

Formulation and Evaluation of Herbal Hand Sanitizer using Lemon, Tulsi and Aloe Vera

Kartik Dongarkar, Mangesh Kolnure, Raj Tayade

Vivek Rathod, Ankosh Wanole

Satyajeet College of Pharmacy, Mehkar, Buldhana. Maharashtra

Corresponding Authors : Kartik Ashok Dongarkar

kartikdongarkar1@gmail.com

Abstract: *Hand hygiene plays a crucial role in preventing the spread of infectious diseases. Although alcoholbased hand sanitizers are widely used, their frequent application may cause skin irritation, dryness, and dermatitis. Herbal hand sanitizers provide a safer and skin-friendly alternative due to the presence of natural antimicrobial and moisturizing agents.*

The present study aims to formulate and evaluate a herbal hand sanitizer containing Lemon (Citrus limon), Tulsi (Ocimum sanctum), and Aloe vera (Aloe barbadensis Miller). These medicinal plants are known for their antimicrobial, antioxidant, anti-inflammatory, and skin-protective properties. The formulation was prepared using Carbopol 940 as a gelling agent and evaluated for physicochemical parameters such as pH, viscosity, spreadability, antimicrobial activity, stability, and skin irritation.

The results showed that the formulated herbal hand sanitizer exhibited good antimicrobial activity, acceptable physicochemical characteristics, and excellent skin compatibility, indicating its potential as a natural alternative to synthetic hand sanitizers.

Keywords: Herbal hand sanitizer, Lemon, Tulsi, Aloe vera, Antimicrobial activity, Natural formulation

