

Role of Topical Antioxidants and Chewing Containing Antioxidants in Early Stages of OSMF

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Abstract

Oral submucous fibrosis is a chronic progressive disease of oral cavity and oropharynx, a premalignant condition, characterised by juxta epithelial inflammatory reaction followed by fibrosis which leads to burning sensation in mouth, trismus, blanching of mucosa and other symptoms. Factors like chewing betel quid and deficiency of antioxidants like vitamin A, E, lycopene etc. causes oxidative damage by formation of ROS (free radicals).

An interdisciplinary approach towards use of topical antioxidants and chewing containing antioxidants may improve patient outcomes. Topical antioxidants offer targeted localised delivery and alleviate burning sensation. Antioxidant gums provide sustained release of therapeutic agents, prolonged mucosal contact, improved salivary stimulation and enhanced patient compliance.

This review highlights therapeutic potential, mechanism of action and clinical relevance of bioactive substances like lycopene, curcumin, Vitamin A, E and other antioxidants.

Their integration into conventional management may help in improving symptoms with a non invasive therapy, however further well designed randomised control trials are essential to establish standardised formulations, dosage and long term efficacy.

Keywords

OSMF, early stage, oxidative stress, antioxidant gums, lycopene, curcumin, burning sensation, Pre malignant condition.