MANUAL LYMPHATIC DRAINAGE TECHNIQUES REDUCES POSTOPERATIVE FACIAL SWELLING AFTER THIRD MOLAR SURGERY

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Summary
Manual lymphatic drainage (MLD) is an unique manual intervention pioneered by Emil and Estrid Vodder.

The aim of this study was to investigate whether the application of MLD, in case of surgically removal of impacted third molars, can efficiently diminish postoperative swelling.

Material and methods: Sixty patients with mandibular third molars, that required surgical removal, were divided into two equal groups: MLD group (30 patients) and control group (30 patients). Each patient underwent lower third molar extraction. MLD was performed on the neck region, using Vodder’s method, once a day - immediately after extraction, until the suture removal. Swelling was evaluated prior to operation, on the first, third and seventh postoperative day with the objective method - a linear measurement. The six landmarks of measurement were as follows: tragus-lip junction, tragus-pogonion, mandibular angle-external corner of eye, mandibular angle-ala nasi, mandibular angle-lip junction, mandibular angle-median point of chin.

Results: All lines demonstrated a significant reduction of swelling in the MLD group compared to the control group.

Conclusion: MLD is an efficient method for managing postoperative swelling after the removal of impacted third mandibular molars.
examine whether the mean change at the MLD-treated patients was significantly greater than the change in the control group.

**Results:** Male/female ratio was 1:1. Left/right tooth ratio was 1:1. The mean age was 36.4±1.6 years in MLD group and 29.7±1.3 years control group. Table 1 shows the results of measurement. All lines demonstrated a significant reduction of swelling on the MLD group compared to control group.

**Discussion:** In most cases, the removal of impacted third molars will lead to a significant degree of tissue trauma and the patient develops postoperative facial swelling. The facial swelling will reach its maximum 48 to 72 hours after surgery. Postsurgical swelling is a major disadvantage and affects patient's life quality. To prescribe a medication such as corticosteroids, nonsteroidal anti-inflammatory drugs, a combination of corticosteroids and nonsteroidal anti-inflammatory drugs, or enzyme preparations such as serratiopeptidase is a method to reduce swelling. In addition, nonmedication methods are available to decrease these side effects, including cryotherapy and soft laser.

Traumatic injuries alter lymph circulation, causing local edema. MLD increases transport capacity of lymph vessels and got a beneficial effect on the soft tissues after surgical removal of third mandibular molars. MLD leads to significant reduction in facial swelling and is a relatively safe method to treat complications after third molar surgery.

**Conclusion:** MLD is an efficient method for managing postoperative swelling after the removal of impacted third mandibular molars.

**Table 1**

<table>
<thead>
<tr>
<th>Type of lines</th>
<th>Measurement in cm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prior to surgery</td>
</tr>
<tr>
<td></td>
<td>MLD group</td>
</tr>
<tr>
<td>Tragus-lip junction</td>
<td>9.39±0.34</td>
</tr>
<tr>
<td>Tragus-pogonion</td>
<td>9.67±0.24</td>
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<tr>
<td>Mandibular angle-external</td>
<td>8.2±0.42</td>
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<tr>
<td>corner of the eye</td>
<td>10.3±0.57</td>
</tr>
<tr>
<td>Mandibular angle-ala nasi</td>
<td>10.6±0.36</td>
</tr>
<tr>
<td>Mandibular angle-lip junction</td>
<td>14.5±0.70</td>
</tr>
</tbody>
</table>

Bibliography: