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FORMULATION AND EVALUATION OF HERBAL DRUG CONTAIN FACE SCRUB IN MODERN PHARMACEUTICS: AN HERBAL FORMULATION

GOMASE PV*, TADAVI SA AND PATIL RR

Department of Pharmacognosy, Jijamata Education Society's College of Pharmacy, Nandurbar,
MS, India

*Corresponding Author: Dr. Pravin V. Gomase: E Mail: pravingomase84@gmail.com

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ABSTRACT

Cosmetics have a significant function in today's society for both men and women in terms of improving and changing the appearance of skin. Because they are inexpensive and can enhance skin health, herbal face washes have grown in popularity in recent years. Products used for washing, beautifying, enhancing beauty, or changing appearance are referred to as cosmetics. Making an herbal scrub was the primary goal of this investigation. Natural or herbal cosmetics are made using natural substances to treat wrinkles, acne, and regulate oil output. A sufficient amount of *Lens culinaris* (masoor dal), charcoal, Tulsi leaves, Neem leaves, orange peel powder, lemon peel powder, Multani Mitti, and turmeric powder are all included in the formulation. The prepared scrub met all the characterization requirements after being assessed for appearance, pH, viscosity, spreadability, washability, and irritation, among other factors. As a result, the created mixture works well as a scrub to help maintain skin that is radiant and healthy.

Keywords: Face Scrub, herbs

INTRODUCTION:

The skin is the biggest organ in the body. It serves as a vital organ that shields other bodily organs. The skin acts as a barrier to

shield the interior from threats from the outside, such as dirt and bacteria found in everyday air, as well as the damaging

impacts of the sun, wind, and pollution [1]. The Greek term "cosmetic" means "to adorn," as in adding something ornamental to a person or something. It can be characterized as a material that comes into touch with the skin, hair, nails, lips, teeth, and mucous membranes, among other aspects of the human body. Cosmetic materials aid in enhancing or altering the appearance of the body while also disguising the body's odor. It preserves the skin's health and protection. Cosmetics are often external preparations applied to the body's outside areas. Men and women have decorated their bodies to enhance their look since ancient times. While ladies wore bright stones and flowers around their wrists and necks, men used vegetable leaves and animal parts. They gradually begin applying ointments and colored dirt to their faces and bodies. Products used to exfoliate the skin and remove dead skin cells are referred to as scrubs. Since the skin on the face makes up the majority of the body, both body and facial scrubs can be utilized there. The only thing separating these two is the facial scrub, which is less harsh. The face scrub formula is eliminated. Each scrub has a specific function on the skin and can be applied straight to forms. An individual's skin health. Since different herbs are utilized for

cleansing, beautifying, and managing them, cosmetics are readily available. The ingredients differ depending on the kind of skin. Three varieties of skin exist: dry skin, oily skin, and sensitive skin. It is advised to apply a scrub gel that cleanses, beautifies, promotes attractiveness, or supplies oxygen to all skin surfaces in the appropriate ratios of oil to sugar [2].

Herbal exfoliating scrubs neutralize environmental damage and lessen the symptoms of age-related changes on the skin. Technically speaking, it is possible to employ herbal remedies with anti-aging, vitamin, antioxidant, and antibacterial qualities to cleanse the skin's surface or exfoliate dead skin cells. This eliminates dead skin cells and helps to deeply cleanse the skin, giving it a radiant, appealing appearance. Using a facial scrub is as simple as choosing a standard scrub that is appropriate for your skin type, rubbing it in for a minute on hydrated skin, and then washing it off. Every skin type can use the scrub. Dry, oily, and sensitive skin types are the three varieties of skin. It is advised to gently massage all regions of the skin to promote blood circulation and oxygenation after using the scrub gel [3].

While some people are made to look gorgeous, others are just naturally attractive. The market for herbal goods has grown

significantly in the present environment. The growing health advantages of synthetic components, which contribute to environmental degradation, are driving up demand for herbal goods. Using skin care products can boost people's confidence. Although skin care products were traditionally purchased by women, guys are increasingly equally concerned with how they look. Consuming a balanced diet is necessary to maintain healthy, supple skin. Skin issues will be made worse by environmental factors such UV radiation, pollution, dust, and changes in the weather. There are many different types of herbal products, and each has a specific purpose for the skin. Scrubs are an effective way to address many of the issues that cause skin to become dull and lack shine. There are two kinds of scrubs for the skin: body and face scrubs. It removes dead skin cells and exfoliates the skin. You can use scrub on any type of skin [4].

Ideal Properties of Scrub

An ideal scrub is accepted to possess the following properties. It should be-

- ✓ Non toxic
- ✓ Possess small gritty particles
- ✓ Mild abrasive
- ✓ Non irritating
- ✓ Non sticky

- ✓ Able to remove dead skin cells [5]

Advantages of herbal scrub [5]

- **Gentle Exfoliation:**

Herbal scrubs typically contain natural exfoliants like ground herbs, seeds, or fruit peels, which gently remove dead skin cells without causing irritation or damage to the skin.

- **Natural Ingredients:**

Herbal scrubs are often made from organic or naturally derived ingredients, which reduces the risk of allergic reactions and skin sensitivities compared to products containing synthetic chemicals.

- **Nourishing Properties:**

Many herbs and botanical extracts used in herbal scrubs have inherent nourishing and moisturizing properties, providing additional benefits to the skin beyond exfoliation. They can help hydrate, soften, and rejuvenate the skin.

- **Environmentally Friendly:**

Herbal scrubs often utilize biodegradable ingredients and sustainable sourcing practices, making them more environmentally friendly compared to products containing synthetic microbeads or harsh chemicals.

- **Cost-Effective:**

Making herbal scrubs at home can be cost-effective compared to purchasing commercial skincare products. Many of the ingredients required for herbal scrubs are readily available and affordable, allowing you to create effective skincare solutions at a fraction of the cost

MATERIALS AND METHODS [6, 7]

✓ Plant Material

Orange Peel Powder, Lemon Peel powder, Tulsi leaves powder, Neem leaves powder, Multani Mitti, Turmeric powder, *Lens culinaris* (masoor dal) and charcoal was taken as plant material in this formulation and purchased from the local market of Nandurbar, Maharashtra.

1. Orange Peel Powder



Synonyms: Orange zest

Biological source: It consists of dried fruits of *Citrus sinuses*

Family : Rutaceae.

Description:

Color: Dark orange red

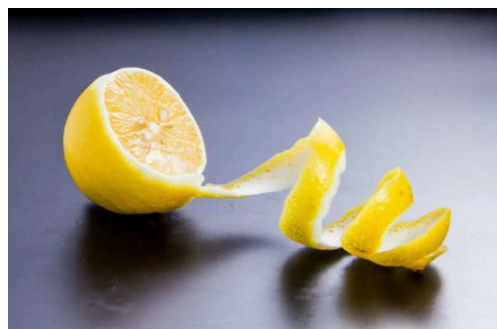
Adour: Aromatic

Taste: Bitter

Chemical constituents : Terpenes, Carotenoids, Flavonoids

Uses: Reduce skin marks, skin spots, help to skin whitening, Treat pimples, acne [5].

2. Lemon Peel powder



Synonyms: Cortex limunis

Biological source: Lemon peel is the outer part of the pericarp of the ripe fruits of *Citrus limonis* contains not less than 2-5% of volatile oil.

Family: Rutaceae

Description:

Colour: Yellow

Odour: Fresh, clean, biting

Taste: Sour

Chemical constituents: Camphene, β -pinene, Sabinene etc.

Uses: Antimicrobial, antifungal, anti-inflammatory, anti-cancer, depurative, Anticancer, antioxidant, Antiparasitic, treat scurvy, skin astringents.

3. Tulsi leaves powder



Synonyms: Tulsi

Biological source: Tulsi consists of the fresh and dried leaves of *Ocimum* species like *Ocimum sanctum* L.

Family: Lamiaceae

Description

Colour: Green

Odour: Aromatic

Taste: Pungent

Chemical constituents: Oleanolic acid, ursolic acid, rosmarinic acid

Uses: Prevents acne and pimples, Improve skin texture, Cleanser [5].

4. Neem leaves Powder



Synonyms: Neem

Biological source: Neem consists of the fresh or dried leaves of *Azadirachta indica* J. Juss

Family: Meliaceae

Description

Colour: green

Odour: Pungent

Taste: Bitter

Chemical constituents: Nimbinin, Nimbidin, Quercetin

Uses: Skin toner, lightens skin blemishes, Remove blackheads.

5. Multani Mitti



Synonyms: Multan clay

Biological source: It consists of hydrous aluminum silicates (clay minerals)

Description

Colour: White

Odour: Pleasant

Taste: Pleasant

Chemical constituents: Montmorillonite, Kaolinite, Attapulgite

Uses: Nourishes skin, reduce oiliness, Remove blackheads.

6. Turmeric Powder



Synonyms: *Curcuma longa*

Biological source: It consists of dried rhizomes of *Curcuma longa* belonging to

Family: Zingiberaceae

Description

Colour: Yellow

Odour: Aromatic

Taste: Bitter

Chemical constituents: Curcumin, Curcuminoids

Uses: Reduce acne, Glowing skin, Lightens skin [5].

7. Masoor dal



Synonyms: red lentil

Biological source: bushy annual plant of the legume

Family: Fabaceae

Description

Colour: Orange

Odour: sweet

Taste: earthy, sweet

Chemical constituents: Phenolic acid, Phytic acid, Flavonoids, Saponins

Uses: for the heart and for managing blood pressure and cholesterol, Expholiator [5].

8. Charcoal



Synonym: Wood Coal

Biological source: It is made from peat, coal, wood, coconut shell, petroleum and mostly from *Trema orientalis*.

Description

Colour: Black

Odour: odorless

Taste: Earthy, Smoky

Chemical Constituents: Carbon, Oxygen.

Uses: hair removing property, remove dirt.

Method of Preparation:

All ingredients were obtained in their crude form from a local distributor. All the ingredients were powdered and sieved through sieve no. 120. All powdered ingredients were packed in moisture resistant, well closed containers. The different ingredients and their key uses are enlisted in **Table 1**.

Table 1: Formulation of Herbal facial scrub

Sr. No	Name	Composition
1	Orange peel powder	1.7gm
2	Lemon peel powder	2gm
3	Tulsi leaves powder	1.8gm
4	Neem leaves powder	1.5gm
5	Multani mitti	2gm
6	Turmeric	2gm
7	Masoor dal	1.5gm
8	Charcoal	2.5gm

Preparation of scrub [8]

Weighted quantity of each ingredient was taken. Orange Peel Powder, Lemon Peel powder, Turmeric powder, *Lens culinaris* (masoor dal) and charcoal and mixed thoroughly in a motor and then other ingredient like wheat cover, around, neem, tulsi powder, Multani Mitti were taken in a another mortar and mixed properly. The two powders were mixed well together and all other remaining ingredients were gradually added with good mixing. Final product was packed in well closed plastic bags each.

EVALUATION TEST:

The prepared face scrub was evaluated for various parameters such as organoleptic properties, consistency, pH, irritability, washability, spreadability was found to be satisfactory. The formulated product performs satisfactorily as a cleansing scrub that promotes healthy and luminous skin [9].

Organoleptic properties include:

Colour, Smell, Texture, Consistency

Spreadability:

We had put small amount of the scrub on a glass slide, then another glass slide was place on top of the gel. We added a 20g wooden weight to the slide and measured how long it took for it to spread. The amount of scrub and the area it spread on the slide show how effectively it spreads.

Irritability

A small amount of the preparation was applied to the dorsal area of the hand, left on for a short time, and was discovered to be non-irritating. There is no oedema or redness occurs.

pH:

A digital pH meter was used to determine the pH of a 1% aqueous formulation solution

Washability:

The scrub was applied on the skin and rinsed with normal water.

RESULTS AND DISCUSSIONS:

Formulation was tested for evaluation parameters such as colour, odour, consistency, irritation, spreadability, washability, pH. All the ingredients are herbal in nature therefore there is no side-

effect. The scrub was also washable with regular water, and the pH of the product was determined to be 7.0 indicating its suitability

for the skin. The formulation can be applied for all skin types (**Table 2**).

Table 2: Evaluation Parameters Result

Sr. No	Parameter	Result
1	Colour	Greenish black
2	Odour	Characteristic
3	Consistency	Good
4	Eye irritation	No irritation
5	Washability	Easily washable
6	pH	7.0
7	Spreadability	Easily spreadable

CONCLUSION:

We try to create a herbal scrub in this effort. After the developed scrub was put to the test on a variety of parameters, it was shown to be safe to use on the skin to enhance health and brightness without having any negative effects. In the skin care sector, vitamin C is becoming more and more well-known as an essential vitamin with antioxidant properties. Through the process of conducting and analyzing multiple formulations, we found that Orange Peel Powder, Lemon Peel Powder, Tulsi Leaves Powder, Neem Leaves Powder, Multani Miti, Masoor Dal, Turmeric, Charcoal, and other components are excellent and efficient for the skin and can be used to reduce dark circles, acne, and scars. The face scrub is cost-effective, useful, and met all evaluation criteria.

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