

Effects of natural extracts in the treatment of oral ulcers: A systematic review of evidence from experimental studies in animals

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Abstract

Background: To evaluate the clinical and histopathological effects of natural extracts in the treatment of oral ulcers induced in animal experimental models. **Material and Methods:** We carried out a search in the Medline, Scopus, WoS and Embase databases from the start of the databases to December 2020, and also made a manual search of the references. The search and selection were carried out by two researchers independently. The inclusion criteria were: experimental studies in animal models, in english, which complied with the study object. **Results:** A total of 705 articles were identified. After selection by title, abstract and full text, 19 articles were finally included. Natural extracts of *Jasminum grandiflorum*, *Ficus deltoidea*, curcumin and *Bixina orellana* provoked a significantly greater reduction in the size of the ulcer. Extracts of *Salvadora persica*, *Musa acuminata*, *Ganoderma lucidum* mycelia and *Bixina Orellana*, as well as preparations of Kouyanqing Granule and curcumin, were able to reduce levels of pro-inflammatory cytokines and increase the expression and serum levels of growth factors and anti-inflammatory cytokines. Extracts of *Piper sarmentosus*, *Cannabis sativa* and *Bletilla striata* provoked a reduction in the severity of the histological inflammation. No significant differences were observed compared to controls in the treatments with extracts of *Cannabis sativa*, *Aloe barbadensis* Miller and *Malva sylvestris* in reducing the area of the oral ulcers. **Conclusions:** Most of the natural extracts described in this review presented a positive clinical and histological effect on the cicatrisation of oral ulcers induced in animal models. © 2021. Medicina Oral S. L. C.I.F. All Rights Reserved.

Author keywords

extracts; herbs; medicine; oral ulcer; plants; Recurrent aphthous stomatitis; treatment