

Formulation and evaluation of herbal vanishing cream of Neem extract

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ABSTRACT

The purpose of the present research work was to formulate and evaluate vanishing herbal cream. Herbal creams offer several advantages over other creams. The majority of existing creams which has prepared from drugs of synthetic origin and give extras fairness to face, but it has several side effects such as itching or several allergic reactions. Herbal creams do not have any of these side effects, without side effects it gives the fairness look to skin. Method carried out to prepare herbal cream was very simple. Extract include Peppermint leaves, Neem leaves, Orange peel, Ginger, Mustard, Turmeric, Almond Seed and Gram flour. Firstly, oil phase was prepared, the mixture of stearic acid (17%), potassium hydroxide (0.5%), sodium carbonate (0.5%) were melted at 70°C. Secondly aqueous phase was prepared, mixture of alcoholic extract of crude drugs, including Glycerin (6%), perfume (0.5%), water (71%) heated at 70°C. Then aqueous phase was added into the oil phase at 70°C with continuous stirring. Now, once the transfer was completed it was allowed to come at room temperature all the while being stirred. Perfume was added at last just before the finished product was transferred to suitable container. The above prepared herbal cream was evaluated. The physical parameters such as pH, homogeneity by visual and by touch, appearance (color), rubout (spread ability, wetness), washability, consistency, Patch test, irritancy test accelerated stability studies, type of smear, emolliency were determined. Further studies are needed to investigate this formulation for its performance

KEYWORDS

Fairness cream, Herbal vanishing, Face Cream, Steroidal dermatitis, Skin nutrition, safety adverse effect, Quality, prices

visible in the skin. Although, ageing skin is not a threat to a person, it can have a detrimental effect on the psychology of a person. Much of the premature ageing occurs as a direct or indirect result of skin's interaction with the environment. Exposure to sunlight is a recognized as a major factor in the etiology of the progressive unwanted changes in the skin appearance. Photochemoprotective agents are capable of preventing the adverse effects of ultraviolet radiation on the skin, which are caused by excessive generation of reactive oxygen species.

The skin is the body's first line of defense for external exposure. The signs of ageing are most visible in the skin. Although, ageing skin is not a threat to a person, it can have a detrimental effect on the psychology of a person. Much of the premature ageing occurs as a direct or indirect result of skin's interaction with the environment. Exposure to sunlight is a recognized as a major factor in the etiology of the progressive unwanted changes in the skin appearance. Photochemoprotective agents are capable of preventing the adverse effects of ultraviolet radiation on the skin, which are caused by excessive generation of reactive oxygen species.

This herbal vanishing herbal cream consists of various crude drugs including Peppermint leaves (*Mentha piperita* family Lamiaceae), Neem leaves (*Azadirachta indica* A.Juss. family Meliaceae), Orange peel (*Citrus limon* (L.) Osbeck. family Rutaceae), Ginger (*Zingiber officinale* family Zingiberaceae), Mustard (*Brassica juncea* family Brassicaceae), Turmeric (*Curcuma longa* family Zingiberaceae), Almond Seed (*Prunus dulcis* (Mill.) D. A. Webb. Family Rosaceae), Gram flour (*Cicer arietinum* L. family Fabaceae).

I. INTRODUCTION

The skin is the body's first line of defense for external exposure. The signs of ageing are most

OBJECTIVE

The objective of this research work was to formulate the cream which does not cause any side effects or adverse reactions. The cream also acts as a fairness expert in day to day life by removing aging signs. It also possesses nutritional value

which provided required nutrients to the skin.

II. MATERIALS AND METHODS

Materials: All crude drugs were collected from Rungta institute of pharmaceutical sciences College of pharmacy Campus, Bhilai

Table No. 1: Herbal Drug Information

Sr.No.	Herbal Extracts	Medicinal important	Picture
1.	Neem leaves Azadirachta indica A.Juss., Meliaceae	Neem leaves used to treat skin diseases like Antibacterial, antifungal,	
2.	Turmeric (Curcuma longa family Zingiberaceae)	Prevents and heal dry skin, treat skin conditions such as eczema and acne, and retard the aging process.	
3.	Ginger Rhizome powder Zingiber officinale Zingiberaceae	It contains around 40 antioxidant properties that prevent free radical damage and protect against aging. It also evens skin tone and improves elasticity	
4.	Honey Apis mellifica Apidae	Honey is the saccharine liquid prepared from the nectar of the flowers by the body to facial masks, creams and lotions.	
5.	Almond Seed Prunus dulcis (Mill.) D. A. Webb. Rosaceae	It also evens skin tone and improves elasticity	

Neem leaves were collected from local areas of Bhiali. Extraction was done by using soxhlet apparatus and ethanol is used as a solvent for extraction process.



Figure No.1: Neem leaves

PREPARATION OF HERBAL NEEM EXTRACT:

Before the extraction the seeds get well cleaned

manually all the leaves & dirt to be removed with blower air and heating of the seeds starts with hot air the temperature of the seeds.



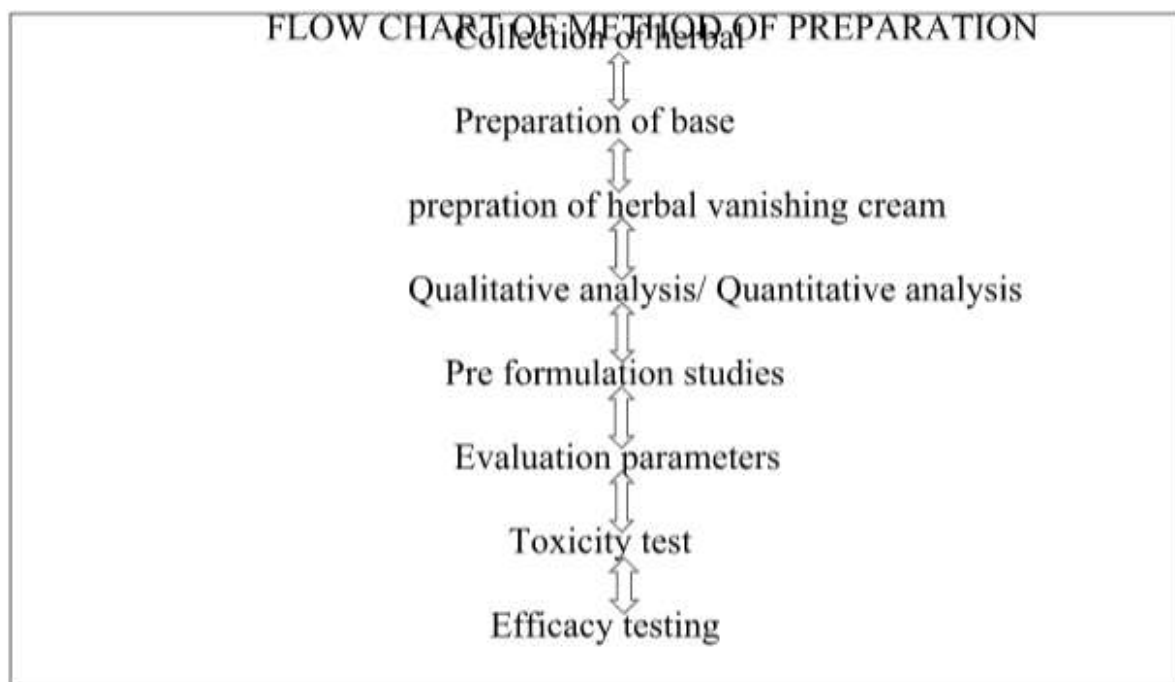
Figure No.2:-Filtration of Neem

raises up to 55-60 °C so that the all the moisture can be removed. After the completion of the seed preparation steps, extraction of oil from grinded neem seeds carries. Extraction involved the use of soxhlet extractor (coupled with heating mantle) and extraction solvents. The solvent used in the extraction process is ethanol.

METHOD OF PREPARATION

Steps carried out in the preparation of vanishing herbal cream were as follows.

FLOW CHART OF METHOD OF PREPARATION



Preparation of herbal Vanishing Cream:

All above mentioned powdered Crude drugs of 5gms weretaken into the conical flask and then 100ml. of ethanol was added to it, then the conical flask was capped withaluminum foil. Then this mixture was placed for macerationfor 5 days.

Preparation Of Oil Phase:

Stearic acid (17%), potassium hydroxide (0.5%), sodium carbonate (0.5%) was taken into one porcelain dish and this mixture was melted at 70Oc.

Preparation Of Aqueous Phase:

Alcoholic extract of crude drugs mentioned in step-1 (4.5%), Glycerin (6%), Water (71%) were taken into another porcelain dish and heated this mixture at 70Oc.

Addition Of Aqueous Phase To Oil Phase:

The aqueous phase was added to the oilphase with continuous stirring at 70Oc. Now, once the transfer was completed it was allowed to come at room temperature, all the while being stirred. Perfume (0.5%) was added at last just before the finished product was transferred to suitable container. Then cream was evaluated for various physical parameters.

Table 2:Composition Of Herbal Vanishing Cream.

Sr. No.	Ingredient	Quantity (%)
1.	herbal extract	4.5
2.	Stearic acid	17
3.	Potassium hydroxide	0.5
4.	Sodium carbonate	0.5
5.	Glycerin	6
6.	Perfume	0.5
7.	Water	71

EVALUATION OF CREAMS

pH: Accurately weighed 5 g of the sample was dispersed in 45 ml. of water. The pH of the suspension was determined at 27°C using digital pH meter.



Figure No.3: PH meter

Spreadability Test :

500mg of the cream was sandwiched between 2 slides. A weight of 100gm was placed on upper slide. The weight was removed and extra formulation was scrapped off. The lower slide was fixed on board of apparatus and upper slide was fixed with non flexible string on which 20g load was applied. Time taken by upper slide to slip off was noted down

Dye Test :

The test was done by mixing the cream with red dye then place the drop of cream was placed on a slide and covered with cover slip, observed under microscope. If the dispersion phase appears in red colored globules the cream was O/W type. If the continuous phase appears red color the cream was w/o type

Homogeneity :

The test was done by physical touch with hands.

Patch Test :

About 1-3gm of material to be tested was placed on a piece of fabric or funnel and applied to the sensitive part of the skin e.g. skin behind ears. The cosmetic to be tested was applied to an area of 1sq.m. of the skin. Control patches (of similar cosmetic of known brand) were also applied. The site of patch is inspected after 24 hrs. As there was no reaction the test was repeated three times. As no reaction was observed on third application, the person may be taken as not hypersensitive

Appearance :

The appearance of the cream was found by observing its color, opacity, etc.

After Feel :

After applying the herbal cream on skin the properties like emollient nature, slipperiness and the amount of cream left after applying to the skin was checked.

Smear Type :

The test was conducted after the application of cream on the skin the smear formed was oily or aqueous in nature.

Removal :

The removal of the cream applied on skin was done by washing under tap water with minimal force to remove the cream.

Irritancy Test :

The cream was applied on left hand dorsal side surface of 1sq.cm and observed in equal intervals upto 24hrs for irritancy, redness and edema.

Accelerated Stability Studies :

Accelerated stability studies were performed on all the formulations by maintaining at room temperature for 20 days with constant time interval. During the stability studies the parameters like homogeneity, viscosity, physical changes, pH and type of smear were studied.

III. RESULTS AND DISCUSSIONS :

The herbal vanishing cream was prepared by using o/w emulsion method using mixture of herbal neem extract of crude drugs including Peppermint leaves, Neem leaves, Ginger, Turmeric, Almond Seed. The extract were used and formulated and pass all evaluation test and all result were mention in tables.3

Table No. 3: Evaluation Parameter

Sr.No.	Parameter	Observation
1.	Cooler and Oder	Yellowish and slightly aromatic
2.	PH	6.8
3.	Spreadability	13.7
4.	Consistency	Good
5.	Washability	Washable
6.	Grittiness	No gritty particlesFound
7.	Dye Test	O/W typ
8.	Homogeneity	Homogeneous Smooth and Consistent
9.	Irritancy test	No redness and edema
10.	Patch Test	Not hypersensitive
11.	stability studies	Stable
12.	Type of Smear	Non-greasy



Figure No.4 :Formulation

IV. CONCLUSION

The vanishing cream of crude drugs with the best properties and having nutritional value was to be prepared by simple methods and less equipment are required. The prepared herbal cream also has antioxidant and antibacterial activity due to this it retards aging signs and pimple formation on the face. The uses of cosmetics have been increased in the personal care system, and the bioactive ingredients in it influence the biological functions of skins. The natural herbs used in the preparation of polyherbal vanishing cream was previously reported to have anti-fungal, antimicrobial, anti-inflammatory, skin-soothing activities for which it retards aging signs and pimple formation reduces wrinkles and protects from sunlight.

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