

FORMULATION AND EVALUATION OF HERBAL FACE PACK***Khushal Devidas Jadhav, Shaikh M. Zainuddin, Dr. Kavita Kulkarni**

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ABSTRACT

Herbal face packs are becoming increasingly popular because they provide effective skin care without the side effects commonly associated with synthetic cosmetics. The present study focuses on the formulation and evaluation of a polyherbal face pack prepared using natural ingredients such as Multani mitti, turmeric, sandalwood, neem, nutmeg, orange peel, and aloe vera. These ingredients are rich in antibacterial, antioxidant, and skin-rejuvenating properties, making the formulation suitable for all skin types. The prepared face pack was evaluated for physical parameters, organoleptic features, pH, particle size, spreadability, drying time, irritancy, and stability. The results indicated that the formulation was smooth, non-irritant, stable, and easy to apply, with good aesthetic qualities. Overall, the study suggests that herbal face packs can offer a safe, effective, and natural alternative for improving skin texture, reducing acne, enhancing glow, and maintaining

overall skin health.

KEYWORDS

- Herbal cosmetics
- Face pack
- Multani mitti
- Skin rejuvenation
- Antibacterial activity
- Natural ingredients

- Turmeric
- Aloe vera
- Skin brightening
- Cosmetic evaluation

1. INTRODUCTION

The main advantage of using herbal cosmetic is that it is pure and does not have any side effects on the human body. People have rough skin and when they don't take sufficient care, then the skin turns dark due to overexposure to the sun, other pollutants etc. In this article we have formulated herbal face pack to whiten, lighten, hydration and brighten the skin naturally for men and women. This face pack has natural skin lightening property and can be easily prepared at home. Face packs with natural constituents are rich in vital vitamins that are essential for the health and glow of the skin. These substances have been proven to be beneficial for skin in many ways. Natural facial packs are easy to use. They increase the circulation of the blood within the veins of the face, thereby increasing the liveliness of the skin. A good herbal face pack must supply necessary nutrients to the skin, available in the form of free-flowing powder applied facially for the external purpose. It should penetrate deep down the subcutaneous tissues to deliver the required nutrients. Every type of skin is specific for the requirement of skin pack. Nowadays different types of packs are available separately for the oily, normal and dry skin. The Nowadays different types of packs are available separately for the oily, normal and dry skin. packs are used to increase the fairness and smoothness of the skin. It reduces wrinkles, pimples, acne and dark circles of the skin. Face packs which are recommended for oily skin prone to acne, blackheads, usually control the rate of sebum discharge from sebaceous glands and fight the harmful bacteria present inside acne lesion. The leftover marks of skin can be reduced by incorporation of fine powders of sandalwood, rose-petals and dried orange peels. Herbal face packs are nowadays being used on a large scale, due to the various benefits of them over chemical based packs. They are non toxic, nonallergic and non-habit forming. They are natural in every aspect, having larger shelf life. They have no added preservatives.

2. Literature review

1. J. Prathyusha, N. S. Yamani (2019)

Cosmetics play a vital role for everyone to have a joyful and sanguine life. In present scenario herbal cosmeceuticals have more demand because they have no side effects. People

having oily skin suffer from acne, whiteheads and blackheads quite often so scrubbing become more essential. In our present study we formulated 3 different formulations F1, F2, F3 in gel form for oily skin by using turmeric, aloe vera, cinnamon, potato starch, activated charcoal powder, honey, green tea, lemon juice, onion, walnut shell, coconut oil, beet root juice powder, sodium lauryl sulphate, water and evaluated by using various parameters such as physical appearance, viscosity, pH, spreadability, irritability, washability, stability studies and got fruitful results with all the tests.

2. Vidya Keshav Kakad (2022)

Many of the marketed products when applied on the skin cause dryness of skin after its long term use which results less life of skin problems of acne and redness. Solution for this problem is use of scrub which consist all herbal ingredients which increases cleansing, softening, moisturizing, fairness of skin. 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.

3. Millikan, Larry E. Cosmetology (2012)

Exfoliation is the process of removal of removing the old, dead skin cells that cling to the skin's outermost surface. The two types of exfoliation are mechanical and chemical. People's opportunities for seeking dermatological assistance for a myriad of conditions, including acne, rosacea, striae, photodamage, and skin cancers have increased in recent years. Skin exfoliation improves the quality and tone of skin by assisting in the removal of dead skin cells from the surface. Herbal Exfoliant produces soft, supple, re-energized skin and prevents premature skin aging.

4. Chanchal D. and Saraf S. (2009)

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.

5. Swarali Yuvraj Sandanshiv (2023)

Majority of the cosmetic products available in market are of synthetic origin and causes Numerous side effects when used for longer period of time. One of the solutions for this Problem is use of herbal cosmetics. Herbal cosmetics are considered safe for routine use with Minimal side effects. Acne, redness, wrinkles, dark circles, pimples, dry and dead skin is some of the major skin issues. All these problems can be minimized by using herbal cosmetics such as face pack, scrub, cream, etc. Present work focused on preparation of powder based herbal face pack using natural ingredient like orange peel, neem, tulsi, sandalwood, rose oil, etc.

6. Pooja Dave; Gira Patel (2022)

The goal of the project is to test and develop an herbal face pack that contains natural herbal compounds that act as antioxidants, antiseptics, and skin brighteners. Natural herbal components including coffee, multanimitti, arjuna powder, rice flour, gram flour, orange peel powder, nutmeg, milk powder, saffron, aloe vera gel. All natural components were sieved through #120 mesh, carefully weighed, and geometrically blended for a homogeneous formulation, and then tested for phytochemical, morphological, physical, stability, and irritancy, microbial as well as physicochemical properties. Herbal face masks or packs are used to revitalize muscles and improve blood circulation while maintaining healthy skin and eliminating pollutants from pores. All face pack formulations were determined to be good in physical criteria and clear of skin irritations, indicating that the face packs have good qualities, according to this report's results. To identify the practical aids of face packs for human consumption as cosmetic items, more optimization research are needed on this study.

3. AIM AND OBJECTIVE

Aim

Formulation and Evaluation of Herbal Face Pack.

Objective

1. As due to increased pollution, allergy, microbe's etc. human skin has become more sensitive and prone to faster aging. An attempt has been made to synthesize a pack ideal for all skin types. After the synthesis, all the parameters have been calculated in order to meet up the quality standards.
2. To formulate and evaluate a cosmetic preparation poly herbal face pack made from herbal ingredients.

3. Herbal face packs or masks are used to stimulate blood circulation, rejuvenates and help to maintain the elasticity of the skin and remove dirt from skin pores.
4. To moisturize, cleanse, tone and rejuvenate your skin. Masks are designed for each skin and age type.
5. To prepare a herbal face pack using natural Ingredients that are safe and chemical-free.
6. To compare the herbal face pack's performance with commercially available synthetic face packs.

4. Plan of work

1. Selection of topic
2. Literature review
3. Collection of raw material
4. Formulation
5. Evaluation
6. Packaging
7. Labeling
8. Conclusion

5. Drug and excepeient profile

1) Multani mitti (Fullers Earth, Calcium bentonite)

Multani mitti contains bentonite, magnesium, sodium, and calcium which are highly absorbent and offer various skin benefits. It helps skiny different ways like diminishing pore sizes, removing blackheads and whiteheads fading freckles, minimises pores.



Fig. 1

2) Turmeric (Curcuma longa)

Haridra is another name for Turmeric. Haridra has been shown to anti inflammatory, antioxidant property, and anti-allergic activity. It is best blood purifier and helps in wound.



Fig. 2.

healing. It possesses best blood purification action so it is used in all disease with blood impurities origin. Haridra.

3) Sandalwood (*Santalum*)

Sandalwood is the central part of the tree with a characteristic fragrance. The oil extracted from this sandalwood is referred to as the East Indian sandalwood oil and is used in different health conditions.



Fig. 3.

4) Neem (*Azadirachta indica*) The principle constituent of neem leaves include protein, carbohydrates, phosphorus, vitamin and carotene. It eliminates inflammation, disinfectant and is very beneficial for oily skin and acne. The acne is due to antibacterial, anti-inflammatory and anti-oxidant activities of various chemicals.

**Fig. 4.****5) Nutmeg (*Myristica fragrans*)**

A number of species in the genus *Myristica* reduce the seeds or ground spice known as nutmeg. Nutmeg is rich in essential nutrients that contribute to healthy and glowing skin.

**Fig. 5.****6) Orange peel (*Citrus aurantium*)**

Orange is a citrus fruit which contains different nutritional source such as vitamin C, calcium, potassium, and magnesium. It prevents the skin from free radicle damage, skin hydration and oxidative stress. Orange peel powder is rich in vitamin C and other antioxidants. On vitamin C brightens your skin.

**Fig. 6****7) Aloe vera**

Aloe vera is a medicinal plant that has many benefit for the skin and is widely used in cosmetics and Pharmaceutical products benefits of use Aloe vera face pack.

- Antioxidant
- Antibacterial
- Anti-inflammatory
- Collagen production.



Fig. 7.

6. Method of preparation

Formulation of herbal face pack

Step-1: All the required herbal powders for the face pack preparation were accurately weighed individually by using digital balance and ground into fine powder by using sieve no. 120.

Step-2: Then the all ingredients were mixed geometrically by serial dilution method for uniform mixing.

Step-3: Then the prepared face was packed into a self-sealable polythene bag, labelled and used for further studies.

The quantity and composition are listed in Table.

Sr.no	Ingredients (In powder form)	Quantity of sample (100gm)
1	Multani mitti	25mg
2	Turmeric	20mg
3	Sandalwood	20mg
4	Neem	10mg
5	Nutmeg	5mg
6	Orange peel	10mg
7	Aloevera	10mg

7. Evaluation

1) Physical parameters

The different formulation of face pack was prepared Herbal face pack was evaluated for organoleptic parameter The colour of formulation was Brown. The odour of prepared formulations, was pleasant and good acceptable which is desirable to cosmetic formulations. Texture and smoothness was acceptable as per requirement of cosmetic formulations.

2) Organoleptic evaluation

Herbal face pack was evaluated for organoleptic parameters The colour of formulation was brown. The odour of prepared formulations, was pleasant and good acceptable which is desirable to cosmetic formulations. Texture and smoothness was acceptable as per requirement of cosmetic formulations.

3) Physical Evaluation and Physicochemical evaluation

The particle size of formulations was in the range of $22.3 \pm 2.25 \mu\text{m}$. The pH of formulation lied near to neutral. The ash content and moisture content was within limit. Herbal face pack was evaluated for physical parameters (powder property) Rheological findings justified the flow (powder) properties of the herbal face pack. It was found to be a freeflowing and non-sticky in nature.

4) Irritancy test

The results of irritancy test The formulations which was prepared by lowering the concentration of turmeric i.e. formulations showed no redness, edema, inflammation and irritation during irritancy studies.

5) Stability studies

The stability studies showed a slight change in pH of formulation which was stored at 400C and no changes were observed at room temperature and at 350C there was no change in colour and odour at other mentioned conditions of stability.

6) Spreadability Test

To test how easily the face pack spreads on the face without lumps.

7) Drying Time Test

To find out how much time the face pack takes to dry completely on the skin.

8. CONCLUSION

- Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones.
- Herbal formulations have growing demand in the world market.
- Herbal face packs are used to stimulate blood circulation, rejuvenate the muscles and help to maintain the elasticity of the skin and remove dirt from skin pores.
- It is an our good attempt to formulate the herbal face pack containing natural herbal ingredients such as Multani mitti, turmeric, sandal wood, saffron, milk powder, rice flour, orange peel and banana peel.
- After evaluation, we found good properties for the face packs, free from skin irritation and maintained its consistency even after stability storage conditions.
- It has been revealed that herbal face pack having enough potential to give efficient glowing effect on skin.
- The overall study is useful to substantiate product claims due its useful benefits on the human beings.
- Herbal ingredients opened the way to formulate cosmetics without any harmful effect.

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