Craving for Sweets and other Compulsive Behaviors in Patients with Parkinson’s Disease

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**METHODS**

Questionnaires from the existing literature were identified to assess for a variety of compulsive behaviors that may exist in PD patients.

- South Oaks Gambling Screen® (SOGS)
- Yale-Brown Obsessive Compulsive Screen – Shopping Version® (YBOCS-SV)
- YBOCS – Computer Use Version (YBOCS-CUV); modified from the YBOCS-SV
- Sexual Compulsivity Scale® (SCS)
- YBOCS – Binge Eating® (YBOCS-BE)
- Craving Questionnaire (modified from Alcohol Craving Questionnaire®)

**Inclusion criteria**

- Idiopathic Parkinson’s disease (PD patients only)
- Able and willing to complete rating scales
- Written informed consent

**Exclusion criteria**

- Current participation in another clinical study
- History of unstable psychiatric disease (as determined by the investigator)

Age, duration of PD, current/past history of psychiatric problems, basic demographic information, PD medications, and UPDRS Part III were obtained on PD patients; age, and current/past history of psychiatric problems were obtained on controls. All subjects completed all questionnaires. Scales were scored according to published guidelines. Mean scores and prevalence of CBs amongst all PD patients and controls were compared, and in PD patients, according to use of dopamine agonists (DA), Pearson’s correlation coefficient was calculated for various factors in relation to scores on each scale.

**RESULTS**

Table 1: Characteristics of subjects screened for CBs

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>PD patients</th>
<th>Controls</th>
</tr>
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<tbody>
<tr>
<td>In</td>
<td>129</td>
<td>68</td>
</tr>
<tr>
<td>Average age (yr)</td>
<td>63.7</td>
<td>60.0</td>
</tr>
<tr>
<td>Average age at PD onset (yr)</td>
<td>56.2 (± 10.5)</td>
<td>n/a</td>
</tr>
<tr>
<td>Average duration of PD (yr)</td>
<td>7.6 (± 4.9)</td>
<td>n/a</td>
</tr>
<tr>
<td>Avg UPDRS motor (n=114)</td>
<td>20.2 (± 11.4)</td>
<td>n/a</td>
</tr>
<tr>
<td>Avg levodopa equiv. (mg)</td>
<td>652.1 (± 466.9)</td>
<td>n/a</td>
</tr>
<tr>
<td>Avg taking DA</td>
<td>80 (62.0%)</td>
<td>n/a</td>
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**CONCLUSIONS**

In this study, the presence of a CB including craving for sweets is defined by an elevated score on CB questionnaires. CBs occur with similar frequency among PD patients and controls (10.9% and 8.8% respectively).

- Patients with PD score significantly higher on the SOGS than controls. Scores for computer use and craving for sweets almost approached a significant difference.
- PD patients may experience greater urges or desires for risk/reward-seeking behaviors than controls.

CBs including craving are more common amongst PD patients taking a DA (12.5%) than those who are not (8.2%), though this was not statistically significant.

Scores on individual scales were not significantly different according to DA use.

The presence of any CB or craving in PD patients not on a DA is similar to that of the control population.

Amongst all PD patients, duration of PD correlated positively and significantly with scores on different scales, while age at onset of PD correlated negatively. History of anxiety and OCD were positively associated with several scales.

YBOCS equivalents and UPDRS motor scores (when available) did not contribute significantly to CB or differentiate PD patients with CB.

Patients with PD who experience CBs are characterized by younger age at onset of PD and longer PD duration.

The presence of >1 type of CB is common (6 of 14), and complaints of 1 CB should warrant investigation into the presence of other CBs.

Amongst PD patients with CB in general score significantly higher on all CB scales.

This may reflect a greater general propensity for reward-seeking behaviors of any type in PD patients.

In this context, the reasons a PD patient might develop greater problems with one type of behavior over another remain unknown.

Pathologic gambling is less common in our group of PD patients than reported in other studies (6.7% vs 12.5%). Craving for sweets was the most common CB in this group.

Greater numbers of PD patients and controls must be screened to identify the true prevalence and determinants of CB. This study is currently ongoing.

**REFERENCES**