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Research Article

Preparation and evaluation of polyherbal facial scrub

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ABSTRACT

The main objective of present study was to prepare a polyherbal scrub incorporated into gel. The use of natural ingredients to fight against acne, wrinkle and also to control secretion of oil is known as natural or herbal cosmetics. Herbal cosmeceuticals usually contain the plant parts which possess antimicrobial, antioxidant and anti aging properties. Herbal cosmetics are the safest product to use routine with no side effects and cosmeceuticals are the product which influences the biological function of skin. In this preparation Green apple, cinnamon, Millet, Sandalwood, Neem, Turmeric and honey is used as active ingredients and incorporated into the gel which is prepared with carbopol of different grades. Other ingredients like propylene glycol, Triethanolamine; methyl parahydroxy benzoate was added along with sodium lauryl sulfate into the gel. The prepared gel was evaluated for various parameters such as appearance, pH, viscosity, Spreadability, washability, irritability and found to be satisfied with all required characterizations. Thus, the developed formulation can be used as an effective scrub for using it to bear a healthy and glowing skin.

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INTRODUCTION

Cosmetics are defined as the products used for the purposes of cleansing, beautifying, promoting attractiveness or alternating the appearance¹. From the ancient time, different herbs are used for cleaning, beautifying and to manage them. Face skin is the major part of the body, which indicates the health of an individual^{2, 3}. Cosmetics are available as various forms and each has its own role to play on the skin. Skin becomes dull, non glowing due to various causes and these can effectively be overcome with the application of scrubs. There are two types of scrub being used on the skin such as facial scrub and body scrub. These two differ only with the ratios of oil and sugar added in each. Usage of oil is high in facial scrub due to which it is less abrasive. It removes the dead skin cell and exfoliates the skin. Scrub can be used on any type of skin. Only the essential oil used in scrub as ingredient will vary with the type of skin. Skin is classified into three types such as dry skin, oily skin, sensitive skin⁴. On regular use of scrubs, skin becomes glowing and smoother because dead skin cells are removed thereby exposing new skin cells. Mild abrasive agent is one of the key ingredients in facial scrub formulation. Scrubs can be directly applied on to the skin or can be applied with small cosmetic pad. Gentle

message is recommended on application of the scrub gel which helps to improve blood circulation and increases oxygen supply to all surface of the skin⁵.

MATERIALS AND METHODS

Preparation of extract

The extract was prepared by cold maceration process⁶. Green apple, Cinnamon, Millet, Sandalwood, Neem, Turmeric were ground and kept with water for 72hrs. This was dried and stored in desiccator further use.

Preparation of gel

Methyl paraben was weighed and dissolved in a beaker containing water. To this carbopol was added and stirred continuously for few minutes until it forms a gel. Sodium lauryl sulfate was weighed, dissolved separately with water and was added into the above gel. Followed by this propylene glycol was added. Drop wise triethanolamine added into gel to neutralise the pH. The active ingredient mixture was then added into the prepared gel and stirred^{7, 8}.

Formulation of Polyherbal Scrub

Table 1: Formulation of Polyherbal Scrub

Sr.No.	Common Name	Category	Quantity (%)
1	Green apple	Anti aging, anti oxidant	2
2	Cinnamon	Antibacterial	2
3	Millet	Improves complexion	3
4	Honey	Antiseptic, Antioxidant	4
5	Sandalwood	Smoothing, cooling effect and improves fairness	1
6	Neem	skin conditioner, antiseptic.	0.5
7	Turmeric	Antiseptic and improves Fairness	0.5
8	Carbopol	Gelling agent	2
9	Methyl Paraben	Preservative	0.1
10	Triethanolamine	Neutraliser	2
11	Propylene Glycol	Moisturiser	2
12	Sodium Lauryl Sulfate	Foaming agent	4
13	Distilled water	Vehicle	Q.S.

Evaluation Parameters

The prepared gel was evaluated for appearance, pH, consistency, Spreadability, extrudability, viscosity, irritability, washability, grittiness, foamability^{9,10,11,12,13}.

RESULTS AND DISCUSSION

Appearance

The prepared scrub gel was evaluated for its odour and colour. The colour was found to be brown in colour and odour was found to be characteristic.

pH

pH of the prepared gel was evaluated. Small amount of the gel was applied on the pH paper and found to be 7.0

Consistency

It was found to be semi solid with visual observation.

Spreadability

Small amount of the gel was placed on the glass slide and another glass slide was placed on the gel. A wooden weight was placed on it. The time required for the gel to spread and the area was measured. The amount and the area of gel on the glass slide represents the efficiency of spreadability.

Extrudability

Small amount of gel was taken into a collapsible ointment tube. One end closed and the other end kept opened. Slight pressure was applied on the closed side. The time taken to extrude and the amount of gel extruded was noted.

Viscosity

Brookfield viscometer was used to measure the viscosity of gel.

Irritability

Small amount of the gel was applied on the skin and kept for few minutes and found to be non irritant.

Washability

Little quantity of gel was applied over the skin and was washed with water. It was easily washable.

Grittiness

Gel was found to have a few gritty particles.

Foamability

Small amount of gel was shaken with water in a graduated measuring cylinder and the foam was measured.

Table 2: Evaluation of polyherbal facial scrub.

SR.NO.	PARAMETERS	OBSERVATION
1	colour	Brown
2	Odour	Characteristic
3	Consistency	Good
4	pH	7.0
5	Viscosity	1.4580 poise
6	Spreadability	6.72g.cm/sec
7	Washability	Easily washable
8	Grittiness	Small gritty particles
9	Foam ability	Foam volume 100ml at 5 minutes
10	Irritability	Non irritant
11	Extrudability	Easily extruded

CONCLUSION

The present study was attempted to prepare a polyherbal scrub. The prepared scrub gel was evaluated using various parameters and was found to be satisfied for the application on the skin to make it healthy and glowing without any side effects. The prepared scrub is planned to carry out with *in vivo* studies for its irritancy.

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