



THE EFFECT OF HERBS TO FORMULATE THE FACIAL SCRUB FOR REJUVENATING OUR SKIN

Devshree Gayakwad*, Shraddha Mahajan, Abhilasha Tiwari and Dr. G. N. Darwhekar

Acropolis Institute of Pharmaceutical Education and Research, Indore.

*Corresponding Author: Ms. Devshree Gayakwad

Acropolis Institute of Pharmaceutical Education and Research, Indore.

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ABSTRACT

In order to get healthy looking skin, skin must be clean regularly to remove all the dirt, sebum, dead cells, etc. This will protect our skin primarily and help to make it beautiful. For this cleaning, several marketed products are already available that will clean the skin but also having some adverse effects due to its chemical usage. The addition of herbal extracts to these products will give us beautiful nourishment of our skin and overcome the adverse effects caused by the chemicals and overcome the environmental contamination to our skin. Our study tried to overcome this problem by the addition of natural ingredients into the facial scrub. The method incorporated into this study was simple mixing of the natural ingredients like neem, tulsi, aloe vera, almond oil, mixed with the gelling agent carbopol of grade 934. Further additions of preservatives, flavouring agents are incorporated to form a homogeneous mixture. This cream was then formulated and further evaluated as per the investigations like organoleptic properties and other characterizations like spreadability, irritability, extrudability, etc. All these parameters are found satisfactory and tend to reformulate the facial scrub at the boosting level on our skin as compared to the other marketed chemical products. This scrub shows promising challenging effect that imparts a glow and overcome the blemishes, darkness, and acne type problems of skin.

KEYWORDS: Skin, Nourishment, Contamination, Facial Scrub, Blemishes, Acne.

1. INTRODUCTION

Skin plays a vital role in our body that it protects primarily human body as a first barrier of protection. Many of the herbalists, tends to help the people for their good health with the use of natural resources. Now-a-days, these herbs are now considered like to be a food, either to take as medicines as they are obtained by naturally occurring substances and a complete mode of nutrition.^[1] Our body automatically starts to clean and purify itself while taking herbs as including in our diet or by the application to our skin. As compared to the other marketed products which are chemically synthesized may cause many adverse effects and do harm to our body internally and externally both. As these herbs are unable to produce the instant relief and prevents sudden infections, but it can offer our human body to get a proper tuning with the beautiful nature.

Herbal Extracts Facial Scrub: As the name suggests, it is the extracts obtained from the naturally occurring herbs.^[2] According to the ancient Vedas, these herbal extracts are used for curing several diseases and helpful from the other health prospective region. These are prepared by smashing the herbs in the bowl to obtain the juice. Later, these liquefied juices were mixed with other additives to prepare a complete formulation.

Indian Herbal Extracts for Cosmetics: According to the modernization, each and every product we receive from the resources is get infected, damaged, adulterated, etc.^[3] The food we intake, the cosmetics we applied are the main scope of origination for this herbalization. The bad habits and unusual life styles are tends to possess the growth of the herbal era. This will turned upon a movement towards the herbal based life styles that it has the potential to cure several hazardous diseases.^[4,5]

Amla (*Embilica officinalis*): The herbal part of the plant is its fruit which was present on a plant consist of small laminar leaves which grow throughout the India. This fruit is edible in nature and also meant for the external application in the form of its dried extract. This plant and its fruit is highly rich in Vitamin C. The usefulness of this plant is for the treatment of hair problems, skin disorders and many more.^[6]

Neem (*Azadirachata indica*): The whole herbal plant is very useful to treat various health and skin problems like acne, pimples, darkness of skin, hair damage, dandruff, etc. It can grow easily in the different regions of all over India.^[7]

Tulsi (*Ocimum sanctum*): Every Indian knows the holiness of this plant as according to the Indian Tradition. Each and every part of this plant contains a very significant role for all over treatment of the human body problems.^[8]

Aloe Vera (*Aloe barbadensis miller*): The leaves of the plant are useful for its skin treatment like pimples, acne,

dandruffs, skin irritation, glow of skin and many more. It will found very easily in India as it is a plant can grow in very little or no amount of water. It can also cure cancer.^[9]

Marked Herbal Skin Cares of Herbal Cosmetics: The several marketed products present now to overcome most of the skin problems in India as listed follows.

Table No. 01: Marketed Formulations.^[10]

S.No.	Products Name	Brand Name	Company Manufacturer
1.	Massage Gel	Amazine herbal fruit massage gel	Amazine India Marketing Pvt. Ltd.
2.	Face Pack	Amazine Herbal Scars Face Pack	Amazine Herbal Remedies, New Delhi
3.	Facial Gel	Dr. Jain's Forest Cucumber Gel	Dr. Jain's Forest Herbal Pvt. Ltd.
4.	Face Wash	Combi Neem Face Wash	Combii Organochem Pvt. Ltd.
5.	Face Scrub	Aloe Indica Face Scrub	Aloe Indica Pvt. Ltd.
6.	Cream	Vicco Turmeric Cream	Vicco Laboratories India
7.	Cold Cream	Papaya and Strawberry Cream	Gayatri Herbals Pvt. Ltd.
8.	Face Powder	Agrawal Tulsi Face Powder	Agrawal Herbal Products.

2. MATERIAL AND METHODS

The poppy seeds were obtained from the Solomon Agri-Indo Pvt. Ltd. Mandsour, MP; while Tulsi leaves and Neem leaves are obtained from the Institutional garden of Acropolis Institute of Pharmaceutical Education and Research, Indore, MP; and other chemicals are purchased from Licensed Manufacturer of India.

Formulation of Herbal Facial Scrub

Three batches of named F1, F2, and F3 were prepared by verifying the concentrations of ingredients. The herbal facial scrub was formulated by the process named simple extrusion.^[11] It includes the decoction of extrude drugs from their active components from the plant parts used for this purpose. Then other additives are slowly added according to their simple order of mixing from phase A to B and so on.

Table No. 02: Formulation of Herbal Facial Scrub of different concentrations.^[12]

S.No.	Phases	Ingredients	Quantities		
			F1	F2	F3
01.	A	Poppy seeds	5.0 g	5.5 g	6.0 g
		Camphor	0.25 g	0.50 g	0.75 g
		Kaolin	2.5 g	3.0 g	3.5 g
		Glycerin	2.5 g	5.0 g	7.5 g
02.	B	Almond Oil	5.0 g	7.5 g	10.0 g
		Neem Extract	1.0 g	2.0 g	3.0 g
		Tulsi Extract	1.0 g	2.0 g	3.0 g
		Aloe Vera Gel	2.5 g	5.0 g	10.0 g
03.	C	Carbopol 934	1.0 g	2.0 g	3.0 g
04.	D	Methyl paraben	0.050 g	0.070 g	0.100 g
		Propyl Paraben	0.025 g	0.050 g	0.075 g
		Triethanolamine	Qs.	Qs.	Qs.
		Cetyl Alcohol	Qs.	Qs.	Qs.
		Rose Essence	Qs.	Qs.	Qs.
		Demineralised Water	Upto 50.0 g	Upto 50.0 g	Upto 50.0 g

Collection of Plant extracts^[13]

Preparation of Neem Extract: With the help of Soxhelt Extraction Apparatus, the extract of the neem was prepared by the decoction process as to decoct the leaves with water for at least 72 hrs. This extract obtained was then dried, stored in the desiccators for the further use.

Preparation of Tulsi Extract: Same process was being followed to obtain the tulsi extract like the decoction of

tulsi leaves with water for 72 hrs, further it had been dried and stored in desiccators.

Preparation of Aloe Vera Gel: Leaves of aloe vera was collected freshly from the garden and the gel was removed from the leaves manually. By using homogenizer, homogenized the mixture to get a gel like substance properly.

Preparation of Carbopol gel base

Required quantity of Carbopol 934 was weighed and taken into a beaker. Soak it with demineralised water for one hour to make it swell. After this swelling, homogenize it by a high shear homogenizer to get a homogeneous base.^[14]

Procedure

1. Triturate all the ingredients present in the Phase-A in pestle and mortar one by one and prepare a fine powder, sieving can be done if required to get a very fine powder.
 2. With the simple order of mixing, addition of Phase-C was done to Phase-A to get a proper mixture equally.
 3. Then, mix all the extracts present in Phase-B in the above trituration slowly slowly, and mix it well.
 4. Mix the Phase-D ingredients into the above bowl of mixture and again mix it well.
 5. Use single shear- homogenizer if required to get a complete homogenize mixture.
 6. This creamy substance is then stored in a container and further evaluated for the various parameters.
- 3. Characterizations:** Various characterizations are performed for these formulations and the best selected one will be appreciated. The various parameters are as follows.

1. Organoleptic Properties

A) **Color-** Creamish white color was observed while checking manually.

B) **Odour-** The fragrance was felt by applying it on the hand and rubbing it.

C) **Consistency-** Found semi-solid in nature.

D) **Homogeneity and texture-** Scrubbing action was found by pressing the formulation between figure and thumb.

2. Washability- This test was performed directly on skin, preparation applied on skin and wash with normal water, after washing clean and clear skin observed.

3. pH- pH of 1% aqueous solution of formulation was measured by using a calibrated digital pH meter and result found 7.5

4. Viscosity- For Viscosity measurement, Brookfield viscometer "Helepath Spindle A-91 used and result observed as 6960-7100cps at 10 rpm.

5. Extrudability- It is usual empirical test to measure the force required to extrude the material from tube. More quantity extruded, better the extrudability. The formulation under study was filled in a clean, aluminum collapsible tube with nozzle tube of 5mm opening and applied pressure on tube by the help of finger. Tube extrudability was then determined by measuring amount of formulation extruded through the tip when the pressure was applied on tube.

6. Spreadability- Spreadability of the formulations was determined by measuring the spreading diameter by keeping 1 g of sample between two horizontal glass plates (10 cm × 20 cm). The standard weight 20 gm applied on the upper glass plate. The spreading quality checked by visual inspection.

7. Skin irritation- Small quantity of the preparation was applied on the dorsal part of hand and kept for few minutes and found to be non-irritant, No redness and edema or any other adverse effect.

4. RESULTS AND DISCUSSIONS**Table No. 03: Characterizations of Scrub**

Sr. No.	Parameters	Observation
1	Colour	Creamish white
2	Odour	Characteristic as Rose
3	Consistency	Good
4	Homogeneity and texture	Good
5	Washability	Easily washable
6	pH	7.5
7	Viscosity	6960-7100 cps at 10 rpm
8	Extrudability	Easily extruded
9	Spreadability	Easily spread
10	Skin Irritation	Non Irritant



Figure No. 01: Prepared Herbal Facial Scrub.

5. CONCLUSION

The above characterization parameters were found satisfactory and cause no harm to our body. Though the more application to our human skin, it was observed that this facial scrub was able to remove all the dirt, pollutants, chemicals, etc from our skin and make our skin glowing, healthier and we make happier. The parameters were then tested by dermatological testing and can be used for beautification of our skin without causing any adverse effects to our skin.

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