Clinical correlation of severe somnolence in Parkinson’s disease: results from an international naturalistic non motor symptoms cohort

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OBJECTIVE

• To assess clinical features correlated with sleepiness in Parkinson’s disease (PD) using cut-off values of the item 15 of the PD sleep scale (PDSS)

METHODS

• We classified 658 patients with PD into 3 subgroups based on PDSS item 15 scores, mild (>7), moderate (5-7), and severe (<5).

RESULTS

Severe sleepiness (PDSS <5) was present in 38.8% (N=255). Compared to patients with mild PDSS (PDSS >8) (N=360), those patients were of/had:

• older age (mean in years 68.5±10.15 versus 64.8±11.4),
• had a longer disease duration (mean in years 5.8±5.1 versus 4.9±5),
• higher Hoehn and Yahr state (median 3 (1-5) versus 2 (0-5)),
• higher non motor symptoms (NMS) scale total score (63±14.6 versus 39.1±31.3),
• higher rate of hallucinations on NMS scale (0.7±1.6 versus 0.2±1),
• more autonomic dysfunction on NMS scale (1±4.9±12.3 versus 9.4±9.4),
• higher clinical impression of severity index cognition (1±1.1 versus 0.4±0.7),
• higher Hospital anxiety and depression scale (13.4±8 versus 9.8±6.3),
• poorer quality of life (mean PDQ-8 total score 10.25±6.5 versus 6.6±5.5).

TABLE 2: SEVERE VS MILD SOMNOLENCE AND ASSOCIATED FEATURES

<table>
<thead>
<tr>
<th>PDSS15</th>
<th>Age</th>
<th>PD Disease duration</th>
<th>HY</th>
<th>PD onset</th>
<th>NMS Hallucinations</th>
<th>NMS Autonomic dysfunction</th>
<th>NMS Total</th>
<th>CISI-Cognition</th>
<th>NMS Quest</th>
<th>HADS total</th>
<th>PDQ total</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5</td>
<td>Number of patients</td>
<td>255</td>
<td>255</td>
<td>255</td>
<td>251</td>
<td>211</td>
<td>255</td>
<td>255</td>
<td>255</td>
<td>132</td>
<td>255</td>
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<tr>
<td>Median</td>
<td>72.000</td>
<td>9.000</td>
<td>3.000</td>
<td>64.000</td>
<td>8.000</td>
<td>12.000</td>
<td>45.000</td>
<td>1.000</td>
<td>11.000</td>
<td>13.000</td>
<td>9.000</td>
</tr>
<tr>
<td>&gt;8</td>
<td>Number of patients</td>
<td>360</td>
<td>360</td>
<td>360</td>
<td>357</td>
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<td>360</td>
<td>360</td>
<td>358</td>
<td>192</td>
<td>360</td>
</tr>
<tr>
<td>Median</td>
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<td>7.000</td>
<td>2.000</td>
<td>62.000</td>
<td>0.000</td>
<td>6.000</td>
<td>28.500</td>
<td>0.000</td>
<td>7.000</td>
<td>9.800</td>
<td>5.000</td>
</tr>
</tbody>
</table>

PDSS cut-off values of severe (PDSS <5) and mild (PDSS >8) somnolence and comparison of different clinical features among both groups including age, disease duration, disease onset, disease severity, presence/absence of hallucinations and autonomic features (assessed by a combination of sub-scores of the NMS), non-motor symptom scales, cognition and depression scores.

CONCLUSION

• Severe somnolence likely reflects a specific subtype (Park sleep) of PD (1)
• There is sensitivity to dopaminergic drugs and a higher NMS burden.
• These observations have clinical implications regarding personalised medication strategies in this subgroup.

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REFERENCES: