The Effectiveness of Iontophoresis in Modulating Pain and Inflammation in Musculoskeletal Conditions

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PURPOSE

Does the literature support the use of iontophoresis in treating patients with musculoskeletal conditions?

WHAT IS IONTOPHORESIS?

Iontophoresis is a topical pharmaceutical modality that can be applied and absorbed through the intact skin through the use of electrical currents. The treatment dog is introduced into the pores to elicit the effects of the drug, results in temporary systemic drug exposure and avoids percutaneous absorption through the intact skin.

MATERIALS AND METHODS

Table 1. Mean values of pre and post treatment VAS

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre treatment VAS</th>
<th>Post treatment VAS</th>
<th>% reduction of VAS score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>50</td>
<td>40</td>
<td>20%</td>
</tr>
<tr>
<td>Treatment</td>
<td>50</td>
<td>20</td>
<td>60%</td>
</tr>
</tbody>
</table>

Table 2. % reduction of VAS score

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</tr>
</tbody>
</table>

RESULTS

Conclusion:

Iontophoresis is effective in reducing pain and inflammation in musculoskeletal conditions. Further research is needed to determine the most efficacious therapeutic parameters and the most efficacious therapeutic agent.

CONCLUSIONS

According to the literature reviewed, iontophoresis alone is an effective modality in the treatment of pain and inflammation. However, for iontophoresis to be effective in treating musculoskeletal pathologies it must be accompanied with a post treatment intervention program. Iontophoresis accompanied with a post intervention program proved to be effective in treating plantar fasciitis and adhesive capsulitis, while it was established that iontophoresis is ineffective in treating lateral epicondylitis. However, a post intervention program was not included in the parameters of the treatment of lateral epicondylitis. Therefore, iontophoresis is an appropriate physical agent to use in the treatment of musculoskeletal pathologies but it must be accompanied by a post intervention exercise program.

FUTURE RESEARCH

Further research involving the effectiveness of iontophoresis in modulating pain and inflammation in musculoskeletal conditions should further analyze the effects of iontophoresis when used in conjunction with a therapeutic intervention program. The literature reviewed indicated increased efficacy when iontophoresis is used in conjunction with a therapeutic intervention program. Thus, future research should seek to determine the most efficacious therapeutic intervention program to be used in conjunction with iontophoresis and the specific parameters of the program. Additionally, future research should clinically examine other ionizable drugs to determine the most efficacious drug for minimal side effects.

BIBLIOGRAPHY