INTRODUCTION

• Meibomian Gland Dysfunction (MGD) is a chronic disease that affects tear film instability leading to ocular irritation and dry eye.
• There is a need to characterize the severity of signs and symptoms of MGD using clinical and patient-reported outcomes.
• We report the results of the MGD Impact Questionnaire (MGD IQ), developed using FDA guidance and utilized to characterize the severity of disease impact on vision related activities.

METHODS

• Prospective, multicenter, non-interventional study with three cohorts based on standard criteria (no MGD, mild/moderate MGD, severe MGD).
• The MGD IQ included 10 items on a Likert scale measuring the difficulty of vision related activities due to MGD and DED.
• Pairwise comparisons between levels of MGD severity were performed using the Cochran Mantel-Haenszel method, and the weighted Kappa statistics was used for agreement.
• Given the variability in the signs and symptoms in subjects with DED, 2 subject visits (Day 1 and 22) were included in the study to assess the degree of concordance between the two sets of outcome measurements.

CONCLUSIONS

• MGD has a significant impact on ocular symptoms and vision related activities.
• The MGD IQ demonstrated that patients are impacted by vision related activities, which increased with severity.
• This novel MGD IQ instrument can help characterize severity and amplify the patient’s voice on burden of disease.

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RESULTS

Table 2: Subject Demographic Characteristics

<table>
<thead>
<tr>
<th>Group</th>
<th>Non-MGD (N = 25)</th>
<th>Mild/Moderate MGD (N = 25)</th>
<th>Severe MGD (N = 25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (y)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean ± SD</td>
<td>52.0 (8.34)</td>
<td>52.8 (6.28)</td>
<td>58.8 (11.48)</td>
</tr>
<tr>
<td>Male/Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>4 (16.0%)</td>
<td>2 (8.0%)</td>
<td>0</td>
</tr>
<tr>
<td>Black</td>
<td>19 (76.0%)</td>
<td>21 (84.0%)</td>
<td>17 (68.0%)</td>
</tr>
<tr>
<td>Asian</td>
<td>2 (8.0%)</td>
<td>0</td>
<td>5 (20.0%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1 (4.0%)</td>
<td>0</td>
<td>7 (28.0%)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (4.0%)</td>
<td>16 (64.0%)</td>
<td>18 (72.0%)</td>
</tr>
</tbody>
</table>

MGD IQ Questions:

In the past 7 days . . .

1. How much difficulty did you have working on the computer . . .
2. How much difficulty did you have reading . . .
3. How much difficulty did you have doing leisure activities (e.g., watching TV) . . .
4. How much difficulty did you have participating in social activities . . .
5. How much difficulty did you have driving . . .
6. How much difficulty did you have doing outdoor activities (e.g., swimming) . . .
7. How often did you have difficulty doing outdoor activities . . .
8. How much time did you spend taking care of your eyes . . .
9. How bothered were you by the amount of time spent taking care of your eyes . . .
10. How bothered were you by the appearance of your eyes . . . because of your MGD?