Coordinating Care Between Neurology and Psychiatry to Improve the Diagnosis and Treatment of Parkinson’s Disease Psychosis

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Disclosures

- **Speakers Bureau:** ACADIA Pharmaceuticals Inc.; Allergan; Avanir Pharmaceuticals Inc.
Utilize a team approach engaging psychiatry, neurology, and caregivers to optimize treatment for Parkinson’s disease psychosis.
### Long-Term, Progressive Course of Parkinson’s Disease Psychosis (PDP)

<table>
<thead>
<tr>
<th>Year</th>
<th>Psychosis +</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>41/230</td>
<td>18%</td>
</tr>
<tr>
<td>Year 4</td>
<td>51/142</td>
<td>36%</td>
</tr>
<tr>
<td>Year 8</td>
<td>45/88</td>
<td>51%</td>
</tr>
<tr>
<td>Year 12</td>
<td>12/25</td>
<td>48%</td>
</tr>
<tr>
<td>Cumulative</td>
<td>137/230</td>
<td>60%</td>
</tr>
</tbody>
</table>

- Particular attention should be given to patients who
  - Develop PD at an older age
  - Are in need of high doses of dopaminergic medication
  - Present with clinical symptoms of REM sleep behavior disorder

PDP a Source of Increasing Morbidity, Mortality, and Caregiver Burden

- Increased risk of hospitalization and nursing home placement\(^1,2\)
  - 24% of hospitalizations in patients with Parkinson’s disease (PD)
  - 29% of prolonged hospital stay and repeat admissions
  - PD patients with hallucinations 2.5x more likely to be admitted to a nursing home

- Caregiver burden increases as PDP progresses\(^3,4\)
  - Psychosis symptoms a strong predictor of caregiver burden
  - More than 40% of caregivers report a decline in health
  - 66% report that their close relationships suffer
  - Nearly 50% have increased depression scores

Patients and Caregivers Not Always Forthcoming with Disclosure of Symptoms of PDP

- Despite the having greater impact on quality of life than motor symptoms in PD, patients and/or caregivers often do not disclose symptoms\(^1\)

- In a survey of 242 PD patients\(^2\)
  - 41.5% reported that they did not disclose hallucinations
  - 65.2% did not disclose delusions

- Proposed reasons for nondisclosure included
  - Embarrassment
  - Did not realize they were related to PD
  - Forgot

Parkinson’s Disease Psychosis (PDP) has a Clinical Profile Distinct from Other Psychotic Conditions with Severity Increasing Over Time

Symptoms of PDP

- Visual: Both Complex and Minor (16%-72%)
- Auditory: 0%-22%
- Olfactory: ~11%
- Tactile: ~12%
- Gustatory: ~3%
- Somatic: ~1%
- Delusions: 1-14%

2007 Provisional NINDS-NIMH Diagnostic Criteria for PDP

- Requires the presence of at least 1 of the following symptoms
  - Hallucinations
  - Delusions
  - Illusion
  - False sense of presence

- Must occur in patients with prior diagnosed Parkinson’s disease

- Must be recurrent or continuous for at least 1 month

- Other causes excluded
  - Delirium, schizophrenia, Alzheimer’s disease psychosis, major depression with psychosis, and other psychiatric disorders

- May occur with or without
  - Insight, dementia, or Parkinson’s disease treatment

50% of PD patients with psychosis in a VA population of 2,547 were prescribed an antipsychotic for psychosis

Quetiapine prescribed most frequently in 66% of patients

30% receive high potency typical and atypical antipsychotics

Clozapine prescribed < 2%

Treatment Options for PDP: Clozapine*

- Requires monitoring for neutropenia
- Adverse effects: Serotonergic and anticholinergic
- Black box warning\(^1\)
  - Severe neutropenia (.38%)
  - Increased mortality in elderly patients with dementia-related psychosis

SAPS = Scale for positive symptoms; CGI: Clinical global impression scale
*Not approved by the FDA for the treatment of PDP
Treatment Options: Quetapine*

• Safety and efficacy studied in 4 randomized trials¹⁻⁴
  - Did not demonstrate improvement in BPRS
  - Did not worsen motor symptoms

• Black box warning⁵
  • Increased mortality in elderly patients with dementia-related psychosis

BPRS = Brief psychiatric rating scale
*Not approved by the FDA for the treatment of PDP
Treatment Options: Pimavanserin

- Pimavanserin resulted in a significant 37% improvement in SAPS-PD vs 14% for placebo (p = 0.006)
- No change in motoric function by UPDRS (parts 2 + 3)

UPDRS = Unified Parkinson’s Disease Rating Scale
Pimavanserin: CGI Change from Baseline

- Significant improvements were observed in CGI-S and CGI-I scores

Adverse Events Occurring in ≥5% in Either Treatment Group

<table>
<thead>
<tr>
<th>Event</th>
<th>Placebo (n = 94)</th>
<th>Pimavanserin (n = 104)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nausea</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Peripheral edema</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>Urinary tract infection</td>
<td>12%</td>
<td>13%</td>
</tr>
<tr>
<td>Fall</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td>Confusional state</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>Headache</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Hallucination</td>
<td>4%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Call to Action

- Recognize that psychosis is very common in patients with Parkinson’s disease
- Patient/caregivers may not volunteer information. Ask patients/caregivers about hallucinations
- Address potential impact of medication and other medical conditions on symptoms of psychosis