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A Review on Formulation and Evaluation of Polyherbal Mouth Dissolving Film for Mouth Ulcer

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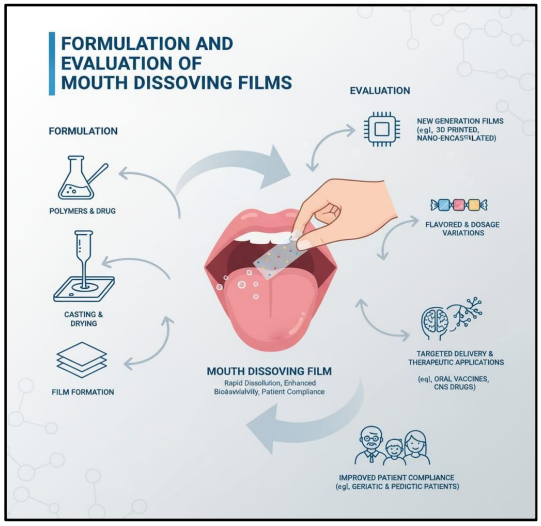
Abstract: *Mouth ulcers are one of the most prevalent oral mucosal disorders, often associated with pain, discomfort, and difficulty in eating or speaking. Conventional dosage forms for treating oral ulcers have limitations such as poor patient compliance, low bioavailability, and short residence time at the site of action. In recent years, herbal mouth dissolving films (MDFs) have emerged as an innovative and patient-friendly drug delivery system. These thin, flexible, and fast-disintegrating films dissolve rapidly in the oral cavity without the need for water, thereby ensuring faster onset of action and improved therapeutic efficacy[1,2]. Herbal extracts such as Ocimum sanctum, Glycyrrhiza glabra, and Punica granatum have demonstrated significant anti-inflammatory, antimicrobial, and wound-healing properties, making them promising candidates for ulcer management [4,3,5]. This review highlights the formulation strategies, polymers, plasticizers, and superdisintegrants commonly employed in the preparation of herbal MDFs using techniques such as solvent casting. Additionally, it discusses the evaluation parameters including thickness, folding endurance, disintegration time, surface pH, drug release, and stability. Advantages such as avoidance of first-pass metabolism, enhanced bioavailability, and improved patient compliance are critically analyzed along with challenges and future prospects[6,8]. Overall, herbal mouth dissolving films offer a novel and effective therapeutic approach for the treatment of mouth ulcers and hold potential for wider clinical application in oral drug delivery.*

Graphical Abstract:



Keywords: Orodispersible film, Mouth ulcer, Aphthous stomatitis, Buccal film, Solvent casting, Mucoadhesion

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