

Are non-pharmacological interventions to alleviate pain during orthodontic treatment as effective as pharmacological interventions?

Précis

Although many non-pharmacological interventions have been investigated, there is insufficient evidence to support that any modality is as effective as pharmacological intervention, which should be used to alleviate orthodontic pain.

Abstract

Statement of the problem: The majority of patients who receive orthodontic treatment experience pain related to it. Although almost all orthodontic procedures are associated with pain, initial activation of archwires and separator placement are the most commonly associated procedures. Pharmacological interventions have been proven effective at alleviating this pain but are associated with a number of adverse side effects. Several non-pharmacological interventions have been researched to provide a safer alternative to drugs.

Purpose of the study: To review the evidence for the various non-pharmacological interventions reported in the literature and evaluate whether they are as effective as pharmacological intervention.

Materials and methods: An electronic search of the literature was conducted using PubMed with keywords "orthodontics" and "pain". A hand search of relevant orthodontic journals was also conducted.

Results and conclusions: No non-pharmacological intervention has been proven as effective as pharmacotherapy. Although some modalities, like cold laser therapy, are promising, higher-quality research is needed and until then pharmacological intervention remains the gold standard.