

# **Title: Comparing the Japanese Version of the Ocular Surface Disease Index and Dry**

## **Eye-related Quality-of-Life Score for Dry Eye Symptom Assessment**

**Authors:** Takenori Inomata<sup>1,2,3</sup> \* MD, PhD, MBA, Masahiro Nakamura<sup>4</sup> MD, PhD, Masao

Iwagami<sup>5</sup> MD, MPH, MSc, PhD, Akie Midorikawa-Inomata<sup>3</sup> RN, MPH, Yuichi Okumura<sup>6</sup>

MD, Keiichi Fujimoto<sup>6</sup> MD, Nanami Iwata<sup>6</sup>, Atsuko Eguchi<sup>3</sup>, Hurramoy Shokirova<sup>6</sup> MD,

Maria Miura<sup>6</sup> MD, Kenta Fujio<sup>6</sup> MD, Ken Nagino<sup>3</sup>, Shuko Nojiri<sup>7</sup> MPH, PhD, and Akira

Murakami<sup>1,6</sup> MD, PhD.

## **Supplementary Information**

**Table S1. J-OSDI score at the baseline and follow-up visits**

| Visits   | Baseline    | Follow-up   |         |
|--|-------------|-------------|---------|
| Item   | n = 169     | n = 169     | P value |
| J-OSDI total score, 0–100                      | 31.6 ± 22.3 | 32.1 ± 22.6 | 0.649   |
| Ocular symptoms, 0–100                         | 30.3 ± 21.6 | 30.6 ± 21.6 | 0.741   |
| Eyes that are sensitive to light?              | 1.38 ± 1.30 | 1.34 ± 1.20 | 0.632   |
| Eyes that feel gritty?                         | 0.88 ± 1.01 | 1.02 ± 1.01 | 0.572   |
| Painful or sore eyes?                          | 0.80 ± 0.96 | 0.88 ± 0.91 | 0.572   |
| Blurred vision?                                | 1.43 ± 1.17 | 1.45 ± 1.23 | 0.781   |
| Poor vision?                                   | 1.57 ± 1.23 | 1.50 ± 1.27 | 0.164   |
| Vision-related function, 0–100                 | 30.0 ± 27.6 | 30.3 ± 26.2 | 0.817   |
| Reading?                                       | 1.36 ± 1.32 | 1.34 ± 1.24 | 0.738   |
| Driving at night?                              | 0.93 ± 1.31 | 0.95 ± 1.20 | 0.647   |
| Working with a computer or bank machine (ATM)? | 1.36 ± 1.36 | 1.32 ± 1.28 | 0.890   |

|   |             |             |       |
|---|-------------|-------------|-------|
| Watching TV?                                  | 1.07 ± 1.12 | 1.10 ± 1.11 | 0.690 |
| Environmental triggers, 0–100                 | 33.9 ± 30.8 | 34.5 ± 29.4 | 0.684 |
| Windy conditions?                             | 1.49 ± 1.36 | 1.49 ± 1.30 | 0.643 |
| Places or areas with low humidity (very dry)? | 1.22 ± 1.26 | 1.37 ± 1.19 | 0.261 |
| Areas that are air conditioned?               | 1.52 ± 1.37 | 1.57 ± 1.28 | 0.551 |

11 J-OSDI: Japanese version of the Ocular Surface Disease Index. P values were determined  
12 using Student's t-tests. Data are considered statistically significant at  $P < 0.05$ ,  $P < 0.01$ ,  
13 and  $P < 0.001$ .

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15 **Table S2. DEQS at the baseline and follow-up visits**

| Visits   | Frequency   |             |         | Degree      |             |         |
|--|-------------|-------------|---------|-------------|-------------|---------|
|  | Baseline    | Follow-up   |         | Baseline    | Follow-up   |         |
| Item   | n = 169     |             | P value | n = 169     |             | P value |
| DEQS summary score, 0–100  | 27.4 ± 22.6 | 27.3 ± 22.3 | 0.879   | 27.6 ± 22.6 | 28.7 ± 22.4 | 0.237   |
| Bothersome Ocular Symptoms, 0–100  | 30.9 ± 23.2 | 30.8 ± 22.2 | 0.898   | 31.9 ± 22.9 | 33.1 ± 22.8 | 0.272   |
| Foreign body sensation   | 1.18 ± 1.2  | 1.22 ± 1.2  | 0.596   | 1.31 ± 1.2  | 1.43 ± 1.3  | 0.143   |
| Dry sensation in the eyes  | 1.98 ± 1.4  | 1.91 ± 1.3  | 0.331   | 1.88 ± 1.3  | 1.88 ± 1.2  | 0.936   |
| Painful or sore eyes   | 0.95 ± 1.2  | 0.95 ± 1.1  | 0.933   | 1.12 ± 1.3  | 1.24 ± 1.3  | 0.348   |
| Ocular fatigue   | 1.76 ± 1.4  | 1.72 ± 1.3  | 0.583   | 1.69 ± 1.3  | 1.70 ± 1.3  | 0.800   |
| Heavy sensation in the eyelids   | 0.77 ± 1.2  | 0.82 ± 1.2  | 0.521   | 0.80 ± 1.2  | 0.85 ± 1.1  | 0.554   |
| Redness in the eyes  | 0.80 ± 1.1  | 0.80 ± 1.2  | 0.999   | 0.86 ± 1.1  | 0.85 ± 1.2  | 0.887   |
| Impact on Daily Life, 0–100  | 24.7 ± 24.0 | 24.9 ± 23.9 | 0.898   | 24.3 ± 23.9 | 25.7 ± 23.8 | 0.213   |
| Difficulty opening the eyes  | 0.80 ± 1.1  | 0.90 ± 1.2  | 0.254   | 0.86 ± 1.2  | 0.98 ± 1.2  | 0.159   |
| Sensitivity to bright light  | 1.29 ± 1.3  | 1.28 ± 1.2  | 0.743   | 1.31 ± 1.2  | 1.30 ± 1.3  | 0.775   |
| Problems with the eyes when reading  | 1.42 ± 1.3  | 1.35 ± 1.3  | 0.238   | 1.29 ± 1.2  | 1.31 ± 1.2  | 0.794   |
| Problems with the eyes when watching television or looking at a computer or cell phone | 1.29 ± 1.4  | 1.22 ± 1.3  | 0.324   | 1.19 ± 1.2  | 1.24 ± 1.3  | 0.583   |

|   |            |            |       |            |            |       |
|---|------------|------------|-------|------------|------------|-------|
| Feeling distracted because of eye symptoms  | 1.29 ± 1.3 | 1.37 ± 1.3 | 0.332 | 1.23 ± 1.2 | 1.36 ± 1.3 | 0.096 |
| Eye symptoms after work                     | 0.95 ± 1.2 | 0.98 ± 1.2 | 0.872 | 0.93 ± 1.2 | 1.03 ± 1.2 | 0.319 |
| Eye symptoms affect work                    | 0.85 ± 1.2 | 0.88 ± 1.2 | 0.664 | 0.90 ± 1.3 | 0.95 ± 1.2 | 0.616 |
| Reluctant to go out because of eye symptoms | 0.33 ± 0.8 | 0.28 ± 0.8 | 0.367 | 0.33 ± 0.8 | 0.35 ± 0.9 | 0.762 |
| Feeling depressed because of eye symptoms   | 0.77 ± 1.2 | 0.70 ± 1.1 | 0.238 | 0.80 ± 1.2 | 0.75 ± 1.1 | 0.351 |

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16 DEQS; the Dry Eye-Related Quality-of-Life Score. P values were determined using

17 Student's t-tests. Data are considered statistically significant at  $P < 0.05$ .

18 **Figure S1. The correlation between the J-OSDI and DEQS scores at the follow-up**  
19 **visit.** Pearson's correlation coefficients and scores between the J-OSDI and DEQS are  
20 shown in the heatmap as a colour gradient. Heatmap of the correlation between the J-OSDI  
21 and DEQS–Frequency at the follow-up visit (a). Heatmap with clustering of the J-OSDI  
22 scores and DEQS–Frequency in all participants (b). Heatmap of the correlation between the  
23 J-OSDI and DEQS–Degree at the follow-up visit (c). Heatmap with clustering of the J-  
24 OSDI scores and DEQS–Degree in all participants (d). Color scale bars: Correlation  
25 coefficients (a and c) and the 5-point scale for each question scores (b and d). Axis: each  
26 question from the OSDI and DEQS.

