Patent Search

Invention Title	LIPOSOMAL GEL FORMULATION COMPRISING 5-FLUOROURACIL AND EUCALYPTUS OIL FOR THE TREATMENT MELANOMA AND METHOD OF PREPARATION THEREOF
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Abstract:

The present invention relates to a liposomal gel formulation comprising 5-fluorouracil and eucalyptus oil for the treatment of melanoma skin cancer with no or minimal ac effects such as skin irritation, pruritus, redness, blisters, allergy, and dryness on the site of application, and method of preparation thereof. The formulation comprises pharmaceutically acceptable carriers, excipients, stabilizers, binders, and additives in a pharmaceutically acceptable level and characterized in comprising 5-fluorouracil an eucalyptus oil. The formulation comprises 5-fluorouracil and eucalyptus oil in the ratio of 0.5%w/v and 5%/w/v respectively. The formulation of the present invention impr permeation of drug and increases anticancer efficacy of 5-fluorouracil by using the liposomal gel as compared to the drug release against simple gel preparation and topic marketed formulation of same drug.

Complete Specification

The present invention relates to liposomal gel formulation for the treatment of melanoma and a method of preparing the same and specifically, the present invention relates to liposomal gel formulation comprising 5-Fluorouracil and eucalyptus oil for the treatment of melanoma and method of preparation thereof.

BACKGROUND/PRIOR ART OF THE PRESENT INVENTION

It is well established that Actinic keratosis is one of the most common conditions that arise on the part of the skin exposed to the sun. It is considered to be an early squamous cell carcinoma and further progresses to invasive squamous cell carcinoma. It is important to treat actinic keratosis and early squamous cell carcinoma with a treatment called field-detected 5-fluorouracil. Currently available commercial 5-fluorouracil pharmaceutical preparations are recorded to cause soreness, itching, discoloration, irritation, burning, and rash on the applied part of the skin. There is a need for a pharmaceutical formulation that will control the rate of release of drug an enhance penetration stays longer at the site of application for better treatment.

In view of this, there is an unmet need to develop a 5-fluorouracil formulation with improved efficacy with the lowest possible dose through better skin permeation, safe skin hydration, and retention on the skin so that it can have a longer duration of action to improve patient compliance.

The review of literature has revealed the following relevant literature:

An extensive literature review shows that there are several efforts are in place to develop a suitable formulation of 5-fluorouracil to make it safer and convenient for pati use

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