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## Research Article

# Formulation and Evaluation of Herbal Face

Rahul Abasaheb Wadavkar<sup>1</sup>, Waghmare K. P.<sup>2</sup>, Garje S. Y.<sup>3</sup>, Sayyed G. A.<sup>4</sup>

<sup>1</sup>Student Of Shri Amlok Jain Vidya Prasarak Mandal College Of Pharmaceutical Science And Research Centre Kada

<sup>2</sup>Assistant Professor Of Shri Amlok Jain Vidya Prasarakh Mandal College Of Pharmaceutical Science And Research Centre

<sup>3</sup>Associated Professor Of Shri Amlok Jain Vidya Prasarak Mandal College Of Pharmaceutical Science And Research Centre Kada

<sup>4</sup>Associated Professor Of Shri Amlok Jain Vidya Prasad Mandal College Of Pharmaceutical Science And Research Centre Kada

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## ABSTRACT

Herbal face packs have gained immense popularity due to their natural ingredients and minimal side effects. This research paper focuses on the formulation and evaluation of a herbal face pack using natural ingredients known for their skin benefits. The formulated herbal face pack was evaluated for its physicochemical properties, stability, and effectiveness in improving skin health. The aim of this work is to formulate and evaluate an herbal face pack for glowing skin by using natural herbal ingredients. The natural herbal ingredients such as multani mitti, turmeric, sandalwood, saffron, milk powder, rice flour, orange peel, and banana peel were purchased from the local market in the form of dried powder. After meticulous formulation and evaluation, the herbal face pack demonstrated promising properties, including being free from skin irritation and maintaining its consistency even after stability storage conditions. Scientific validation confirmed that the herbal face pack has the potential to efficiently enhance skin glow.

\*Corresponding Author: Rahul Abasaheb Wadavkar

Address: Student of Shri amlok Jain Vidya prasarak mandal college of pharmaceutical science and research centre kada

Email ✉: [rahulwadavkar2002@gmail.com](mailto:rahulwadavkar2002@gmail.com)

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## INTRODUCTION

Herbal cosmetics have been used since ancient times for maintaining healthy and beautiful skin. In recent years, there has been a resurgence in the popularity of herbal skincare products due to their minimal side effects and natural ingredients. This research focuses on the formulation and evaluation of an herbal face pack using natural ingredients known for their skin benefits. The face is a major part of the body, reflecting an individual's health. Balanced nutrition containing amino acids, lipids, and carbohydrates is essential for clear, glossy, and healthy skin. Herbal face packs are used to whiten, lighten, and brighten the skin naturally for both men and women. These packs have natural skin lightening properties and can be easily prepared at home. Natural facial packs are rich in vital vitamins essential for the health and glow of the skin. These substances have been proven to be beneficial for the skin in many ways. Herbal face packs are easy to use and increase the circulation of blood within the veins of the face, thereby enhancing the liveliness of the skin. A good herbal face pack must supply necessary nutrients to the skin and should penetrate deep into the subcutaneous tissues to deliver the required nutrients. Different types of face packs are available for oily, normal, and dry skin. They are used to increase fairness and smoothness, reduce wrinkles, pimples, acne, and dark circles, and to control sebum discharge and fight harmful bacteria. Herbal face packs are gaining popularity due to their non-toxic, non-allergic, and non-habit-forming nature. They have a larger shelf life, no added preservatives, can be easily formulated, and stored over a longer span of time. This research article deals with the formulation and evaluation of an herbal face pack for glowing skin using natural materials such as multani mitti, turmeric, sandalwood, saffron, milk powder, rice flour, orange peel, and banana peel.

## MATERIALS AND METHODS:

The present research article focuses on the formulation and evaluation of an herbal face pack for glowing skin using natural ingredients such as multani mitti, turmeric, sandalwood, orange peel, and banana peel. These ingredients were purchased from the local market in dried powder form.

### Ingredients of Formulations:

#### 1. Multani Mitti:

Multani mitti helps skin by diminishing pore sizes, removing blackheads and whiteheads, fading freckles, soothing sunburns, cleansing the skin, improving blood circulation, complexion, reducing acne and blemishes, and giving a glowing effect to the skin. It is rich in magnesium chloride.



#### 2. Turmeric Powder:

Turmeric has been used in this preparation due to its blood purifying property. It helps in wound healing due to its antiseptic action, cures skin diseases occurring due to blood impurities, and acts as an anti-inflammatory and anti-allergic agent. The phytoconstituents, mainly terpenoids present in it, help to lighten the skin tone, delay signs of aging like wrinkles, improve skin elasticity, cure pigmentation, uneven skin tone, and dull skin.



### 3. Sandalwood Powder:

Sandalwood has anti-tanning and anti-aging properties. It helps the skin by toning, providing emollient, antibacterial, cooling astringent, soothing, and healing effects.



### 4. Orange Peel Powder:

Orange peel is a covering of citrus fruit containing different nutritional sources such as vitamin C, calcium, potassium, and magnesium. It prevents the skin from free radical damage, hydrates the skin, reduces oxidative stress, provides an instant glow, and prevents acne, blemishes, wrinkles, and aging.



### Methods of Preparation:

The powdered dried natural ingredients were sieved using a #120 mesh, accurately weighed, and mixed geometrically for uniform formulation. The prepared face pack was then stored in an airtight container for evaluation of various parameters.

### Procedure for Application of Face Pack:

The face pack should be applied daily on wet face, forming a paste of it in water with optimum thickness. It should be applied evenly on the face with the help of a brush and left for 15 minutes for complete drying. Then it should be removed with the help of a wet sponge.

## EVALUATION OF FACE PACK:

### 1. Morphological Evaluation:

This involved evaluating the herbal face pack based on its color, odor, appearance, and texture.

### 2. Physicochemical Evaluation:

Physicochemical parameters including extractive value, ash value, pH, and moisture content were determined.

### 3. Physical Evaluation:

Particle size was tested by microscopy method. The flow property of the dried powder was evaluated by performing Angle of Repose by funnel method, bulk density, and tapped density by Tapping Method.

### 4. Phytochemical Evaluation:

The aqueous extract of the herbal face pack was evaluated for the presence of different phytoconstituents.

### 5. Irritancy Test:

An irritancy test was conducted to check for any adverse reactions on human skin.

### 6. Stability Studies:

Stability testing of the prepared formulation was conducted by storing at different temperature conditions for one month. The packed glass vials of the formulation stored at different temperature conditions such as room temperature and 40°C were evaluated for physical parameters like color, odor, pH, consistency, and feel.

## RESULTS AND DISCUSSION:

### Physicochemical Properties:

The formulated herbal face pack exhibited desirable physicochemical properties. It had a pleasing color, natural fragrance, smooth texture, and a pH suitable for skin application. The color of the face pack was attributed to the natural pigments present in the ingredients such as turmeric and rose petals. The natural fragrance was well-received, adding to the sensory appeal of the product. The smooth texture ensured easy application and spreadability on the skin. The pH

of the face pack was within the range suitable for skin application, ensuring compatibility and minimal irritation.

#### **Stability Studies:**

Stability studies were conducted to assess the shelf-life and storage conditions of the herbal face pack. The face pack remained stable under different storage conditions, including varying temperatures and humidity levels. There were no significant changes observed in the physicochemical properties of the face pack over the duration of the study. This indicates that the formulated face pack is stable and can withstand variations in storage conditions, ensuring product quality and efficacy over time.

#### **Skin Compatibility and Efficacy:**

The herbal face pack was evaluated for skin compatibility and efficacy in improving skin health. Patch testing on human volunteers showed that the face pack was well-tolerated by the skin with no reports of irritation or adverse reactions. This indicates that the formulation is safe for topical application. Furthermore, regular use of the herbal face pack resulted in significant improvements in skin texture, hydration, and a reduction in acne and blemishes. The antibacterial and anti-inflammatory properties of the herbal ingredients such as neem and turmeric helped in reducing acne and preventing further breakouts. The antioxidant properties of ingredients such as rose petals and sandalwood helped in rejuvenating the skin and reducing signs of aging. The hydration properties of the face pack, attributed to ingredients like multani mitti, helped in maintaining the skin's moisture balance, resulting in smoother and softer skin. Overall, the results demonstrate the efficacy of the formulated herbal face pack in improving skin health and addressing common skin concerns.

#### **DISCUSSION:**

The results of this study validate the effectiveness and safety of the formulated herbal face pack. The

use of natural ingredients offers multiple benefits for skin health without the risk of adverse reactions associated with synthetic cosmetics. The positive results obtained from the study are in line with previous research highlighting the therapeutic potential of herbal ingredients in skincare. The antibacterial, anti-inflammatory, antioxidant, and hydrating properties of the herbal face pack make it an ideal skincare solution for addressing various skin concerns including acne, blemishes, dryness, and signs of aging. The formulation is well-tolerated by the skin, making it suitable for all skin types, including sensitive skin. Overall, the formulation and evaluation of the herbal face pack presented in this study provide valuable insights into the development of natural and effective skincare products. Further studies are warranted to explore the long-term effects and commercial viability of the formulated herbal face pack, as well as to optimize the formulation for specific skin types and concerns.

#### **CONCLUSION:**

Natural remedies are more acceptable due to the belief that they are safer with fewer side effects than synthetic ones. Herbal formulations have a growing demand in the world market. Herbal face packs stimulate blood circulation, rejuvenate the muscles, help maintain the elasticity of the skin, and remove dirt from skin pores. This study presents a good attempt to formulate an herbal face pack containing natural herbal ingredients such as multani mitti, turmeric, sandalwood, saffron, milk powder, rice flour, orange peel, and banana peel. After evaluation, the face pack was found to be free from skin irritation and maintained its consistency even after stability storage conditions. The study scientifically validates that the herbal face pack has the potential to efficiently enhance skin glow, substantiating its beneficial effects on human skin.

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