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## Role of laser or photodynamic therapy in treatment of denture stomatitis: A systematic review

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**Introduction:** Denture stomatitis (DS) is an inflammatory oral lesion that mostly occurs in the elderly denture wearers and can affect their quality of life, negatively. The classic treatment plan for DS is using topical or systemic fungicidal drugs that are not free of side effects.

**Aim:** The aim of the present study was to evaluate the clinical outcomes of using low-level laser therapy (LLLT) or photodynamic therapy (PDT) in the treatment of DS by reviewing high quality released articles.

**Methods:** Searching the Cochrane Library, Web of Science, Google Scholar, PubMed, ProQuest, Scopus, and Ovid databases was performed with a focus on proper key words. Related titles and abstracts, up to May 2017, were screened and selected based on defined inclusion criteria. The full texts of all selected articles were extensively read, and citation lists were checked for any missing references. All randomized controlled trials (RCT) were subjected to quality assessments.

**Results:** A total of 760 articles were included in the study after the initial search. Six studies were selected to be assessed for eligibility and four of them were reliable enough in methodology and randomization to be included in the study. The applied wavelength varied from 455 nm to 830 nm. Also, the highest exposed energy was 122 J/cm<sup>2</sup> and the lowest rate was 1 J/cm<sup>2</sup>. The time of exposure differed from 10 s to 26 min in the reviewed studies.

**Conclusions:** Based on the available RCTs, the LLLT had a significant role in the clinical treatment of DS. However, the results of PDT were similar to conventional antifungal therapies.

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