Learning Objectives

- Delineate neuropsychiatric aspects of Parkinson’s disease (PD) and distinguish among different types of dementias on the basis of clinical characteristics.
- Identify the clinical features and risk factors of psychosis and PD psychosis.
- Differentiate the pharmacology, safety, and efficacy of available pharmacologic treatment options.
- Construct a therapeutic plan to manage non-motor symptoms of PD.
- Identify operational strategies to navigate new LTCF requirements and the revised survey process when considering the use of antipsychotic medications.
- Discuss the role of consultant pharmacists and the LTCF care team in managing the neuropsychiatric symptoms of PD.

Psychiatric comorbidities

- Depression
- Anxiety
- Dementia
- Psychosis
- Sleep disturbance, DDS
- Pseudobulbar Affect
Depression

Typical appearance of Parkinson's disease:
- Drooping eyes
- Stiff posture
- Stiffness of limbs
- Slowed movement
- Hand shaking
- Difficulty speaking

Control brain vs Parkinson's disease:
- Striatum
- Basal ganglia

Brain anatomy:
- Serotonin nuclei
- Raphé nuclei
Depression

- 30% of all PD patients
- SIGE CAPS
- Difficulties in diagnosis
- Hallmark features

Depression Treatment

- Treat PD optimally (adequate dose, minimal nighttime meds)
- Wholesome diet, exercise
- Meds: SSRI, SNRI, NDRI, Mirtazapine
- Psychotherapy: Supportive, CBT
- More treatment resistant, Caution with MAOIs
- Deep brain stimulation, ECT

Electroconvulsive Therapy (ECT)

- Electroconvulsive therapy (ECT) induces a mild seizure that alleviates depression for some people.
- This might allow neural re-wiring, and might boost neurogenesis.
Anxiety

• Up to 30% of all PD patients
• GAD, Panic Disorder, Social Phobia
• Psychological basis (low confidence, fears)
• Biological basis (low serotonin, low GABA, meds)

Anxiety Treatment

• Treat PD optimally (adequate dose, minimal nighttime meds)
• Wholesome diet, exercise
• Meds: SSRI, Benzodiazepines
• Psychotherapy: Supportive, CBT
• More treatment resistant, Caution with MAOIs
• Other therapies
Dementia

- 5 Fold increased chance
- 20% of all PD patients, 40% of those older than 70, 80% cumulative
- Lose 2.3 points annually MMSE
- Diagnosis, Hallmark features
- Subcortical dementia, depression induced

Dementia Treatment

- Cholinesterase inhibitors
- Wholesome diet, exercise
- Optimal management of general medical conditions

Psychosis

- Up to 50% all PD patients
- Hallucinations, Delusions
- Progression
- Morbidity and caregiver stress
Causative factors for psychosis

• Intrinsic: disease progression, visual processing deficits, UTI, delirium, underlying psychotic disorder

• Extrinsic: Antiparkinsonian meds, anticholinergic meds, time of the day, lighting, lack of sleep

Psychosis Treatment

• Lower dopaminergic meds

• Removing underlying triggers

• Quetiapine (Seroquel), Clozapine (Clozaril)

• Pimavanserine (Nuplazid)
**Sleep Disturbances**

- Sleep apnea (20% as compared to 5%)
- Insomnia (30%)
- Frequent awakening (sleep fragmentation)
- Nighttime urinary frequency (autonomic dysfunction)
- Nightmares often accompanied by physical action (REM behavioral disorder)
- Nighttime confusion, psychosis

---

**DDS (Dopamine Dysregulation Syndrome)**

- Stimulating desires for pleasure
- Symptoms: Increased gambling, eating, shopping, sexual activity
- Treatment: Lower meds. DBS

---

**Pseudobulbar affect**

- 26% all PD patients
- Symptoms
- Underdiagnosis
- Pathophysiology
Pseudobulbar affect treatment

- Dextromethorphan/Quinidine (Nuedexta)

Met Learning Objectives!

1) Learnt common psychiatric comorbidities of Parkinson's Disease

2) Learnt pathophysiological and psychological aspects behind these comorbidities

3) Learnt available treatment options
Your role in Decreasing Comorbidities Parkinson’s Disease

1) Help physicians lower polypharmacy and drug-drug interactions which can contribute to PD and psychiatric comorbidities

2) Recommend gradual dose reductions

3) Send prior authorization copies to prescribing physicians

Thank you!

?Questions