

DEVELOPMENT AND CHARACTERIZATION OF POLYHERBAL CHOCOLATE FOR GASTRO PROTECTIVE ACTIVITY

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ABSTRACT

Heartburn and gastric irritation are common gastrointestinal problems that significantly affect the quality of life. These conditions are often associated with excessive gastric acid secretion, irregular dietary habits, and stress. Herbal medicines rich in bioactive phytoconstituents such as flavonoids, phenolic, tannins, and saponins have been reported to possess gastro protective and anti-ulcer properties. The present study aims to develop a polyherbal chocolate formulation intended for gastro protective activity and management of heartburn. In this Nutraceutical project work, selected medicinal herbs such as *Citrus maxima*, *Zingiber officinale*, *Glycyrrhiza glabra*, and *Embllica officinalis* will be incorporated into a chocolate base due to their reported antioxidant, anti-inflammatory, and gastric mucosal protective properties. The herbal chocolate will be prepared using suitable ingredients including cocoa butter, cocoa powder, milk powder, and sweetening agents to improve palatability and consumer acceptance. The prepared herbal chocolate will be evaluated for physicochemical and sensory parameters including appearance, texture, hardness, weight variation, melting characteristics, and overall acceptability. The incorporation of herbal extracts into a chocolate dosage form is expected to enhance patient compliance while delivering potential gastro protective benefits. The study demonstrates the feasibility of developing a novel polyherbal chocolate formulation that combines therapeutic value with improved palatability, suggesting its potential use as a functional nutraceutical for digestive support and management of heartburn.

Key words: Gastro protective activity, Nutraceuticals, Polyherbal Formulations, Phytoconstituents, Patient compliance.