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Formulation, Development and Evaluation of Controlled Release Film Forming Gel for Antiseptic Activity.

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ABSTRACT

The suitability of drug with respect to lower dose, solubility, lower molecular weight and short half-life makes this drug as a suitable candidate for administration by transdermal route. The effectiveness of topical therapy depends on the physicochemical properties of the drug and adherence of the patient to the treatment regimen as well as the system's ability to adhere to skin during the therapy so as to promote drug penetration through the skin barrier. Conventional formulations for topical and dermatological administration of drugs have certain limitations like poor adherence to skin, poor permeability and compromised patient compliance. In the present study povidone-iodine transdermal films were prepared by various methods using polymer Eudragit L-100. The prepared transdermal films were evaluated for Appearance, thickness, folding endurance, weight variation, flatness, moisture absorption, moisture loss, moisture content, Folding endurance, water vapor transmission, and in vitro drug diffusion study. Drug polymer interactions were determined by FTIR. The transdermal films prepared by using Eudragit L 100 showed good physical properties. The formulation batch (F5) containing Eudragit L 100 showed maximum Antiseptic activity byfilm which was prepared by spray method & solvent casting method.

Keywords: Film forming polymers; Topical drug delivery; Antiseptic activity; povidone-iodine.

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11(3)

Page No. 190