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Optimized formulation, preformulary characterization and evaluation of diethylcarbamazine citrate - Medicated chewing gum

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Truncate infections caused by Helminthes, or parasitic worms, affect more than two billion people worldwide. Looking at this situation, an attempt has been made to formulate a novel drug delivery system known as medicated chewing gum containing masticatory gum base with pharmacologically active ingredient Diethylcarbamazine citrate (used as a first-line agent for control and treatment of Lymphatic filariasis and for therapy of tropical pulmonary eosinophilia caused by *Wuchereria bancrofti* and *Brugia malayi*). Optimized formulations of medicated chewing gum with varying concentration of gum base were formulated. Evaluation parameter like texture analysis (hardness, firmness and springiness test) is carried out by texture analyzer apparatus (TAXT plus). Improved essentials of casting & *in-vitro* release profile of drug in saliva was obtained by formulation Fc3 (96.2%). Buccal absorption studies showed that 39.2% of drug absorbed within one minute when available to buccal mucosa at pH 5.5, commensurate with explain diethylcarbamazine citrate- medicated chewing gum (DEC-MCG) can be considered as better formulation for buccal drug delivery system in which drug is absorbed buccally and reaches the systemic circulation via jugular vein.

Biography

Swati Khare has completed her Master's in Pharmacy (MPharma) in Pharmaceutics (Honors) from College of Pharmacy, IPS Academy, Indore (M.P.) in 2012. Currently she is working with IIST College Indore as Assistant Professor. Earlier she had worked with Cyano Pharma Pvt. Ltd. Indore as Q.A. Officer. She has presented poster on "Innovative pharmacy & Pharmaceutical Science" in Bhopal and paper presentation during Technopharma event held in S.I.R.T. Bhopal in April 2012.

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