

Formulation and evaluation of pediatric anthelmintic lollipop

Shyam J Patel, Mahima D Lalani, Vishw S Patel, Jay K Patel and Nihar A Patel

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Abstract

Ascariasis, a prevalent soil-transmitted helminth infection caused by *Ascaris lumbricoides*, continues to pose a significant health threat to the pediatric population in developing countries, leading to malnutrition, physical growth retardation, and impaired cognitive development. While synthetic anthelmintics like benzimidazoles are standard treatments, issues such as emerging drug resistance and poor pediatric compliance due to palatability remain major hurdles. This review paper examines the formulation of an innovative, patient-friendly dosage form—an anthelmintic lollipop—incorporating potent natural extracts from Vidanga (*Embelia ribes*), Neem (*Azadirachta indica*), and Tulsi (*Ocimum sanctum*). Traditionally utilized for their "Krimighna" (worm-destroying) properties, these herbs contain bioactive secondary metabolites like embelin that effectively target intestinal parasites. This document details the anatomy and pathophysiology of *Ascaris*, provides a comprehensive pharmacognostic and phytochemical profile of the active ingredients, describes extraction methodologies, and discusses the synergistic mechanism of action of this plant-based pediatric therapy.

Keywords: Anthelmintic Lollipop, Pediatric Compliance, *Ascaris lumbricoides*, Herbal Extracts, Embelin, Formulation and Evaluation