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Research Article

**DEVELOPMENT AND EVALUATION OF HERBAL FACE  
PACK USING VARIOUS PLANT POWDERS**Maheshwaram Laxmi\*<sup>1</sup> and S.Vijayalaxmi<sup>2</sup>

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**Abstract:**

*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 or masks are used to stimulate blood circulation, rejuvenates them muscles and help to maintain the elasticity of the skin and remove dirt from skin pores. It is a very good attempt to establish the herbal face pack containing different powders 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.*

**Key words:** *Face packs, Natural remedies, Herbal formulations etc.*

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**INTRODUCTION:**

World is endowed with a rich wealth of medicinal plants. The variety and sheer number of plants with therapeutic properties is quite astonishing. It is esteemed that around 70,000 plant species from lichens to towering trees, have been used at one or more times for medicinal purposes. Medicinal plants provide the starting material for the isolation or synthesis of conventional drugs [1].

The World Health Organization (WHO) defines a medicinal plant as any plant, which, in one or more of its organs, contains substances that can be used for therapeutic purposes, or which are precursors for chemo pharmaceutical semi synthesis. Medicinal plants have curative properties due to presence of various complex chemical substances of different composition, which are found as plant metabolites especially secondary compounds in one or more parts of these plants. Plant metabolites include: primary metabolites and secondary metabolites. In India, the use of different parts of several medicinal plants to cure specific ailments has been in vogue form ancient times. The indigenous system of medicine namely Ayurveda, Siddha and Unani have been in existence in India. Our knowledge of medicinal plants has mostly been inherited traditional[2-6].

**Benefits of Applying Face Pack [7-10]:**

- Nourishes the skin. Fruit face packs supply essential nutrients to skin.
- Helps to reduce acne, pimple, scars and marks depending on its herbal ingredients.
- Usually face packs made of neem and tulsi help to reduce acne and pimple. Face packs which are recommended for acne, pimple, black head 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
- Face packs usually remove dead cells of skin.
- These face masks provide a soothing and relaxing effect on skin

- They help to restore the lost shine and glow of skin in short span of time.
- Regular use of natural face masks bring glow to skin, improve skin texture and complexion.
- The harmful effects of pollution and harsh climates can be effectively combated with judicious use of face packs.
- They help to prevent premature aging of skin.
- Formation of wrinkles, fine lines and aging of skin can be effectively controlled by using natural face packs.
- Natural face packs make the skin look young and healthy.

**Precautions to be Taken While Applying FacePack [10-13]:**

Select the face pack according to your skin type. Take opinion of natural therapist or concerned skin expert before applying face pack. 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. Apply face pack once in a week. Don't try to peel or scratch the dried face pack. This may harm underlying skin. 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 Do not scrub face vigorously. This may result in eruption of pimples and dark spots [9].

**MATERIALS AND METHODS:**

The all natural materials used in the present study i.e., rose, almonds, turmeric, cinnamon, orange, green gram were purchased from local market of Nalgonda. Orange peel, Rose petals, Cinnamon bark, Green gram pulses, Almond drups, Turmeric rhizomes were collected and kept for drying and grinded to make fine powder by using size reduction mill.

**Weighing:** All the required herbal powders for face pack preparation were accurately weighed individually by using digital balance. The quantity and compositions are listed in Table

**Table 1: Shows composition of poly herbal face pack**

S.No	INGREDIENTS (Common Name)	QUANTITY 50gms	FOR	ACTIVITY
1	Orange peel Powder	12.5 g		complexion
2	Green gram Powder	12.5g		Exfoliates skin
3	Almond Powder	7.5g		Nourishes skin
4	Rose petals Powder	7.5g		Skin toner
5	Turmeric Powder	5g		Anti aging agent
6	Cinnamon Powder	5g		Increases blood flow

**Mixing:** All these fine ingredients were mixed thoroughly by mixer to form a homogenous fine powder.

**Sieving:** Then this fine powder was passed through sieve no.60, to get the sufficient quantity of fine powder.

**Collection and storage:** The powder mixture was collected and store in suitable plastic container and used for doing evaluation parameters.

#### **Evaluation of Poly Herbal Facepack 14-18]**

**Organoleptic properties:** All formulations were evaluated for physical parameters like Color, Odor, Consistency and Feel.

**Particle size:** Control of size and the size range of particles is of a profound importance in pharmacy clinically, the particle size of a drug can affect its release from dosage forms.

The successful formulation of suspensions emulsions and tablets both physical stability and pharmacological response depends on the particle size.

**Sieving method:** This method is the simplest and most widely used method of determining particles size and size distribution

Results are obtained lower limit of 76 $\mu$ m

This method utilizes a series of standard sieves calibrated by the national bureau of standards

According to the method of USP a definite mass of sample is placed on the proper sieve in a mechanical shaker the powder is shaken for a definite period of time and the material that passes through one sieve and is retained on the next finer sieve is collected and weighed and then calculated the particle size.<sup>[10]</sup>

#### **Flow properties of face pack powder [19-24]:**

**Bulk density:** Bulk density is the density of a mass powder divided by bulk volume which is the volume occupied by the powder in a measuring cylinder.

**Tapped density:** Tapped density is an increased bulk density attained after mechanically tapping a container containing the powder sample. After observing the initial powder volume or mass, the measuring cylinder or vessel is mechanically tapped for 1 min and volume or mass readings are taken until little further volume or mass change was observed. It was expressed in grams per cubic centimeter (g/cm<sup>3</sup>).

**Angle of repose:** The angle of repose or critical angle of repose, of a granular material is the steepest

angle of descent or dip relative to the horizontal plane to which a material can be piled without slumping. At this angle, the material on the slope face is on the verge of sliding. The angle of repose can range from 0° to 90°. The morphology of the material affects the angle of repose; smooth, rounded sand grains cannot be piled as steeply as can rough, interlocking sands.

**Determination of ash values:** Ash value is used to determine quality and purity of a crude drug and to establish the identity of it.<sup>1</sup>

**Determination of moisture content:** Moisture content is important for the plant drugs because insufficient drying may lead to possible enzymatic deterioration of active principles. Weigh accurately about 3gm of powder drug was taken in Petri dish and placed in Hot air oven and measure the weight after 30min up to standard weight.

#### **RESULTS AND DISCUSSION:**

The results of evaluation are displayed in Table For organoleptic and physico-chemical and general powder evaluation. The study of nature, color, odour, taste, texture, ash values, moisture content and pH of dried powders of combined form under investigation provided the important feature of organoleptic and physicochemical evaluation.

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 2.72g total ash and 2.59g acid insoluble ash. Moisture content value was found to be 5%. 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 7.12 which indicated that the powder of combined form were slightly alkaline in nature. 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 25 $\mu$ m, 26.56, 0.4807g/cc and 0.8771g/cc respectively, have good flow properties. The powder had passable flow property which is suitable for a face pack and its easily washable with water.

**Table 2: Shows physical characteristics of individual powders**

S.no.	Name of the ingredient	Colour	Odour	Taste	Texture
1.	Cinnamon	Mid Brown	Astringent	Aromatic	Fine powder
2.	Turmeric	Yellow	Characteristic	Slightlybitter	Fine powder
3.	Rose petals	Pink	Pungent	Slightlyfruity	Fine powder
4.	Almond	Creamish	Odourless	Sweet	Fine powder
5.	Orange peel	Light yellow	Characteristic	Slightly sour	Fine powder
6.	Green gram	Creamish	Characteristic	Sweet	Fine powder

**Table 3: Shows results of poly herbal face pack powder**

S.NO.	EVALUATION PARAMETERS	OBSERVATION
	<b>Organoleptic evaluation</b>	
1.	Nature(appearance)	Powder
2.	Colour	Creamish
3.	Odour	Astringent
4.	Taste	Characteristic
5.	Texture	Fine
	<b>Physicochemical evaluation</b>	
	Ash values	
6.	Total ash	2.72g
7.	Acid insoluble ash	2.59g
8.	pH	7.12
9.	Moisture content	5%
	<b>General powder characters</b>	
10.	Particle size	25 $\mu$
11.	Angle of repose	26.56
12.	Bulk density	0.4807g/cm <sup>2</sup>
13.	Tapped density	0.8771g/cm <sup>2</sup>
14.	Irritability	No irritation was observed
15.	Grittiness	No gritty particles were found when mixed with water
16.	Nature of face after wash	Soft and fresh clean from dirt

**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 or masks are used to stimulate blood circulation, rejuvenates those muscles and help to maintain the elasticity of the skin and remove dirt from skin pores. It is a very good attempt to establish the herbal face pack containing different powders of plants. Thus in the present work, we found good properties for the

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