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Development and Evaluation of Polyherbal Scrub for Soft Skin



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ABSTRACT

Most of the cosmetics which are non-herbal cause any skin disorders after prolonged use, like acne, pimples, itchiness, etc., due to which there is an increasing demand for herbal products. These cosmetic products have negligible side effects and show effective results. Herbal cosmetics are the use of the traditional product with a natural origin that are formulated into a modern way of cosmetology. In this project, we have attempted to formulate polyherbal facial scrub which includes different herbal extracts and powders, and the same was evaluated for various physical parameters and it showed satisfactory results with respect to the objective with which it was formulated i.e. smooth skin and other factors.



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INTRODUCTION

Cosmetics are products that serve the purpose of cleansing, altering of appearance of human skin. The demand for cosmetics has been increasing day by day not only by women but also by men as they are equivalently concerned about skincare routines. ⁽¹⁾ The demand for herbal cosmetics has been showing steady growth. There are various herbal products that are preferred by people which serve the purpose of beautification. ⁽²⁾ Herbal cosmetics make the use of herbal products which give cosmetic benefits. Though it might not show instant cure or effect but is still preferred because of skin-friendliness and shows fewer side effects. ⁽³⁾ These products are considered as a healthy skincare routine because the herbal products used in the formulations are less toxic. ⁽⁴⁾

Cosmetics are available in various types which have their benefits. Whenever skin shows signs of dullness, dead skin cells, etc. it can be overcome with the use of a scrub. There are mainly two different types of scrub: 1. Facial scrub 2. Body scrub both has their advantages.

Facial scrub helps in the exfoliation of the skin and can be used in all types of skin depending on the essential oil used in them. ⁽⁵⁾ Regular use of scrub can lead to the removal of dullness, blackheads, and results in overall smooth skin. The application of scrub can be done directly on the skin or by using a cosmetic pad. A gentle massage is required which enhances the blood circulation and oxygen supply on the skin surface. ⁽⁶⁾

MATERIALS AND METHODS

1. Orange peel powder

Fresh oranges were collected and washed properly using tap water. The peel was separated from the pulp and then it was dried for 3-4 days. Further, it was grinded and passed through sieve 60. ⁽⁷⁾

2. Apricot seed powder

Seeds of apricot were finely grinded and used in the scrub for moisturizing effect and exfoliating properties. ⁽⁸⁾

3. Aloe vera gel

The aloe vera leaf was cut about 40-60cm and further, it was washed with distilled water and 0.5% chlorine. The margins and spikes were sliced before slicing the filets. After slicing it

was separated from parenchyma and further the filets were washed with distilled water to remove impurities. It was kept for lyophilization at -180°C. ⁽⁹⁾

4. Hibiscus powder

The flower was collected. The petals were separated from the stalk and stigma. Further, the petals were washed, dried, and homogenized. It was passed through sieve no. 60 and stored in an air-tight container. ⁽¹⁰⁾

5. All the remaining ingredients like tea powder, honey, turmeric, and rose water were collected from the local market.

Formulation of Polyherbal Facial Scrub

Table No. 1: Formulation of polyherbal facial scrub

Sr. No.	Ingredients	Quantity	Characteristics
1.	Orange peel powder	2.5gm	Exfoliator
2.	Apricot seed powder	2.5gm	Moisturizing effect
3.	Tea powder	2gm	Unclog pores
4.	Honey	1ml	Natural antioxidant
5.	Turmeric	0.5gm	Anti-inflammatory properties
6.	Hibiscus powder	2gm	Exfoliating properties Hydrating properties
7.	Aloe vera gel	1gm	Hydrating properties
8.	Rosewater	2ml	Smoothing effect

Preparation of Polyherbal Facial Scrub:

1. All the dry materials like orange peel powder, tea powder, apricot seed powder, and turmeric powder were mixed.
2. All the semi-solid ingredients were taken in a mortar and molded into a single phase.
3. Further, all the solid or dry ingredients were added to the mortar and mixed properly.
4. Rosewater was added for fragrance and soothing purposes.



Figure No. 1: Polyherbal scrub



Figure No. 2: Before application of Polyherbal scrub



Figure No. 3: After application of Polyherbal scrub

Evaluation Parameters

The prepared scrub was evaluated for appearance, pH, consistency, extrudability, irritability, washability, grittiness.⁽¹¹⁾⁽¹²⁾⁽¹³⁾⁽¹⁴⁾

Appearance

The scrub which was prepared went through evaluation for its color and odor. The color of the scrub is brownish yellow and the odor is characteristic.

pH

the pH of the scrub was evaluated by taking a small part of it on pH paper and it was found to be 7.0.

Consistency

It was found to be consistent through visual observation.

Extrudability

A small amount of the scrub was taken into an ointment tube with one end closed and the other opened and pressure was applied to the closed side. The time taken by the scrub to extrude was considered.

Irritability

A small amount of scrub was applied on the skin and was kept for some time and it was found to be non-irritant.

Washability

Some quantity of scrub was applied on the skin and after some time was washed. It was found to be easily washable.

Grittiness

The scrub was found with tiny gritty particles.

RESULT




Table No. 2: Evaluation parameters of polyherbal facial scrub

Sr. No.	Parameters	Observations
1.	Color	Brownish-yellow
2.	Odor	Characteristics
3.	Consistency	Good
4.	Extrudability	Easily Extruded
5.	Irritability	Nonirritant
6.	Washability	Easily washable
7.	Grittiness	Tiny gritty particles
8.	pH	7.0
9.	Skin Sensitivity	No rashes were seen on the application.

RESULTS AND DISCUSSION

In this study, a polyherbal scrub was formulated using various herbal products. It was evaluated by using various physical parameters and it showed satisfying results with respect to physical appearance. The consistency was good and it was extruded easily. On application, it was a nonirritant and can be washed out easily using water or wet paper towels. It showed many tiny gritty particles due to the presence of orange peel powder and apricot seed powder. The texture of the formulation remained the same throughout and no rashes were found after application.

Table No. 3: Stability studies: On the day of preparation, after 30 days and after 90 days

Stability studies	On the day of preparation	30 days after preparation	90 days after preparation
Appearance			
Consistency	Good	Good	Good
Skin Sensitivity	No rashes were seen on application	No rashes were seen on application	No rashes were seen on application
pH	7.0	7.0	7.0
Color	Brownish yellow	Negligible color change	Negligible color change

Stability studies:

The scrub was kept in a container for 90 days and observations were made in regular time intervals. The scrub was found to be quite stable and there was no sign of any phase separation except the very minimal change in color. ⁽¹⁵⁾ The scrub is further kept under observation for stability studies.

CONCLUSION

The study was attempted to prepare a polyherbal scrub. The prepared formulation was evaluated using various physical parameters and on application, it showed satisfactory results

like removal of dead skin cells, and it led to the smoothness of skin without any side effects. It can be considered a healthy skincare routine.

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