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A Review Article on Buccal Patch

Harsha O. Indoriya, Dr. Amit R. Jaiswal, Vaibhavi A. Kalambe, Sawpnil G. Yeul
P R Pote College of Pharmacy, Amravati
Indoriyaharsha5@gmail.com

Abstract: Buccal drug delivery has emerged as an effective alternative route for systemic and local administration of therapeutic agents. The buccal mucosa offers a highly vascularized, easily accessible, and relatively permeable surface that enables rapid drug absorption while bypassing hepatic first-pass metabolism. Buccal patches—thin, flexible, mucoadhesive dosage forms—provide controlled and sustained drug release with improved patient compliance and minimal gastrointestinal irritation. This review provides a comprehensive overview of buccal patches, including oral mucosa anatomy, mechanisms of buccal absorption, classification, formulation components, advantages, evaluation parameters, and types of natural and synthetic mucoadhesive polymers used. Various manufacturing methods such as solvent casting, direct milling, and hot-melt extrusion are discussed along with examples of drugs delivered via the buccal route. The review highlights the potential of buccal patches as a promising drug delivery system for enhancing bioavailability and therapeutic efficacy of numerous drugs

Keywords: Buccal patch, buccal drug delivery, mucoadhesion, transmucosal delivery, mucoadhesive polymers, oral mucosa, solvent casting, hot-melt extrusion, sustained release, bioavailability, drug permeation, buccal absorption

