FORMULATION AND EVALUATION OF HERBAL FACE PACK

Divyanshu Verma*, Mansi Upadhyaya and Pritesh Paliwal

Indore Institute of Pharmacy, Opposite IIM, Pithampur Road, Dehri, Rau.

ABSTRACT

The objective of this drive is to create and evaluate bundle of pure ingredients for glowing skin. With various concentrations, 4 high-quality formulations containing various elements such as multani mitti, turmeric, aloe vera, sandal wood, orange peel, neem has been prepared named as F1 to F4. All organized formulations have been evaluated by potential of different parameters like organoleptic residences and physico-chemical parameters and balance. Among all formulations, F2 is used to determine pinnacle in bodily parameters, free from pores and skin inflammation and maintain its consistency even after steadiness in storage stipulations.

KEYWORDS: Formulation, Aesthetic Organoleptic, Stipulations, Inflammation, Consistency.

INTRODUCTION

Cosmetics are commercially reachable products that are used to improve pores and skin via motion of cleansing, beautifying, merchandising attractiveness. From the historical time, different herbs are used for cleaning, beautifying and to manage them.

1. Face pores and skin is the important vicinity of the body, which suggests the fitness of an individual.

2. It consists of substances such amino acids, lipids and carbohydrates etc. So that a balanced nutrition is required for the pores and skin to keep it clear and healthy effortlessly.

3. In ayurveda, the natural paste is mentioned as “mukha lepa” used for facial therapy. This natural paste smeared on face to treat acne, pimples, scars, marks and pigmentation.
4. Face pack is the facial applicant used in the form of paste. These preparations are utilized on the face in the form of liquid or pastes and allowed to dry and set to shape giving tightening, strengthening and cleansing effect to the skin.

5. They are often left on the pores and skin for 10 to 25 minutes to permit all the water to evaporate, the ensuing film thus contracts and hardens and can barring challenges be removed. The warmth and tightening have an effect on produced through utility of face pack produces the stimulating sensation of a rejuvenated face, while the colloidal and adsorption clays used in these preparations dispose of the grime and grease from the pores and skin of the face. The use of facepack gives a healthy clear glow to the skin by reducing pores and cleaning dirt. Face packs are truly factors turning in some extra benefits. Different sorts of natural face packs are used for different types of skin. Herbal face packs help to limit wrinkles, pimples, acne and dark circles. Also extend the fairness and smoothness of skin. It moreover helps absolutely everyone to build their confidence.

6. Ayurveda is the most genuinely useful and profitable means for reaching this purpose.

These packs are reachable in varieties and broadly labeled into the following categories:
1. Plastic masks: Wax based, latex based, or vinyl chiefly primarily based
2. Hydrocolloid masks: Gel masks (ready to use)
3. Argillaceous masks: Clay based totally, earth primarily based (ready to use or dry powder) with the factors and evaluation of beauty herbal face pack for glowing skin at home by way of achievable of the utilization of natural sources i.e., multani mitti, turmeric, Aloe-vera, sandalwood, orange peel and neem.

MATERIAL
All the natural materials used in this study i.e., Multani mitti, turmeric, Aloe vera, sandalwood, orange peel, neem had been bought from the local market of Indore (Madhya Pradesh), in the form of dried powder and has been authenticated and verified at the pharmacognosy branch of indore institute of pharmacy, indore. The details of the plant material used for the formulation of face pack are mentioned below.

Multani Mitti (Calcium bentonite)
Multani mitti helps skin by out of the ordinary behavior like losing ground aperture sizes, removing blackheads and whiteheads evaporation freckles, relaxing sunburns, refining skin,
civilizing blood circulation, complexion, plummeting bad skin and blemishes and gives a glowing skin, cause to a skin as they hold back vigorous nutrients. Multani mitti is vivid magnesium chloride.

**Turmeric (Curuma longa)**
Turmeric is chiefly second-hand to revive the skin. It delays the cryptogram of aging like wrinkles and as well possesses other properties like antibacterial, tame and anti-inflammatory. It is the most excellent blood purifier. It is in effect in healing a skin condition and its clean and antibacterial properties that combat reaction and breakouts to give a glow to your skin. It reduces the grease emission by the sebaceous glands.

**Aloe Vera (Aloe barbadensis)**
Aloe vera is a majestic moisturizer planned for a skin. Aloe vera rejuvenates skin, hydrates this and keeps the skin layer looking bright the entire time. Aloe vera has anti-microbial chattels rendering it best to compact with bad skin and pimples. Aloe vera powder contains numerous nutrients like glycerin, sodium palmate, sodium carbonate, sodium palm kemelate, sorbitol, etc.

**Sandalwood (Santalum alba)**
Sandalwood has an anti-tanning and anti-aging property. It furthermore helps skin in a lot of customs like complementary effect, emollient, antibacterial properties, cooling contracting property, gentle and medicinal identifiable.

**Orangepeel (Citrus reticulata)**
Orange is a citrus fruit which contains different nutritional sources such as vitamin C, calcium, potassium and magnesium. It cures and prevents the skin from several types of damages such as dehydration, oxidative stress, wrinkles, aging, acne and provides the natural glow to dead skin cells.

**Neem (Azadirachta indica)**
Neem is anti-inflammatory, pure and substantially beneficial for oily skin condition. An anti-acne impression is outstanding to antimicrobial, anti-inflammatory and antioxidant actions of something else compound constituents.
Methods of Preparation
Four different types of formulations were ready and named as F1 to F4. Concentration of every ingredient was mentioned in Table1. The exact measure ingredients were weighed and established into exceptional powder via sieve by #120. Followed by the every part of ingredients being miscellaneous geometrically by soap intensity structure for consistent mixing. in that case the arranged look toward horde was packed into a self-sealable polyethylene bag, labeled and second-hand for more studies.

Method face pack application
Take prepared face pack powder in a bowl as a piece of the requirement and count rose run to mix. combine properly and fix it over the facial skin. cover up the skin condition and blemishes a skin condition too. reserved as it is for perfect drying for 20 to 25 min and afterward clean with distant water.

Methods of evaluation
Following evaluation parameters were performed to make certain superiority of prepared face pack.

Organoleptic evaluation
The organoleptic parameters incorporates its nature, color, odor, and regularity which were evaluated manually for its physical properties.

Physical evaluation
The particle size was tested by microscopy method. The angle of repose (using funnel) method was used to evaluate flow property of the dried powder, and tapping method was used to evaluate tap density and bulk density of the powder.

Physiochemical evaluation
Ash count was performed by incinerator, pH was checked via pH meter, and loss on drying was additionally performed.

Irritant test
Spot an area (2sq.cm) on the left hand dorsal. Appropriate amount of the prepared face pack was tested by applying it onto a specific area edema, erythema, irritancy was checked at a regular interval of time upto 24hrs and then was reported.
Stability studies
Stability taxing of ready formulation was conducted for formulation F2 by storing at unique fever circumstances for the dot of one month. The packed beaker vials of formulation stored at altered high temperature situation viz., extent temperature, 35ºC and 40ºC and were evaluated for corporal parameters like Color, Odor, pH, constancy and feel.

Table 1: Formulation of face pack.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of ingredients</th>
<th>Scientific name</th>
<th>Quantity of sample for 100g</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Multani Mitti</td>
<td>Calcium Bentonite</td>
<td>25  30  35  15</td>
</tr>
<tr>
<td>2</td>
<td>Turmeric</td>
<td>Curuma longa</td>
<td>20  5   10   20</td>
</tr>
<tr>
<td>3</td>
<td>Aloe Vera</td>
<td>Aloe barbadensis</td>
<td>10  15  10   20</td>
</tr>
<tr>
<td>4</td>
<td>Sandalwood</td>
<td>Santalum alba</td>
<td>25  25  20   25</td>
</tr>
<tr>
<td>5</td>
<td>Orange peel</td>
<td>Citrus reticulate</td>
<td>10  12  6    5</td>
</tr>
<tr>
<td>6</td>
<td>Neem</td>
<td>Azadirachta indica</td>
<td>3   8   15   10</td>
</tr>
</tbody>
</table>

Table 2: Organoleptic Properties.

<table>
<thead>
<tr>
<th>Sr. no.</th>
<th>Parameters</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Appearance</td>
<td>Powder (Free Flowing)</td>
</tr>
<tr>
<td>2</td>
<td>Color</td>
<td>Slight Yellow</td>
</tr>
<tr>
<td>3</td>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td>4</td>
<td>Texture</td>
<td>Fine</td>
</tr>
<tr>
<td>5</td>
<td>Smoothness</td>
<td>Smooth</td>
</tr>
</tbody>
</table>

Table 3: Physical Parameter and Physicochemical evaluation.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Parameters</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Particle size (μm)</td>
<td>26.4±5.44</td>
</tr>
<tr>
<td>2</td>
<td>Ash content</td>
<td>93 ± 0.732 87 ± 0.859 92 ± 0.556 95 ± 0.462</td>
</tr>
<tr>
<td>3</td>
<td>pH</td>
<td>7.66 ± 0.13 6.65 ± 0.1 6.79± 0.16 6.88± 0.1</td>
</tr>
<tr>
<td>4</td>
<td>Loss on Drying</td>
<td>3.33 3 4 3.67</td>
</tr>
</tbody>
</table>

Table 4: Irritancy Test.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Evaluation</th>
<th>Formulations</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Irritant</td>
<td>F1: +  F2: NIL  F3: +  F4: +</td>
<td>- No Irritation</td>
</tr>
<tr>
<td>2</td>
<td>Erythema</td>
<td>F1: NIL  F2: NIL  F3: NIL  F4: NIL</td>
<td>- No Irritation</td>
</tr>
<tr>
<td>3</td>
<td>Edema</td>
<td>F1: NIL  F2: NIL  F3: NIL  F4: NIL</td>
<td>- No Irritation</td>
</tr>
</tbody>
</table>
Table 5: Parameters of Stability studies of Formulation F2.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Parameters</th>
<th>Observations (Formulations F2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Room Temperature</td>
</tr>
<tr>
<td>1</td>
<td>Color</td>
<td>No change</td>
</tr>
<tr>
<td>2</td>
<td>Odour</td>
<td>No change</td>
</tr>
<tr>
<td>3</td>
<td>pH</td>
<td>6.65±0.17</td>
</tr>
<tr>
<td>4</td>
<td>Texture</td>
<td>Fine</td>
</tr>
<tr>
<td>5</td>
<td>Smoothness</td>
<td>Smooth</td>
</tr>
</tbody>
</table>

Figure 1: Particle Size and pH of Formulations F1 to F4.

Figure 2: pH of Formulation F2 during Stability studies.
RESULT AND DISCUSSION

Physical parameters
The different formulation of Face Pack was formulated and evaluated for raw parameters shown in the table 2. The flow property parameter showed free flowing properties. Formulation F1, F2 and F4 were a little fair in dye and formulation F3 showed as greenish yellow. The aroma of ready formulations was reliable all right which is looked-for as beauty formulations. The particle extent of formulations was in the stretch of 22.5±2.85μm to 26.4±5.44 μm (Figure 1). The pH of each and every one formulations lied near to the neutral array i.e. in the limit of 6 to 7 pH. (Figure 2). The ash content and humidity or moisture content was inside limits (Table 3).

Irritant test
The consequences of the irritant test were published in table 4. The formulations F1, F3 and F4 showed mild irritation for the reason of manifestation of turmeric powder. The formulations which were geared up by lowering the concentration of turmeric i.e. formulations F2 showed no redness, edema, irritation and irritation during irritant studies. This formulation is in safe hands to use for skin.

Stability studies
The stability studies showed a feeble transformation in pH of formulation which was stored at 40ºC and no changes were noticed at room temperature and at 35ºC (Figure 3). The odour of formulation was somewhat misrepresented after one month of stability studies at 40ºC and at hand was no replacement in color and odor at other mentioned state of affairs of stability which were shown in table 5.

CONCLUSION
In the stage scenario, live in essential restore to health for assorted skin harms without section effects. Herbal ingredients opened the avenue to invent perfume without any detrimental effect. Herbal face packs are careful as a sustaining and productive line of attack to advance the look of skin. Along these lines in the stage work, It is a dreadfully good quality to have a go to prepare the herbal tackle crowd containing physically presented ingredients. It is not compulsory that the all set formulation was physico-chemically and microbiologically stable, and possessed characteristics of a rank cosmeceuticals formulation for skincare.
REFERENCES
2. www.pharmatutor.org/articles/herbal-cosmetics-used-for-skin-hair-care