MGD Treatment: Comparison of MiboFlo and Bruder Warm Compress

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PURPOSE
Evaluate and compare efficacy of the MiboFlo ThermoFlo (MiboFlo) lid-warming device and the Bruder Moist Heat Compress (Bruder Mask) in symptomatic dry eye subjects.

METHODS
33 Subjects: (9 males, 24 females; mean age 30)

Each subject had one month of bilateral MGD treatment: one eye randomly assigned the MiboFlo (3 in-office treatments), the other the Bruder Mask (twice daily warm compress treatments).

Efficacy evaluated subjectively by the SPEED II questionnaire and objectively by non-invasive KIBUT (NIKIBUT), number of expressible meibomian glands in three quadrants of the lower eyelids (MGE score), and degree of Lissamine Green staining.

RESULTS

<table>
<thead>
<tr>
<th></th>
<th>Bruder Mask</th>
<th>MiboFlo</th>
<th>Bruder vs. Mibo</th>
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</thead>
<tbody>
<tr>
<td>SPEED II Score</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>0.32</td>
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<tr>
<td>1st NIKIBUT</td>
<td>0.69</td>
<td>0.54</td>
<td>0.95</td>
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<tr>
<td>Avg. NIKIBUT</td>
<td>0.43</td>
<td>0.048</td>
<td>0.40</td>
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<tr>
<td>MGE Score</td>
<td>0.12</td>
<td>0.27</td>
<td>0.80</td>
</tr>
<tr>
<td>Lissamine Green Staining</td>
<td>0.59</td>
<td>0.41</td>
<td>0.15</td>
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</table>

Table 1. Statistical significance, Wilcoxon Test

CONCLUSION
Both methods improved subjective symptoms significantly, but objective tests were less definitive. The MiboFlo in-office treatments are not compliance dependent, but the Bruder Mask home treatments may be more convenient, factors the doctor should consider when prescribing the appropriate MGD treatment.

FURTHER INVESTIGATION
- Meibomian gland expression post-MiboFlo treatment
- Efficacy of Bruder Mask OU compared to MiboFlo OU
- Combination treatment: Lid-warming device and heat compress

Figure 1. MiboFlo
Figure 2. Bruder Mask
Figure 3. Mean of collected data

Provided by their respective companies at no cost for research use: Thirty (30) Bruder® Stye Compresses (unilateral mask), Three (3) TearScience® Korb Meibomian Gland Evaluators™