

# Formulation and Evaluation of Herbal Suppositories for the Antifungal Treatment

Dr. Abhishek Kumar Sen<sup>1</sup>, Krutika Gotarane<sup>2</sup>, Jagruti Jadhav<sup>3</sup>, Sujal Jadhav<sup>4</sup>,  
Pranit Jadhav<sup>5</sup>, Darshan Gurude<sup>6</sup>, Dr. Sonali V Uppalwar<sup>7</sup>

Ideal Institute of Pharmacy, Posheri, Wada, Palghar

**Abstract:** *Background: Conventional antifungal therapies often face limitations such as resistance, adverse side effects, and narrow therapeutic range. Herbal remedies like neem (Azadirachta indica) and turmeric (Curcuma longa) offer safer, natural alternatives with proven antifungal, anti-inflammatory, and healing properties. This study aims to explore the potential of these herbs in suppository formulations for fungal infection treatment.*

*Method: Suppositories were prepared using neem extract and curcumin as active ingredients, with cocoa butter and PEG as bases. Gelatin, glycerin, and purified water were added to enhance consistency and bioavailability. The formulations were evaluated for weight uniformity, melting point, hardness, and disintegration. Antifungal activity was tested in vitro against Candida albicans.*

*Results: All suppositories met standard pharmaceutical criteria, displaying acceptable physical characteristics. In antifungal tests, all formulations showed significant activity against Candida albicans. PEG-based suppositories exhibited slightly better results, likely due to improved solubility and drug release.*

*Conclusion: Neem and curcumin-based suppositories, enhanced with gelatin, glycerin, and purified water, are effective and safe for treating fungal infections. Their strong antifungal activity and good physical stability make them suitable for rectal or vaginal use. These findings support the development of herbal alternatives to conventional antifungal treatments.*

**Keywords:** Herbal suppositories, Antifungal, Gelatin, Glycerin, Neem, Purifiedwater, Curcumin, Natural remedies

