Table des matières

Pain after orthodontic treatment

Douleur après traitement orthodontique

1. Systematic Reviews and Meta-Analysis

1.1. Generic Acupuncture

1.1.1. Li 2024

Li J, Li S, Chen H, Feng J, Qiu Y, Li L. The effect of physical interventions on pain control after orthodontic treatment: A systematic review and network meta-analysis. PLoS One. 2024 Feb 22;19(2):e0297783. https://doi.org/10.1371/journal.pone.0297783

Objective	Pain is a frequent adverse reaction during orthodontic treatment, which can significantly reduce treatment compliance and compromise the expected treatment effect. Physical interventions have been used to alleviate pain after orthodontic treatment, but their effectiveness is controversial. This study used a network meta-analysis to assess the efficacy of various physical interventions typically used in managing pain after orthodontic treatment, with a view to provide evidence-based recommendations for representative interventions for orthodontic pain relief during peak pain intensity.
Methods	A systematic search of six electronic databases, from their respective inception dates, was conducted to identify relevant literature on the efficacy of various typical physical interventions for managing pain after orthodontic treatment. Literature screening was performed according to the Cochrane System Evaluator's Manual. Stata 16.0 was used to assess heterogeneity, inconsistency, publication bias, and sensitivity to generate an evidence network diagram and conduct a network meta-analysis.
Results	In total, 771 articles were reviewed to collect literature on interventions, including low-level laser therapy (LLLT), vibration, **acupuncture**, and chewing. Of these, 28 studies using a visual analog scale (VAS) as an outcome indicator were included. The results showed that LLLT, vibration, **acupuncture**, and chewing effectively relieved the pain symptoms in patients after orthodontic treatment. At 24 h post-treatment, LLLT (surface under the cumulative ranking curve [SUCRA] = 80.8) and vibration (SUCRA = 71.1) were the most effective interventions. **After 48 h of treatment, acupuncture (SUCRA = 89.6) showed a definite advantage as the best intervention**.
Conclusion	LLLT, vibration, acupuncture, and chewing can alleviate pain associated with orthodontic treatment. Among these interventions, acupuncture was found to be the most effective at 48 h after orthodontic treatment. In addition, **acupuncture** demonstrated long-lasting and stable pain-relieving effects. However, further studies are needed to determine the most suitable equipment-specific parameters for acupuncture in relieving pain associated with orthodontic treatment.