



Preparation and Evaluation of Polyherbal Face Pack for Glowing Skin

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ABSTRACT

The purpose of herbal face pack for glowing skin by using natural herbal ingredients. The natural herbal ingredients such as multani mati, orange peel, sandal wood, turmeric, milk powder, aloe vera, saffron, charcoal powder, rose petals etc. Since the traditional times, there has been awareness among folks regarding the utilization of plants for the essential desires of a healthy and beautiful skin. Cosmetics are the merchandise wont to clean, beautify and promote enticing look. Cosmetics designed via incorporating natural sources like herbs are tried terribly fulfilling, in header up with this desires of various skin varieties. Herbal formulations are safer than artificial formulation as a result of its aspect impact is incredibly low. The main purpose of herbal face packs are to remove the dark circle, pimples, scars, through the rise blood circulation and maintained it and therefore the rejuvenates the skin and take away dirt particles from the skin pores.

Keywords: Face Pack, Herbal, Formulation, Evaluation , Glowing skin, Herb.

Introduction

Now a day, the herbs are widely used as remedial agents as a result of herbs are simply accessible at less cost. The herbs are used from the traditional time for cleaning, beautifying and also the treatment of varied skin disease (1). The skin of the face is that the major a part of the body however some common skin diseases are skin disorder, black head, pimples, dark circle are seen in youngster. According to ayurveda, skin issues are usually due to environmental factors and free radicals in blood (2). In ancient times, the ladies were terribly acutely aware regarding their beauty and treat the facial skin issues through the medicated herbs like as aloe vera, orange peel, rose and also used herbs for blood purification like chandana, turmeric and a few rock salts (3,4). The herbal cosmetic are main benefit, it is pure and does not have any side effects on the skin and turn out glow on face, the method of smearing of those herbs combine on face is understood as "mukhalepana". It's a beauty medical care and is incredibly popular name as facial (4). The various kinds of skin conditions are would like differing types of herbal face packs, because the some pack do not seem to be suit for the particular type of skin (5). The face pack are increase the blood circulation of veins of the face and supply the required nutrients to the skin for growth of recent cells and healthy (6,7,8). Even today, people particularly in rural areas, and mountainous regions choose the natural remedies like plants extracts for varied cosmetics purposes like aloe vera, orange peel, rose etc. Herbal cosmetics are the product that are used to purify and beautify the skin. The most advantage of using flavourer cosmetic is that it's pure and does not have any adverse effects on the human. People have rough skin and once they do not take enough care, then the skin turns dark due to overexposure to the sun, different pollutants etc. (9,10). Face packs with natural constituents are made in very important vitamins that are essential for the health and glow of the skin. These substances are tried to be useful for skin in many ways natural facial packs are straightforward to use. They increase the circulation of the blood inside the veins of the face, thereby increasing the liveliness of the skin. A good flavourer pack should provide necessary nutrients to the skin, obtainable within the so freeflowing powder applied facially for the external purpose. It will be penetrating deep down the hypodermic tissues to gement the speed of sebum discharge from fat glands and fight the harmful bacterium present within disease of the skin lesion. The leftover marks of skin may be reduced by incorporation of fine powders of sandalwood, rose-petals and dried orange peels. Herbal face packs are today being employed on an oversized scale, because of the varied edges of them over chemical based packs. They are non-toxic and non-allergic. They are natural in each face, having larger shelf life. They no need accessorial preservatives. They will be easily developed and hold on over a bigger span of your time. Present analysis article deals with herbal face pack for glowing skin by exploitation natural materials i.e., multani mati, orange peel, sandal wood, turmeric, milk powder, aloe vera, saffron, charcoal powder, rose petals etc. Face pack is that the sleek powder that is employed for facial application. These preparations are applied on the face within the form of liquid or pastes and allowed to dry and set to create film giving adjustment, strengthening and cleansing impact to the skin. They are typically left on the skin for 10 to 25 minutes to permit all the water to evaporate, the ensuing film thus contracts and hardens and may simply be removed. The warmth and adjustment impact created by application of face pack produces the stimulating sensation of a rejuvenated face, while the mixture and sorption clays employed in these preparations take

away the dirt and grease from the skin of the face. Once the applied restorative is eventually removed skin debris and deposited dirt gets removed with it. Face packs are primarily additives delivering some further benefits. Differing types of herbal face packs are used for different types of skin. Herbal face packs are helps to remove wrinkles, pimples, skin disease and dark circles. Additionally, increase the fairness and smoothness of skin. It additionally helps somebody to spice up their confidence. Piece of writing is that the most helpful and in means for achieving this purpose (11,12).

Material and methods

The crude drugs used in this study were collected from the nearby local area. All the ingredients were washed, shade dried and powdered finely for further use. The following ingredients were used for the preparation of this polyherbal face pack formulation.

1. Multani Mati (Calcium bentonite)

Multani mitti, meaning ‘mud from multan’, is also popular as fuller’s earth. Packed with minerals, fuller’s earth primarily contains varying composition of hydrous aluminium silicates or clay minerals as shown in figure 1. Common components found in fuller’s earth are montmorillonite, kaolinite, and attapulgite, including small amounts of other minerals like calcite, dolomite, and quartz. In some places, fuller’s earth refers to calcium bentonite, altered volcanic ash which is mostly composed of montmorillonite.

Multani mitti can reduced all the impurities and dead skin cells. Multani mitti can facilitate to make your skin bright and wonderful for aggravated and irritated skin. It’s cooling action soothes the skin, relieves the inflammation caused because of aggravated pitta. It removes the dirt and dead skin cells accumulated and replace with fresh, radiant and glowing skin (13).



Fig.1 Multani mati

2. Orange peel (Citrus reticulate)

It has different nutritional source such as vitamin C, calcium, potassium and magnesium. It used to prevent the skin from free radical damage, skin hydration and oxidative stress. It provides the instant glow property on face, prevent acne, blemishes, wrinkles and aging.

The skin of the oranges contains a good amount of polyphenols that protect against several diseases. Peels have anti-cancerous properties, due to the presence of limonene, a naturally occurring chemical as shown in figure 2. The essential oil present in the peel has anti-inflammatory properties that help to make skin healthy and refresh (13).



Fig. 2 Orange peel

3. Sandal wood (*Santalum alba*)

The sandalwood is common in Asian country and it's an anti-tanning and anti-aging property as shown in figure 3. It's applied the treatment of skin problem, it's toning impact, emollient, antibacterial properties, cooling astringen property, soothing and healing property. Sandalwood oil is an amazing oil that aids in curing skin conditions like dry skin, crackling, flaking and wrinkles. Imbalance of Pitta doshas makes the skin prone to acne, blackheads, redness and skin irritations. The goodness of sandalwood oil assists in restoring the damaged skin cells, promotes the skin complexion and maintain skin glow and radiance. Moreover, applying sandalwood oil topically on the affected skin areas facilitates in healing wounds, sores, scars, pimples, burns and averts infections (14).



Fig.3 Sandal wood

4. Turmeric (*Curuma longa*)

Turmeric is principally applied to rejuvenate the skin as shown in figure 4. It is used to cure of skin disorder like wrinkles and blackspot, and has also different properties like antibacterial, antiseptic and anti-inflammatory. It's best supply of blood purifier. Mostly, it's employed in the treatment of disease of the skin because of its antiseptic and antibacterial properties that provide effects against pimples and breakouts to supply a youthful glow to your skin. It also reduces the oily secretion by the sebaceous gland (14,15).



Fig.4 Turmeric powder

5. Milk powder

Milk powder is extremely helpful for skin, as it provides nourishment for dry, rough skin for the longer duration. Milk cream either within the kind of fine raw milk or milk in and of itself provides a superb shine to skin as shown in figure 5. This is beneficial in hydrating the face deeply and makes skin youthful, lustrous and unflawed. It bleaches the skin to remove dark spots, pigmentation, acne etc. This pack additionally removes blackheads, whiteheads, and other skin imperfections naturally. This facial pack helps in attenuation sun tan (16).



Fig.5 Milk powder

6. Aloe vera (Aloe barbadense)

Aloe Vera could be a most vital moisturizer meant for a skin as shown in figure 6. Aloevera rejuvenates skin, hydrates this and keeps skin layer trying fresh all the time. Aloe vera has anti-microbial property. In Aloe vera powder contains many nutrients like glycerol, sodium palmate, sodium carbonate, sodium palm kemelate, sorbitol etc. that are used to treat a numerous variety of disease. Aloe Vera is an excellent remedy to get rid of pigmentation, dark spots and blemishes (17).



Fig.6 Aloe Vera

7. Arjuna bark powder

Arjuna bark extract (Arjuna chaal) prevents skin aging as shown in figure 7. The main and most important role of arjuna bark is it reduces acne marks (Ghadde) natural way. Aging is associated with an increase in the number of free radicals. Arjuna has good antioxidant property that prevents skin damage caused by these free radicals. It strengthens the skin barrier and induces sebum production to reduce the signs of dry skin and protect the skin from external challenges (18).



Fig.7 Arjuna bark powder

8. Neem powder (Azadirachta Indica)

It has an anti-inflammatory, antiseptic activity and highly beneficial for oily and acne prone skin. It is commonly used in antibacterial agents (fig.8) (19).



Fig.8 Neem powder

9. Rose petals:

The natural oils found in roses help retain moisture in the skin. This results in your skin feeling smooth and soft. The sugars in rose petals especially benefit those with sensitive skin. Rose flower petal powder is rich supply of anti-bacterial properties beside the positive effects of vitamin K, C and B. It contains some number of antioxidants as shown in figure 9.

The anti-bacterial properties found in rose makes it amazing for fighting acne and breakouts. Rose water can also help soothe irritated skin. It also Prevent dark circles (20).



Fig.9 Rose petals powder

Method of preparation

The powder dried natural ingredients were sieved using #120 mesh, weight accurately and mixed geometrically for uniform formulation mention in table 1. Prepared herbal face pack (fig.10) was then packed into a self sealable polyethylene bag.



Fig.10 Herbal face pack formulation

Table1 Formulation of face pack

Sr.No	Name of Ingredients	Scientific Name	Quantity of Sample for 50 gm		
			F1	F2	F3
1	Multani Mati	<i>Calcium bentonite</i>	12.5	15	17.5
2	Orange peel	<i>Citrus reticulate</i>	5	5.5	3.5
3	Sandal wood	<i>Santalum alba</i>	12.5	10	7.5
4	Turmeric	<i>Curuma longa</i>	5	2.5	4
5	Milk powder	-	1.5	2	2.5
6	Aloe vera	<i>Aloe barbadense</i>	5	7.5	5.5
7	Neem powder	<i>Azadirachta indica</i>	3	4	5
8	Arjuna bark powder	<i>Terminalia arjuna</i>	3.5	2.5	2
9	Rose petals	<i>Rosa cantifolia</i>	2	1	2.5

Evaluation of face pack**1. Morphological Evaluation**

Some important morphological evaluation is colour, Odour, appearance, texture Smoothness etc. It shows the external characters of the formulation in table 2. (24)

Table 2 Morphological properties

Sr.No	Parameter	Observation		
		F1	F2	F3
1	Appearance	Smooth, fine	Smooth, fine	Smooth, fine
2	Color	Brown Colour	Brown Colour	Brown Colour
3	Odour	Pleasant	Pleasant	Pleasant
4	Texture	fine	fine	fine
6	Smoothness	Smooth	Smooth	Smooth

2. Physicochemical evaluation

Through this type of evaluation, determine some physicochemical property of compounds that used in the formation of face pack such as ash value, moisture contents, pH, particle size (μm) and extractive value. The particle size evaluates through the microscopic method as shown in table 3.

Table 3 Physicochemical evaluation

Sr No.	Parameter	Observation		
		F1	F2	F3
1	Particle size	26.4+5.54	22.5 +2.85	24.8 + 4.36
2	Ash Value	93	87	92
3	pH	6.87	6.87	6.92
4	Loss on Drying	3.3	3	4

3. Phytochemical evaluation

The aqueous extract of the herbal face pack was evaluated for the presence phytochemical constituents, such as carbohydrates, alkaloids, glycosides, tannins and volatile oil as shown in table 4 (25).

Table 4 Phytochemical evaluation

Sr No.	Phytoconstituents	Observation		
		F1	F2	F3
1	Carbohydrates	+	+	+
2	Alkaloids	+	+	+
3	Glycoside	+	+	+
4	Tannins	+	+	+
5	Volatile oil	+	+	+

4. Physical evaluation

The flow property of the dried powder is determined through the angle of repose by funnel method, bulk density and tapped density by tapping method as shown in table 5 (26).

Table 5 Physical evaluation:

Sr.No	Parameter	Observation		
		F1	F2	F3
1	Tapped Density	1.326 gm/ml	1.316 gm/ml	1.317
2	Bulk Density	1.09 gm/ml	1.07 gm/ml	1.05 gm/ml
3	Angle Of Repose	32.510	32.470	32.49

5. Stability studies

The prepared formulation is required testing of stability by storing at different temperature conditions for the period of one month, temperature conditions like, room temperature and 40°C and were evaluated for physical parameters like colour, odour, pH, consistency etc. as shown in table 6 (27).

Table 6 Parameters of stability study

Sr No.	Parameter	Observation					
		Room Temperature			40°C		
		F1	F2	F3	F1	F2	F3
1	Color	No Change	No Change	No Change	No Change	No Change	No Change
2	Odour	No Change	No Change	No Change	No Change	No Change	No Change
3	PH	6.87	6.87	6.92	6.67	6.63	6.76
4	Texture	Fine	Fine	Fine	Fine	Fine	Fine
5	Smoothness	Smooth	Smooth	Smooth	Smooth	Smooth	Smooth

6. Irritancy test

This formulation is used for only external surface. The prepared formulation is showing the absence of Irritation, redness and swelling during irritancy studies (28).

Table 7 Irritancy Test

Sr No.	Evaluation	Observation		
		F1	F2	F3
1	Irritant	Slight	No	Slight
2	Erythema	No	No	No
3	Edema	No	No	No

Application of face pack

The pack will be applied two times in week on wet face, forming a paste of it in water with optimum thickness. It will be applied equally on the face with the help of a brush. It will be left for 15-20 minutes for complete drying. Then it will be removed with the help of a wet sponge (22).

Uses of face pack

1. Softens the skin, removes the dryness because it is made in hydrating agents as powdered milk.
2. Brightens the skin tone because of the presence of chandan and turmeric powder.
3. Cleanses the skin, because of the presence of arjuna powder, it clears the skin by removing the dirt particles adhered to it.
4. Clarifies the skin by fighting the issues of disease of the skin and blemishes, by the removal of excess oil from the face due to the presence of multani mitti.
5. Contains antiseptic action to deal with the minor cuts, marks because of the presence of turmeric powder.
6. Exfoliates skin by removing the dead cells that additionally prevents early aging because of the presence of orange peel.
7. These face masks give a soothing and relaxing result on skin
8. Regular use of natural face masks bring glow to skin, improve skin texture and complexion.
9. Natural face packs build the skin look young and health (21, 22).

Precautions

1. The face pack will be most 15-20 minutes stay on face and afterward wash the face and fully take away the medicaments.
2. Once you are applied face pack on face then the face should be completely dried.
3. Do not scrub vigorously.
4. Avoid applying face pack close to "eye zone" as a result of the skin around eye is extremely fragile. In the method of removing face pack could harm skin around the eyes (22).
5. Face pack two times in week.
6. Once removing the mask, roll an ice cube on facial skin. This helps to close open pores and tightens skin. It also tones and soothes the skin (23).

Result and Discussion

1. Physical Parameter

The different formulation of face pack was prepared and evaluated for physical parameters showed in the Table 5. The flow property parameter showed free flowing properties. The color of herbal formulation F1, F2 and F3 was brown in colour. The odour of prepared formulations was good acceptable which is desirable as cosmetic formulations. The particle size of formulations was in the range of 22.5 +2.85 to 26.4+5.54. The pH of all formulations lied near to neutral range i.e. in the range of 6 to 7 pH. The ash content and moisture content was within limit (Table 3).

2. Irritancy test

The results of irritancy test were shown in Table 6. The formulations F1 and F3 showed mild irritation because of presence of turmeric powder. The formulations which was prepared by lowering the concentration of turmeric i.e. formulations F2 showed no redness, edema, inflammation and irritation during irritancy studies. This formulation is safe to use for skin.

3. Stability studies

Stability studies which were showed in Table 6. There is slight change in pH of formulation which was stored at 40°C and no changes were observed in odour observed at room temperature.

Conclusion

Natural remedies are the simplest treatment of any illness, because these are safer than the artificial ones. At a time, people want treatment for varied skin issues without side effects, thus natural remedies are most suitable choice for this. The herbal pack applied to rejuvenate the muscles, maintain the elasticity of the skin, remove adhered dirt particles and improve the blood circulation. It is applied the treatment of inflammatory disease, pimple, scars, and marks, and provides a soothing, calming and cooling effect on the skin. The natural face packs are used for controlling premature aging to the skin, wrinkles, fine lines and loosing of skin. It will give natural face once using this. It is a really good combination of herbal face pack containing naturally available ingredients like multani mitti, turmeric, aloevera, sandalwood, orange peel, milk powder, arjuna bark powder, neem powder and rose petals.

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