INPLASY

Lasers in the Management of Recurrent Aphthous ulcers of oral cavity: A Systematic Review of Randomized Control Trials

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ADMINISTRATIVE INFORMATION

Support - No funding.

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 22 November 2024 and was last updated on 22 November 2024.

INTRODUCTION

Review question / Objective "In patients with recurrent aphthous ulcers, is laser therapy more effective than conventional treatment methods?"

Rationale This review aims to summarize the current evidence on the effectiveness of laser therapy in treating aphthous ulcers.

Condition being studied Recurrent aphthous ulcers, also known as canker sores or recurrent aphthous stomatitis (RAS), represent a prevalent condition marked by multiple small, round ulcers on the oral mucosa. Aphthous ulcers typically recur following treatment, thus the designation "recurrent aphthous ulcers." In a large-scale trial in the United States involving 51,471 children, researchers determined that RAS has a lifetime prevalence of approximately 40%. Recurrent aphthous stomatitis (RAS) is recognized as the most prevalent ulcerative condition in the oral cavity. The etiology of RAS remains unidentified. Proposed etiologies include genetic, nutritional, traumatic, or viral factors.

METHODS

Search strategy The search strategy was formulated using the PICO framework according to the research: "In patients with recurrent aphthous ulcers, is laser therapy more effective than conventional treatment methods?" Two researchers (SA and ZA) searched for relevant trials using this question across three databases: PubMed, Scopus, and EBSCOHost.

Participant or population P –Patients with recurrent aphthous ulcers.

Intervention I –Low-level laser therapy/Lasers.

Comparator C – Placebo or any other treatment.

Study designs to be included Randomised controlled trials only.

Eligibility criteria (1) Randomized controlled trials on humans comparing the lasers with control or placebo (2) English language (3) Any age group.

Information sources PubMed, Scopus, and EBSCOHost.

Main outcome(s) Reduction of pain.

Additional outcome(s) reduction in healing time and a reduction in ulcer size.

Data management The eligibility of trials will be independently evaluated by two authors (ZA, SA).

Quality assessment / Risk of bias analysis The ROB 2 tool will be used to assess the risk of bias.

Strategy of data synthesis The data will be qualitatively reviewed.

Subgroup analysis Not applicable as this is a systematic review without quantitative meta-analysis.

Sensitivity analysis Not applicable as this is a systematic review without quantitative meta-analysis.

Language restriction English.

Country(ies) involved United Arab Emirates.

Keywords Laser; aphthous ulcers; PBMT, LLLT, oral ulcers.

Dissemination plans Publish in peer review journal.

Contributions of each author
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