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RESEARCH ARTICLE

PREPARATION AND EVALUATION OF HERBAL FACE PACK

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ABSTRACT

The objective this work is to formulate and evaluate a polyherbal face pack for cosmetic purpose from herbal ingredients. Multani mitti, Manjistha, Haridra, Rakta chandan and lodhra were procured from the local market and were dried, powdered, then passed through sieve no 100, mixed geometrically and evaluated for its organoleptic and physico-chemical, general powder, microscopical characters and chemical evaluation.. The dried powder of combined form had passable flow property which is suitable for a face pack. Particle size of the powder was found to be 20 -25 μ m. The microscopical characters of dried powder of combined form were noted Herbal face packs or masks are used to stimulate blood circulation, rejuvenates the muscles and help to maintain the elasticity of the skin and remove dirt from skin pores. The advantage of herbal cosmetics is their non toxic nature, reduce the allergic reactions and time tested usefulness of many ingredients. Thus in the present work, we found good properties for the face packs and further optimization studies are required on this study to find the useful benefits of face packs on human use as cosmetic product.

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INTRODUCTION

Everybody wants to *get fair* and charming skin. Now a day, Acne, black head, pimples, dark circle are common among youngsters and person who suffers from it. According to Ayurveda, Skin problems are normally due to impurities in blood. Accumulated toxins in the blood during improper food and lifestyle are causing skin related diseases. Various herbs, medicines are described in Ayurveda for blood purification. Herbs like Manjistha, Lodhra, Chandana, Haridra etc. are good example of blood purifier. The herbal paste which is applied on face to treat acne, pimple, scars, marks and pigments are known as “mukha lepa” in ayurveda. The process of smearing this herbal mix on face is known as “mukha lepana”. This beauty therapy is popular as facial. The smooth powder which is used for facial application is “face pack”. A good herbal face pack must supply necessary nutrients to skin. It should penetrate the subcutaneous tissues in order to deliver the required nutrients. Different types of skin need different types of herbal face packs (Rani and Hiremanth, 2002).

The face packs which are mentioned in ayurveda help women to get rid of wrinkles, dark circles, pimples and acne. Herbal face packs increase the fairness and smoothness of skin. We can derive the maximum benefits of herbal face packs by using them according to our skin type. These face packs increase skin glow and are best ayurveda treatment to increase fairness. Face packs are one of the oldest and beautiful methods of cleansing

skin. There are various kinds of face packs described in Ayurveda which have nourishing, healing, cleaning, astringent and antiseptic properties. We can prepare face pack in home with basic integrants found in house and kitchen. Herbal face packs are cheaper and have no side effects for getting fair skin naturally. From the ancient era people are using herbs for cleaning, beautifying and to manage them. Cosmetics are defined as the products used for the purposes of cleansing, beautifying, promoting attractiveness or alternating one's appearance (Rani and Hiremanth, 2002). Homemade natural face packs and masks make way for smooth, radiant and silky skin. In ayurveda, the herbal paste applied on face to treat acne, pimple, scars, marks and pigments are known as “mukha lepa”. “Mukha lepana” is the process of smearing a herbal mix on face. This therapy is now popularly termed as facial (Millikan, 2001). Face pack is the smooth powder which is used for facial application and a good herbal face pack must supply necessary nutrients to skin and should penetrate the subcutaneous tissues to deliver the required nutrients. Different types of skin need different types of herbal face packs. Face packs used in ayurveda helps to reduce wrinkles, pimples, acne and dark circles. They also increase the fairness and smoothness of the skin (Mithal and Saha, 2004). The Natural face packs do contain some vital vitamins that are required for the health and glow of our skin. These substances also prove to be beneficial for our skin in many ways. Natural Facial Packs are less complicated and pretty simple to use. They help us in looking after skin and also prove its worthiness by increasing the circulation of the blood within the veins of the face (Saraf and

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Saraf, 2005). Effects of the facial packs are generally temporary and for the regular glow it should be used 2-3 times a week.

Face packs are mentioned in ayurveda help women to get rid of wrinkles, dark circles, pimples and acne. Herbal face packs increase the fairness and smoothness of skin. We can derive the maximum benefits of herbal face packs by using them according to our skin type. Ayurvedic face packs increase skin glow and are best ayurveda treatment to increase fairness. Face packs are helpful for preventive, promotive and curative of any skin problems. The basic important herbs used for fairness of skin are as below.

Benefits of Applying Face Pack (Chanchal and Saraf, 2009)

1. Nourishes the skin. Fruit face packs supply essential nutrients to skin.
2. Helps to reduce, acne, pimple, scars and marks depending on its herbal ingredients.
3. Face packs usually remove dead cells of skin.
4. These face masks provide a soothing and relaxing effect on skin.
5. They help to restore the lost shine and glow of skin in short span of time.
6. Regular use of natural face masks bring glow to skin, improve skin texture and complexion.
7. The harmful effects of pollution and harsh climates can be effectively combated with judicious use of face packs.
8. They help to prevent premature aging of skin.
9. Formation of wrinkles, fine lines and sagging of skin can be effectively controlled by using natural face packs.
10. Natural face packs make the skin look young and healthy.

Face packs which are recommended for acne, pimple, black heads usually control the over discharge of sebum from sebaceous glands and remove the harmful bacteria inside acne lesion. The scars and marks of skin can be reduced by adding fine powder of sandal, rose petals and orange lentils with acne face pack

Precautions to be Taken While Applying Face Pack (Chanchal and Saraf, 2009)

1. Select the face pack according to your skin type. Take opinion of natural therapist or concerned skin expert before applying face pack.
2. The face pack should not be left on face more than 15 to 20 minutes. Keeping for very long time may result in formation of wrinkles, sagging of skin and enlargement of open pores.
3. Apply face pack once in a week. Don't try to peel or scratch the dried face pack. This may harm underlying skin.
4. Spray water (which is at room temperature) on face before removing dried face pack. After 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.

5. Do not scrub face vigorously. This may result in eruption of pimples and dark spots. Stay away from heat when you have applied face pack.
6. Avoid applying face pack near "eye zone". The skin around eye is very delicate. The process of removing face pack may damage skin around eyes.

MATERIALS AND METHODS

Plant Materials

The materials used in the present study were purchased from local market, dried and powdered for further use. The below mentioned are the details of the plant materials used for the formulation of face pack (Kumar *et al.*, 2011; Madan *et al.*, 2014; Wilkinson *et al.*, 1982).

Multani Mitti (Calcium bentonite): Multani mitti will remove all the impurities and dead skin cells. Multani mitti will help to make you skin radiant and excellent for aggravated and irritated skin. Its cooling action soothes the skin, relieves the inflammation caused due to aggravated pitta. It removes the dirt and dead skin cells accumulated and replace with fresh, radiant and glowing skin.

Manjistha (Rubia Cordifolia): Manjistha holds the reputation of a very good skincare herb. Used externally and internally, it helps one to gain lustre and glow (of the skin) and aids to remove pimples, freckles and discoloration. Its paste should be applied in various skin disorders like itching, black spots on the face, pimples, leucoderma etc. According to Charaka, Manjistha is varnya (improving the complexion), jvarahara (febrifuge) and visaghna (detoxifier)

Haridra (Curuma longa): Haridra has anti-inflammatory and anti-allergic activity. It is best blood purifier and helps in wound healing. It possesses best blood purification action so it is used in all disease with blood impurities origin. Haridra is rejuvenator of skin and revitalizes skin; delays the signs of aging like wrinkles.

Raktachandan (Santalum album): Rakta chandan (**Red Sandalwood Powder**) has curative value in skin allergies. Rakta Chandan powder cooling and soothing action, protects the skin against the impact of environmental pollution and keep the skin cool, fair and healthy. Sandalwood is helpful Ayurvedic herb with antimicrobial properties is used for healing various skin problems and removes scars.

Lodhra (Symplocos racemosa): Its name lodhra in Sanskrit means "that which makes the body firmer." Lodhra nourishes the skin and benefits in acne, wrinkles and other health issues related with skin. It lightens skin colour, reduces skin irritation and benefits for acne, wrinkles and other skin related issues. Lodhra is useful in skin diseases requiring purification of the skin. Lodhra is shavaro (making the body and skin very attractive) and galavastatha (helping the whole body to maintain its shape).

Formulation of Face Pack

The powdered ingredients were sieved using #40 mesh, weighed accurately and mixed geometrically for uniform

mixing [Kumar *et al.*, 2011; Madan *et al.*, 2014; Baby *et al.*, 2004]. This was then stored in an air tight container for evaluation.

How to use?

* Prepare powder of all herbs- Lodhra, Rakta chandan, Haridra, Manjistha, Multani Mitti * Mix all powder as per formula * Make the paste mixing final mixture of herbs with rose water or butter milk. * Apply paste locally in face. * Wash the face with fresh water before it dries up.

Evaluation of Face Pack (Dureja *et al.*, 2005; Banchhor *et al.*, 2009)

Organoleptic Properties: The nature, color, odor, taste and texture of the dried powder of combined form were tested manually. Physicochemical Evaluation: total ash and acid insoluble ash was performed using incinerator, pH was found by using pH meter and moisture content was also performed. General powder Characteristics: The particle size of the dried powder of combined form was tested by microscopy method. The flow property of the dried powder of combined form of combined form was evaluated by performing Angle of Repose by funnel method, bulk density and tapped density by Tapping Method. Shinoda Test: To the extract add few magnesium turnings and concentrated hydrochloric acid. The appearance of red colour indicates the presence of flavonoids.

RESULTS

The results of evaluation are displayed in Table 2. For preformulation studies, characterization of formulation was done for its organoleptic and physico-chemical, general powder, microscopical characters and chemical evaluation. The study of nature, color, odor taste, texture, ash values, moisture content and pH of dried powders of combined form under investigation provided the important feature of organoleptic and physico-chemical evaluation.

Table 1 Formulation of Face Pack

S. No.	Ingredients (common name)	Ingredients (biological name)	Quantity of sample for 100g
1.	Multani Mitti	Calcium bentonite	30%
2.	Manjistha	Rubia cordifolia	20%
3.	Haridra	Curuma longa	20%
4.	Raktachandan	Santalum album	20%
5.	Lodhra	Symplocos racemosa	10%

The presence of ash in the dried powder of combined form was evaluated for total ash and acid insoluble ash values. The yielded was found to be 4g total ash and 2.7g acid insoluble ash. And moisture content value was found to be 4%. The moisture content values observation clearly indicated that the powder of combined form was hygroscopic in nature.

The acidic or alkaline nature of the dried powder of combined form was determined by preparing 1% dispersion of powder form in distilled water and measuring the pH with pH meter. The pH of 1% dispersion of powder was obtained as 7.61 which indicated that the powder of combined form were slightly alkaline in nature.

Table 2 Evaluation of Face Pack

S. No.	Evaluation parameters	Observation
Organoleptic evaluation		
1.	Nature (appearance)	Powder
	Color	Creamish yellow
	Odor	Slight
	Taste	Characteristic
	Texture	Fine
Physicochemical Evaluation		
Ash values		
2.	Total ash	4g
	Acid insoluble ash	2.77g
	Moisture content	4%
	pH	7.61
General powder Characters		
3.	Particle size	20-25µm
	Angle of repose	16°±1°05"
	Bulk density	0.436g/cc
4.	Tapped density	0.413g/cc
	Grittiness	No gritty particles were found when mixed with water
5.	Microscopical features	lignified fibers, fibers, sclerenchyma cells were found
6.	Chemical test: Shinoda Test	Presence of flavonoids.
7.	Nature of face after wash	Soft and fresh, Clean from dirt.





Fig 1 Herbs used in the preparation of Face Pack

Dried powder of combined form was evaluated for particle size, angle of repose, bulk density and tapped density before being formulated.

Values of particle size, angle of repose, bulk density and tapped density obtained for powder of combined form were found to 20-25 μ m, 16 $^{\circ}$ \pm 1 $^{\circ}$ 05", 0.436g/cc and 0.413g/cc respectively, have good flow properties. The microscopical characters shows the presence of lignified fibers, fibers, sclerenchyma cells of dried powder of combined form were noted and also indicate the presence of flavonoids.. The powder had passable flow property which is suitable for a face pack.

DISCUSSION

Herbal face packs or masks are used to stimulate blood circulation, rejuvenates the muscles and help to maintain the elasticity of the skin and remove dirt from skin pores. The advantage of herbal cosmetics is their non toxic nature, reduce the allergic reactions and time tested usefulness of many ingredients. Formulation was creamish yellow in colour and had semisolid consistency.

The formulation was found homogenous, easily washable and also had very slightly alkaline pH which were compatible with normal skin physiology. Angle of repose is a characteristic related to interparticulate friction or resistance to the movement between the particles. The flow property has been classified as per limit of Indian Pharmacopoeia in terms of the angle of repose. The results of all these parameters indicated that the dried powder of combined form possess good flow properties and good packing ability. Consequently, it exhibited good flow properties for formulation to achieve soft, fresh and clean formulation.

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. It is a very good attempt to establish the herbal face pack containing different powder of plants. Thus in the present work, we found good properties for the face packs and further optimization studies are required on this study to find the useful benefits of face packs on human use as cosmetic product.

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