 Tatiana Witjas,6 Marie Dellaux,2 Alain Destée,2,5 Alain Duhamel,10 Régis Bordet,1,3 Luc Defebvre,2,3 Kathy Dujardin2,3
Anxiety

Excessive fear, worry, or anxiety

Causes clinically significant distress or impairment
Anxiety

- **Prevalence:** 25-43% of people with Parkinson’s disease have an anxiety disorder
  - It is present at all stages of Parkinson’s disease (before diagnosis, early on after diagnosis *20-25%*, in later stages)

- **Presentation:** Anxiety can present in different ways
  - Generalized anxiety disorder: 3-21%
  - Agoraphobia: 2-16%
  - Panic disorder: 4-30%
  - Social phobia: 8-13%
  - Obsessive compulsive disorder: 1-6%
  - Not otherwise specified: 11-25%
  - Can be associated with fluctuations
Anxiety

**Mechanism of Disease:** Likely reflects the same neurodegenerative processes responsible for other Parkinson’s disease symptoms rather than a reaction to the disease

- Prevalence of anxiety is higher in Parkinson’s disease than in other chronic diseases
- Anxiety can present years before the development of characteristic motor symptoms
- Dopamine, serotonin, and norepinephrine systems have been implicated and we know that damage occurs to all of these systems in Parkinson’s disease
Anxiety

**State of Treatment:** Up to 50% of people with Parkinson’s disease and anxiety do not receive treatment for their anxiety

- Failure to recognize: anxiety can present in a variety of ways
- Failure to diagnose: best screening tool has not been identified, lack of knowledge
- Failure to treat: no guidelines regarding treatment
Anxiety

- Cognitive Behavioral Therapy – Some preliminary data to support CBT for the treatment of anxiety

A Pilot Study of a Cognitive–Behavioral Treatment for Anxiety and Depression in Patients With Parkinson Disease

Jessica S. Calleo, PhD1,2,3, Amber B. Amsperker, PhD1,3, Aliya I. Sarwar, MD2,3, Mark E. Kunik, MD, MPH1,2,3,4, Joseph Jankovic, MD3, Laura Marsh, MD2,3, Michele York, PhD2,3, and Melinda A. Stanley, PhD1,2,3,4
Anxiety

- Pharmacological Treatment – There have not been any studies designed to evaluate the treatment of anxiety with medication

- Practice – Benzodiazepines and selective serotonin reuptake inhibitors (SSRIs) are the most commonly prescribed

- Exercise – Reduces anxiety symptoms in patients with chronic illness
What You Can Do

- Tell your care team if you are experiencing symptoms!
- Exercise!
- Consider participating in research
How to Participate

- Clinicaltrials.gov
How to Participate

Foxtrialfinder.michaeljfox.org

EVERY CLINICAL TRIAL NEEDS VOLUNTEERS.
FOX TRIAL FINDER KNOWS WHICH TRIALS NEED YOU.

ABOUT FOX TRIAL FINDER

Fox Trial Finder was created by the Michael J. Fox Foundation to help increase the flow of willing participants — both people with Parkinson’s and control participants who do not have Parkinson’s — into the clinical trials that need them, accelerating the Parkinson’s drug development process.

Clinical trials are a final and crucial step on the path to developing better treatments for Parkinson’s patients today. Around the world, between 40% and 70% of trials face delays because of a lack of volunteers.

Fox Trial Finder will not only list ongoing PD clinical trials and research studies, but will match registrants to the trials that need them and are best-suited to their specific traits. Fox Trial Finder also has a secure and anonymous messaging system, making it much easier to find and act on suitable opportunities to get involved.

FIND A TRIAL

- I have Parkinson’s or am registering for someone who does
- I do not have Parkinson’s but would like to volunteer for a trial

I am located in
- Please choose a country
- Postal Code

GET STARTED

FROM MICHAEL J. FOX

“The answer is truly in all of us, working together. International collaboration is essential for speeding a cure for the 5 million Parkinson’s patients worldwide.”

— Michael J. Fox

TRIAL TEAMS

Do you need volunteers for your clinical trial? Find them with Fox Trial Finder!
How to Participate

- Researchmatch.org

Medical discoveries are not possible without volunteers like you.

Research positively impacts the lives of people every day, but research needs YOU. Too many studies end early because there aren't enough volunteers. We help, by matching you with researchers. Researchers need people with all types of conditions, and healthy people too. Everyone can be the perfect research match!
Questions?


http://www.biomedcentral.com/1471-244X/14/19


References


