CORRIGENDUM

MJS PUBLISHING

Inhibitory Effect of 505 nm Green Light Emitting Diode on Melanin Synthesis in Cellular Experiments and a Human Intervention Study

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Following a comment from a reader, we carefully reviewed the consistency between the graphical presentation in Figure 4B and the corresponding statistical descriptions in the figure legend and Results section. During this review, we recognized that the original wording did not clearly distinguish between ratio-based changes presented in Figure 4B and the statistical analyses performed using absolute values, which may have led to potential misunderstanding regarding statistical significance.

To improve clarity and ensure consistency between the figure presentation and the statistical interpretation, we propose revisions to the Figure 4 legend, the corresponding text in the Results section, and the statistical annotation in Figure 4B. These revisions do not involve any changes to the underlying data, analytical methods.

In addition, we would like to revise the Conflict of Interest statement to ensure full transparency.

RESULTS

Human intervention study of GLED mask

Original

A human intervention study using GLED-equipped masks was conducted with randomized, blinded one-sided GLED placement (Fig. 4A). After 8 weeks, significant improvements were observed in melanin index ($p<0.001$), skin brightness (L*) ($p<0.001$), skin colour index (ITA°) ($p<0.05$), and the number of spots ($p<0.01$), with all parameters improving over time (Fig. 4B). Clinical photos showed visible enhancements after 8 weeks (Fig. 4C).

Revised

A human intervention study using GLED-equipped masks was conducted with randomized, blinded one-sided GLED placement (Fig. 4A). After 8 weeks, significant improvements were observed in melanin index ($p<0.001$), skin brightness (L*) ($p<0.001$), skin colour index (ITA°) ($p<0.05$), and the number of spots ($p<0.01$) when absolute values were compared with baseline, with all parameters improving over time. The ratio-based comparison shown in Figure 4B demonstrated a statistically significant difference in the number of spots. Clinical photos showed visible enhancements after 8 weeks (Fig. 4C).

ACKNOWLEDGEMENTS

Original

The authors have no conflicts of interest to declare.

Revised

Four authors, Shota SUZUKI, Takayuki TAKECHI, Mayumi ICHIKAWA, and Kentaro YAMAZAKI, are employees of YA-MAN Ltd. The study was conducted under a collaborative research agreement with YA-MAN Ltd.

ORIGINAL

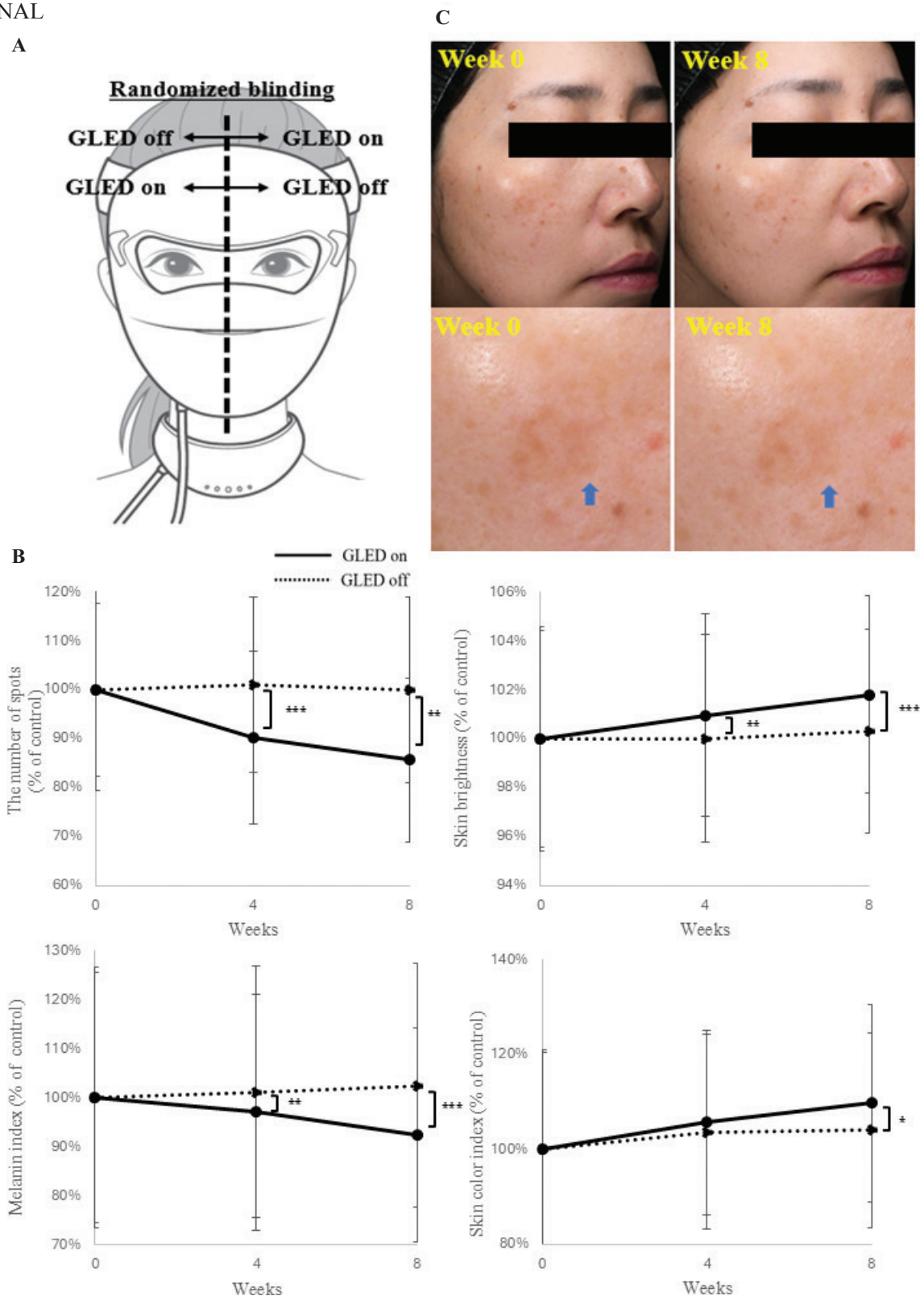

Fig. 4. Human intervention study of GLED mask. (A) We conducted a human intervention study using masks equipped with GLED on 1 side and without GLED on the other, with the placement randomized and blinded to the investigators, to explore its clinical applicability. (B) After 8 weeks of continuous use, the GLED ON side showed significant improvements in all evaluated parameters, including melanin levels ($p < 0.001$), skin brightness ($p < 0.001$), skin colour index ($p < 0.05$), and the number of spots ($p < 0.01$), compared with the LED OFF side. Furthermore, the progression of values at 4 and 8 weeks demonstrated that the longer the irradiation period, the greater the improvement effects observed across all parameters. (C) Clinical photographs, including facial images and magnified views of the cheek area, demonstrated a clear visual improvement in pigmentation and skin transparency after 8 weeks of GLED mask irradiation compared with pre-irradiation (blue arrows).

REVISED

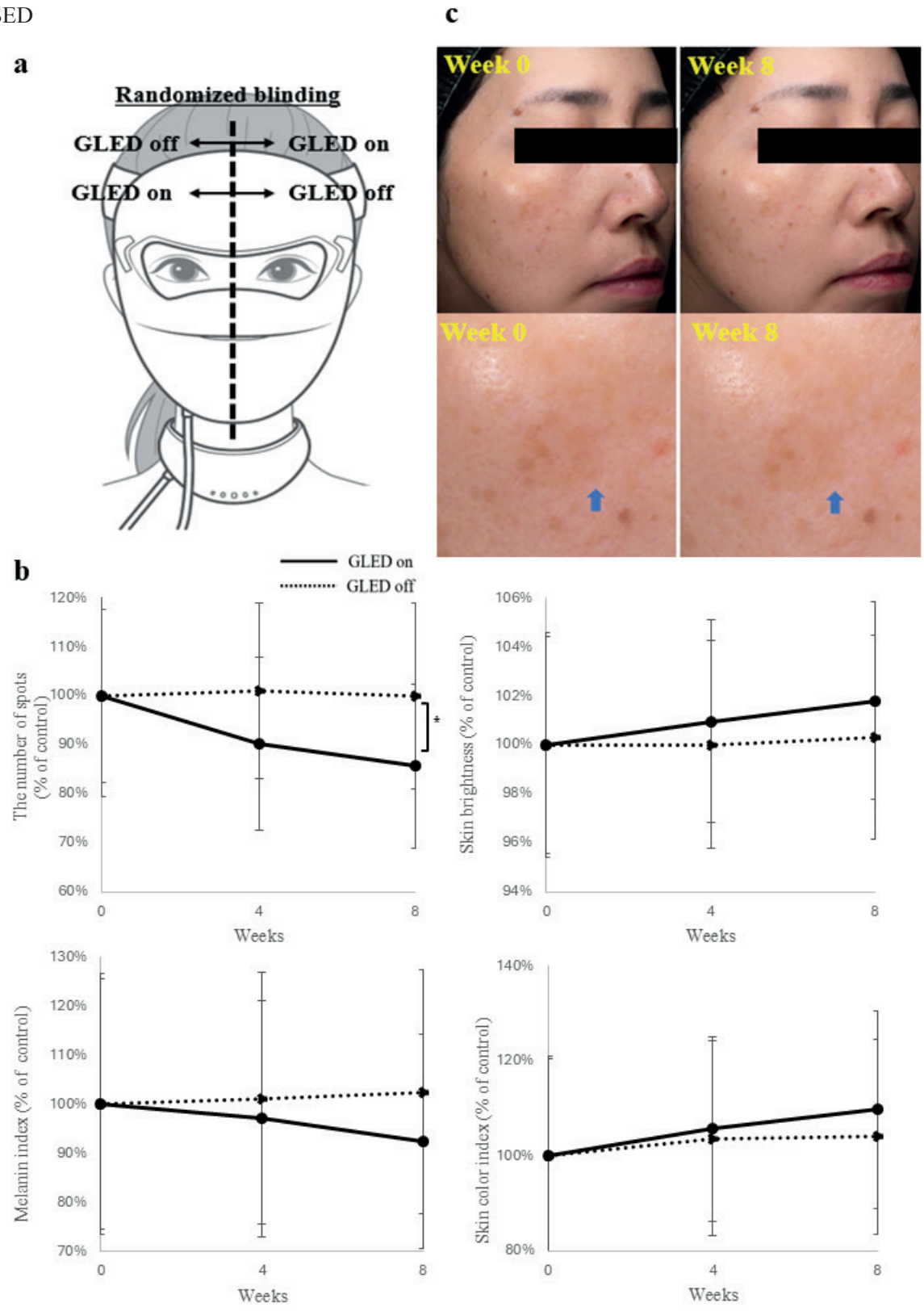

Fig. 4. Human intervention study of GLED mask. (A) We conducted a human intervention study using masks equipped with GLED on 1 side and without GLED on the other, with the placement randomized and blinded to the investigators, to explore its clinical applicability. (B) After 8 weeks of continuous use, the GLED ON side showed improvements in all evaluated parameters, including melanin levels, skin brightness, skin colour index, and the number of spots, compared with the LED OFF side. A statistically significant reduction was observed in the number of spots at 8 weeks ($p = 0.041$). Furthermore, the progression of values at 4 and 8 weeks demonstrated that the longer the irradiation period, the greater the improvement effects observed across all parameters. (C) Clinical photographs, including facial images and magnified views of the cheek area, demonstrated a clear visual improvement in pigmentation and skin transparency after 8 weeks of GLED mask irradiation compared with pre-irradiation (blue arrows).