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FACEPACK OF ORANGE PEEL FOR GLOWING SKIN

[1]Swarupa Prakash Thavare, [2]Gajanan Vinod Dongare, [3]Vaishnav Sanjay Chavare, [4]Anuja Arjun Gavali, [5]Ajit Yuvraj Jain

[1]Assistant Professor, [2]Bphram final year student , [3]Bpharm final year student , [4]Bpharm final year student , [5]Bpharm final year

Sojar college of pharmacy khandvi

Abstract :

The aim of this study is to create and assess a herbal cosmetic face pack that uses natural components to promote glowing skin. These days, everyone aspires to have lovely, light skin. Because natural medicines are thought to be safer and have less adverse effects than synthetic ones, they are more widely accepted. By allowing blood to flow through the veins in our faces, they both assist us in taking care of our skin and demonstrate its value. The study's findings provided scientific confirmation that a herbal face pack had the capacity to effectively brighten skin. Because of the entire study's beneficial effects on people, it can be used to support claims made about products.

Keywords : Herbal face pack, Natural ingredients, Orange peel, Evaluation.

Introduction :

Cosmetics are goods that improve, encourage, purify, or alter appearance. Numerous herbs have been used for cleaning, beautifying, and healing purposes since ancient times. The herbal pasties called "Mukhalepa" were used as facial therapy in Ayurveda. The most visible sign of health on the human body is the skin on the face.

The smooth fine powder used for beautifying the faceis called facepack. These treatments, which are applied to the face as a paste or liquid and then allowed to dry and harden into a film, tighten, nourish, and cleanse the skin. To let all the water to evaporate, they are often applied to the skin for ten to twenty-five minutes. After that, the resulting layer compresses, hardens, and becomes readily removed. A face pack's tightening and warming qualities promote the look of a rejuvenated face. When the face pack is eventually removed, accumulated dirt and skin particles are also eliminated.(1)

An effective herbal face pack should be a loose powder that can be applied externally to the face and gives the skin the vital nutrients it needs. To give the demanded nutrients it should access into the subcutaneous tissue. Every skin type has different needs when it comes to skin packs. There are now various pack types available

for dry, normal, and oily skin types. Face packs are applied to the skin to enhance its smoothness and fairness. It aids in the removal of wrinkles, acne, breakouts, and dark circles under the eyes.(2)

Objectives:

• Helping to reduce signs of aging.

• Main purpose of herbal face packs are to remove dark circles, pimples, scars.

• The benefits of herbal based cosmetics are their nontoxic in nature.

• The face pack supplies vital nourishment to the skin.

Material and Equipments:

Formulation and evaluation of herbal face pack for glowing skin by using natural ingredient i.e. Orange peel, Sandal wood, Aloe vera, Multani mitti, Turmeric. They were bought from original request in the form of dried greasepaint. All ingredients authenticated at Botany department of Sojar college of pharmacy, khandvi. The details of the natural ingredient used for the formulation of herbal face pack are mentioned below.

Materials:

1) **Orange peel**
   - **Scientific name** –Citrus reticulate
   - **Synonym** – Sweet orange
   - **Biological source** –Orange peel consist of fresh and dried outer part of the pericarp of *citrus aurantium linn*
   - **Family** – Rutaceae
   - **Genus** –Citrus
   - **Chemical constituents** :Limonene (90%), Citral (4%), Vitamin C, Pectin, Hesperidine, Aurantimarin Aurantimaric acid, Octanal (39%), Decanal (42%), Monoterpene (91%) and contains no less than 2.5% Volatile oil. (3)

❖ **Uses :**

- Protects skin from free radical damage.
- Heals dry, flaky, and itchy skin.
- Hydrates dehydrated skin.
- Brings back moisture.
- Prevents oxidative stress in skin cells, for immature, glowing skin.
- Works as a skin lightening agent.
- Removes tan.
- Loaded with Anti-ageing properties.
- Promotes healthy skin glow.(4)

2) Sandal Wood

❖ **Scientific name** –Santalum alba

❖ **Synonym :** Sandal, Indian sandal Wood oil

❖ **Biological source:** Dried heart wood of *santalum album*

❖ **Family :** Santalaceae

❖ **Chemical constituents:** 90% Sesquiterpenic alcohols of which 50-60% is the tricyclic alpha-santalol, beta-santalol comprises 20-25%.

❖ **Uses**

- Skin softening effect
- Pimple and acne treatment
- Anti-tanning property
- Anti-aging property
- Also act as emollient, antibacterial property, cooling astringent property, soothing and healing property.(5)

3) Aloe vera

- **Scientific name –** Aloe barbadensis.
- **Synonym –**aloe, kumari.
- **Biological source –**Aloe consist of dried juice collected by incision from bases of the leaves of species *Aloe barbadensis.*
- **Family –**Asphodelaceae**.**
- **Chemical constituents :** Amino acid, vitamins, lipids, sterol, tannin and enzymes, phenol, saponin, anthraqinones.

- **Uses**
  - Moisturizing agent
  - Remove dead skin cells
  - Treating acne, sunburn
  - Hydrates skin
  - Anti-microbial property. (6)

4) Multani mitti

- **Scientific name –**Fuller's Earth.
- **Synonym –** Multani mitti.
- **Chemical constituents:** Silica, iron oxide, lime, magnesia and water.

- **Uses**
  - It is able to sooth inflammatory property like eczema dermatitis and psoriasis.

- Fights acne and pimples
- Remove excess sebum and oil
- Brightens the skin
- Treats tanning and pigmentation. (7)

5) Turmeric

- **Scientific name –** Curcuma longa
- **Synonym –** Turmeric root, Wid curcuma
- **Family –** Zingiberaceae
- **Biological source –** Turmeric consist of dried as well as fresh rhizomes of plant *Curcuma longa linn*

- **Chemical constituents:** Curcumin I, Curmumin II, III, dihydrocurcumin, 3-6% polyphenolic compounds, curcuminoid's, Demethoxy Curcumin and bisdemethoxycurcumin.
- **Uses**
  - Blood purifying property
  - Antibacterial property
  - Antifungal activity
  - Reduce the oil secretion by the sebaceous gland. (8,9)

Equipment

Sr.no	Equipment
1	Mortar and pestle
2	Hot air oven
3	Sieve no 100
4	Blender
5	Weighing balance
6	Spatula

Formulation of face pack

Sr.no	Ingredient	Quantity given	Quantity taken	Use of ingredient
1	Orange peel	50 gm	25 gm	Lighten and brightens the skin, promotes healthy skin glow.
2	Sandalwood	30 gm	15 gm	Anti-aging property, anti-tanning property, softens the skin.
3	Aloevera	2.0 ml	1.0 ml	Moisturizing agent, emollient.
4	Multanimitti	8.5 gm	4.3 gm	Removes excess sebum and oil, fights acne.
5	Turmeric	9.5 gm	4.8 gm	Antibacterial, antifungal, and adds glow to skin.

Method of preparation

- Every herbal ingredient is dehydrated and processed through a blender to reduce size.
- The ingredients are sieved to create a fine powder.
- Every herb powder component required to make a face mask was precisely weighed using a digital balance.
- After all of the ingredients have been weighed and combined, the powder mixture is collected, kept in an appropriate plastic container, and used as an evaluation parameter.(10)

Procedure for face pack application

- In the first step, combine the face pack powder that has been prepared according to the instructions in a bowl with rose water.
- In the second step, evenly apply the mixture to the face, avoiding the lips and eyes. Incorporate blemish and acne coverage. To ensure that the pack dries completely, leave it on your face for ten to twenty minutes.
- Washing your face with cold water is the third step.(11)

Evaluation

The following parameters were performed to ensure the quality of prepared face pack

- **Organoleptic evaluation –**

  The organoleptic parameters include it's appearance, colour, odour, texture, grittiness, washability, which were evaluated manually for its physical properties. (12)

- **Irritancy test –**

  Mark an area of 1sq.cm on the left hand dorsal surface. A definite quantity of prepared face packs was applied to the specified area and time was noted. Irritancy, erythema, edema was checked if any for regular intervals up to 24 hrs and reported.(13)

- **Stability studies –**

  Stability testing of prepared formulation was conducted for batch B3 by storing at different temperature conditions for the period of one month. The packed glass vials of formulation stored at different temperature conditions viz. room temperature, 35degre C and were evaluation for physical parameters like colour, odour, PH, consistency and feel.(14)

- **Determination of moisture content –**

  Weigh about 1.5gm of the powdered drug into a weighed flat and thin porcelain dish. Dry in the over at 100 degree C and 105 degree C, until two consecutive weights do not differ by more than 0.5 mg cool in desiccators and weigh. The loss in weight is usually recorded as moisture.(15)

- **Determination of rheological properties of the prepared face pack**

  Parameters like untapped (Bulk) density, tapped density, angle of repose,

  Hausner's ratio and Carr's index were observed and calculated for the formulation. Bulk density refers to the adjustment of particles and granules to pack themselves collectively. The Hausner's ratio is calculated as D/D' where D is the tapped density and D' the bulk density, Car's index helps to measures powder flow from bulk density.(16,17)

- **Angle of repose –**

  It is defined as the maximum angle in between the surface of pile of powder to the horizontal flow. The properties of powder sample good according to the scale range.

- **Bulk density flow –**

  Density is the ratio between the given mass of a powder and its bulk volume. Required amount of the powder is dried and filled in a50 ml measuring cylinder up to 50 ml mark. Then the cylinder is dropped onto a hard wood surface from a height of 1 lich at 2 second intervals. The volume of the powder is measured. Then the powder is weighed. This is reported to get average values. The bulk density is calculated by using the below given formula.

  Bulk density=Volume/mass.

- **Tapped density –**

  Tapped density is an increased bulk density attained after mechanically tapping a container containing the powder volume or mass the measuring cylinder or vessel is mechanically tapped for 1 min and volume or mass reading are taken until little further volume or mass change was observed. It was expressed in gram per cubiccentimeter (g/cm3).

- **Particle size -**

  Particle size is a parameter which affect various properties like spread ability, grittiness, etc. Particle size was determined by sieving method. Standard sieves by mechanical shaking for 10 min.

- **Total ash value –**

  Place about 2-4g of the ground air-dried material, accurately weighed, in a previously ignited and tared crucible (usually of platinum or silica). Spread the material in an even layer and ignite it by gradually increasing the heat to 500-600°C until it is white, indicating the absence of carbon. Cool in a desiccator and weigh. If carbon-free ash cannot be obtained in this manner, cool the crucible and moisten the residue with about 2 ml of water or a saturated solution of ammonium nitrate R. Dry on a water-bath, then on a hot-plate and ignite to constant weight. Allow the residue to cool in a

  Suitable desiccator for 30 minutes and then weigh without delay. Calculate Ash value using formula as given below

  Total ash value = (ash wt.) - (crucible wt.)) x 100 / [(crucible and sample wt.) - (crucible wt.)]

- **Water soluble ash –**

  To the crucible containing the total ash, add 25 ml of water and boil for 5 minutes. Collect the insoluble matter in a sintered-glass crucible or on an ashless

  filter-paper. Wash with hot water and ignite in a crucible for 15 min. at a temperature not exceeding 450 degree C. Subtract the weight of this residue in mg from the weight of total ash. Calculate the content of water-soluble ash in g of air-dried material.

- **Acid insoluble ash –**

  To the crucible containing the total ash, add 25 ml of hydrochloric acid up(~70g/l) TS, cover with a watch-glass and boil gently for 5 min. Rinse the watch-

  glass with 5 ml of hot water and add this liquid to the crucible. Collect the insoluble matter on an ashless filter-paper and wash with hot water until the filtrate is neutral. Transfer the filter-paper containing the insoluble matter to the original crucible, dry on a hot-plate and ignite to constant weight. Allow the residue to cool in a suitable desiccator for 30 min and then weigh without delay. Calculate the content of acid-insoluble ash in g of air-dried material.(18)

- **PH –**

  PH of 1% aqueous solution of the formulation was measured by using a calibrated digital PH meter at constant.

- **Washability –**

  This is the common method for checking the wash ability of the formulation. The formulation was applied on the skin and then ease and extend of washing with water were checked manually by busing 1 litre of water is used to remove all content of the formulations were applied on the surface.

Result

The various face pack formulations were created and their physical properties assessed. Free-flowing characteristics were evident in the flow property parameters. Due to variations in the content's composition, formulation colours varied. The formulations were prepared in a good, acceptable order that is ideal for cosmetic formulations. The formulations had particles that ranged in size from 20 to 30 microns. All formulations had PH values that were close to neutral, or between 6 and 7, as shown. Ash content and moisture content were within acceptable ranges.(19)

Organoleptic evaluation

Sr. No	Parameter	Obtained result	Ideal result
1	Nature	Powder	Powder
2	Odour	Pleasant	Pleasant
3	Colour	Brown	Vary
4	Texture	Fine	Fine

Irritancy test

Sr.no	Parameter	Observation
1	Irritation	No irritation
2	Erythema	No erythema
3	Edema	No edema

Stability studies

Sr.no	Parameter	Room temperature	40°C
1	Colour	No change	No change
2	Odour	No Change	No change
3	Texture	Fine	Fine
4	PH	6	6

Physicochemical evaluation

Sr.no	Parameter	Obtained result	Ideal result
1	Moisture content	0.20%	<5%
2	Angle of repose	34.13	Depend on material /vary
3	Bulk density flow	20g/ml	0.83g/ml
4	Tapped density	15.5g/ml	0.74g/ml
5	Particle size	30-35 micrometre	25-30 micrometer
6	Wash ability	Easily washable	Easily washable
7	Total ash value	17.36 %	10-20g/ml
8	Water soluble ash	0.35g	0.1-2g
9	Acid insoluble ash	23.72 %	31.06 %

Conclusion

The perception that natural remedies are safer and less likely to cause side effects than synthetic ones has led to their increased acceptance. The modern population needs treatments for a variety of skin conditions that don't have any side effects. Cosmetics without any unfavourable side effects could now be produced due to the usage of herbal ingredients. Herbal face masks are believed to be a trustworthy and efficient method of enhancing skin appearance. Thus, the creation of herbal face packs in the current work is commendable since it makes use of easily accessible ingredients like orange peels, sandalwood, turmeric, Multani mitti, and Aloe Vera. In the current work, we found good properties for the face pack; however, the future, farther optimisation studies are needed on this study to find the useful benefits of face packs on mortal use as ornamental product. herbal face packs are used to stimulate blood circulation, rejuvenate the muscles, help to maintain the elasticity of the skin, and remove dirt from skin pores. The advantage of herbal cosmetics is their non-toxic nature, which reduces the allergic reactions and time-tested usefulness of many ingredients.

References

1. Neware PR, Rahangdale RS, Patel OD, Suryavanshi MM et al. Formulation and Evaluation Of Herbal ace Pack For Acne-prone skin. IJFANS 2022;11(5). http://www.ijfans.org.
2. Mithal BM, SadhaRN. A hand book of cosmetics.
3. Orange peel Biological source, Morphological features, chemical constitutes and Uses. Nov. 03, 2020. www.gpatindia. Com.
4. 5 ways you can use orange peels to get glowing skin. Updated on March 02, 2021. www.timesnownews.com
5. Nemade Ct, Baste N. Formulation and evaluation of a herbal facial scrub. World J Pharm Ress 2014; 3(3): 4367-4371.

6. Rajeswari R, Umadevi m, Rahale cs, Pushpa R. Selvavenkadesh S. Sampath kumar Kp, Bhowmilk D. Aloe Vera; The miracle plant Its medicinal and Traditional uses in India. J Pharmacognphytochem 2012; 1(4): 118-124.
7. Hawang JK, shim JS, Gwan SH, Kwon YY, ch HI et al. Novel use of Panduratin derivatives or extract of Kaempferia pandurata comprising the same. U.S. patent 0065272 Al, 2012 [cited 2016 Aug 05].
8. Michelle O' Sullivan, Turmeric is an effective homemade face pack ingredient to help open pores, Nov 2016 [cited 2016 Dec 13]. Available for:- http:// newswire.net / newsroom / pr100094136.
9. Best Benefits of Turmeric (Haldi) for skin, Hair and health- No.4 Is the Best Nov 2016 [cited 2016 Dec. 13] Available form:- http:// www.style craze.com / articles / turmeric –history – how to use-benefits.
10. Kumar R, komal. Formulation and Evaluation of herbal face pack. APhP 2021; 11(1). DOI: 10.5958/2231-5691.2021.00003.4
11. Maske AO, Pandhare M, Wanjari AD. International Journal Of Advance In Pharmaceutics. 2019. DOI:https://DOI.org/10.7439/ijap.v8i1.5184.
12. Buhse L, Kolinski R, Westenberger B, Wokovish A, Spencer J, chen CW et al. Topical drug classification. Int J Pharm 2005; 295: 101-112.
13. Mandeep S, Shalini's, Sukhbir LK, Ram ks, Rajendra J. Preapration and evaluation of Herbal cosmetics cream, Pharmacologyonline 2011; 1258-1264.
14. Rani SR and Hiremanth, Text book of Industrial pharmacy, Drug delivery system and cosmetic and Herbal drug Technology; Universities press (India) Ltd. 2nd edition,2002.
15. Dr. K.R. Khandelwal, Dr. Vrunda Sethi, Dr. Practical Pharmacognosy techniques and experiments practical, Pharmacognosy 2012 eddition, published by niraliprakashan, pg no. 23.8-23.10,25.5.
16. Lachmen L. Liberman HA, kanig JL. The theory and practice of Industrial Pharmacy 3rd ed.1987.
17. Aulton ME. Pharmaceutics. The Science of dosage form design 2nd ed. 2022.
18. Pal SR, pal Y, wal P. In House preparation and standardization of herbal face pack. TODJ 2017; 11, 72-80. DOI:10.2174/1874372201711010072.
19. Londhe SS, Bhosale MG, Joshi . Formulation and Evaluation of poly-herbal Face pack. Wjpmr 2020;6(7):159-165.