

Formulation and Evaluation of Herbal Face Pack (Coffee & Sandalwood) for Alluring Face

Somvanshi Akanksha A¹, Kasar Poonam S², Rajdev Purva S.³, Vidhate Prajwal G.⁴,
Gunjal Shubhangi S.⁵

Samarth Institute of Pharmacy, Belhe, Maharashtra, India^{1,3,4,5}

Department of Quality Assurance Technique, Samarth Institute of Pharmacy, Belhe, Maharashtra, India²

Abstract: *This The herbal face pack is made by using coffee, multani mitti, sandal wood powder, alovera, orange peel powder, neem powder, turmeric and solvent for this face pack is rosewater. The main ingredients in this face pack is coffee and sandalwood powder as well as the multani mitti is also plays an important role in this face pack. Coffee shows different benefits on face like reduce cellulites, anti- aging effect also treat the acne and removes dark spot from face as well as removes dark circles too. Sandalwood powder shows anti- tanning property and also shows skin softening effect as well as make the skin complexion clear. Multani mitti makes skin complexion bright and removes tanning and sunburns as well as removes dirt from pores and even out the skin tone of face make adorable skin. In ayurveda, the herbal paste is known as “mukha lepa” (Face pack) used for as a facial therapy. This herbal paste spread on face to treat acne, pimple, scars, marks and pigments. Face pack is the smooth powder which is used for facial application. The herbal face pack stimulates blood circulation and maintain the elasticity of skin and tightening the skin as well as removes dirt from the skin. The prepared face pack is evaluated in the different evaluation parameters like organoleptic evaluation, rheological evaluation, photochemical evaluation, physicochemical evaluation, washability, Stability studies and this all parameters shows result in limits. So we found the good properties of face pack.*

Keywords: *Alluring, Organoleptic, Rheological, Phytochemical, Physicochemical, Adorable.*

I. INTRODUCTION

In this century, all people want alluring and adorable look. We all want to be presentive look all the day so we apply different cosmetics on face. In day-today's life we use synthetic cosmetics and after long time that harm the skin. Because of cosmetics, pollution, dirt we all face many problems like acne, pimple, odd skin tone as well dark spots, allergic spots etc.

Cosmetics are commercially available products that are used to improve the appearance of the skin by action of cleansing. Beautifying, promoting attractiveness. In this era people are concerned about skin and healthy life so they use herbal products in day to day's life.








In ayurveda, the herbal paste is known as “mukha lepa” used for as a facial therapy. This herbal paste spread on face to treat acne, pimple, scars, marks and pigments. Face pack is the smooth powder which is used for facial application. Face pack gives tightening, strengthening and cleansing effect to the skin. Herbal face packs are helps to reduce wrinkles, pimples, acne and dark circles. Also increase the fairness and smoothness of skin. It also helps someone to boost their confidence.

1.1 Advantages of Face Pack

1. Nourishes the skin. As provide essential nutrients to skin.
2. Helps to reduce, acne, pimple, scars and marks from the skin.
3. Face packs usually remove dead cells of skin.
4. These face pack provide a soothing and relaxing effect on skin.
5. They help to restore the lost shine and glow of skin in short period of time.
6. Regular use of natural face pack bring glow to skin, improve skin texture and complexion.
7. Provide essential nutrients to skin and Nourishes the skin.

II. MATERIAL AND METHOD

Table 1: Material Table

Sr. no.	Name	Figure	Medical Use
1.	fuller's earth (multani mitti) <i>Calcium Bentonite</i> <i>Euphorbiaceae</i>	 Fig : 1 Multani mitti	Removes extra sebum and oil, cleanses skin by removing dirt and impurities. Evens out skin tone and brightens complexion.
2.	Coffee <i>Coffea Arabica</i> Rubiaceae	 Fig : 2 Coffee	Cellulite reduction. Calming effects., Anti-aging benefits. Reduced inflammation., Acne treatment, Dark circles, After-sun care.
3.	Sandal wood powder <i>Santalum album L.</i> Santalaceae	 Fig : 3 Sandal wood powder	Anti-tanning property. Anti-aging Property. Skin softening effect, Pimple and Acne treatment, Clear Complexion.
4.	Turmeric Powder <i>Curcuma longa L.,</i> Zingiberaceae	 Fig : 4 Turmeric	Antibacterial. antifungal, also adds glow to the skin
5.	Neem leaves <i>Azadirachta indica</i> <i>A.Juss.,</i> Meliaceae	 Fig : 5 Neem powder	Antibacterial, antifungal, anti septic.
6.	Orange peel powder <i>Citrus reticulata</i> Rutaceae	 Fig : 6 Orange peel powder	Anti-Allergenic. Anti-Inflammatory. Cleansing your skin and fighting acne.
7.	Aloevera powder <i>Aloe barbadensis</i> <i>Asphodelaceae</i>	 Fig : 7 Aloevera	Anti-inflammatory, Anti-microbial property protects the skin from the damaging effects of radiation therapy, cooling effect on rashes or sunburns.

8.	<p>Rose water <i>Rosa canina L</i> Rosaceae</p>	 <p>Fig :- 8 Rose water</p>	<p>Anti bacterial. It also have good amount of antioxidants. Helpful to get a radiant and glowing skin</p>
----	---	--	--

2.1 Formulation of Herbal Face Pack

Table 2: Formulation Table

Sr. No.	Name of Ingredients	Scientific name	Taken Quantity (For 50 gm)
1	Multani mitti (Fuller's earth)	<i>Calcium Bentonite</i>	15
2	Coffee	<i>Coffea Arabica</i>	10
3	Sandal Wood	<i>Santalum album L.</i>	7
4	Turmeric	<i>Curcuma longa L.,</i>	5
5	Neem	<i>Azadirachta indica A.Juss.,</i>	3
6	Orange Peel	<i>Citrus reticulate</i>	5
7	Aloe Vera	<i>Aloe barbadensis</i>	5
8	Rose Water	<i>Rosa canina L</i>	Q.S

2.2 Method of Preparation

Firstly for formulation of herbal face pack collect all the ingredients. Check their compatibility with each other. Weigh all ingredients accurately then ground all ingredients into fine powder by using sieve #80. All ingredients were mixed in motar pestle. Prepared face pack was packed in tightly closed container and labeled it.



Fig 9: Prepared Face pack

III.

IV. EVALUATION PARAMETERS

Different Method of Evaluation

- **Morphological Evaluation:** In that colour, odour, appearance, smoothness and texture are evaluated.
- **Physicochemical Evaluation:** In that pH, loss on drying and ash value are evaluated.

Phytochemical Evaluation:

Table 3: Phytochemical evaluation tests.

Sr. no.	Test	Test name	Procedure	Observations
1.	Carbohydrate	Barfoed's test	Barfroed's reagent + 2-3 ml of extract	Brick-Red precipitate.
2.	Alkaloid	Mayer's Test	2-3 ml of extract + few drops of Mayer's reagent.	Formation of precipitate.
3.	Glycoside	Legal's test	2-3 ml of extract + 1 ml pyridine + 1 ml nitroprusside	Red color develops.

4.	Tannins	5% FeCl ₃ solution	2-4 ml of extract + 5% FeCl ₃ solution	Blue color develops.
5.	Volatile oil	Sudan III	2-4 ml of extract + alcoholic solution of Sudan III	Red color develops.

Rheological Evaluation: In that flow property of face pack is checked by different methods like angle of repose, tapped density, bulk density, hausner's ratio and carr's index.

Washability: The formulation was applied on the skin and then ease and extent of washing with water were checked manually by using 1 litre of water is used to remove all content of the formulation were applied on the surface.

Stability Studies: The packed glass vials of formulation stored at different temperature conditions like, room temperature and 40°C and were evaluated for physical parameters like colour, odour, pH, consistency and feel.

Microbial Assay: The antibacterial activities of different formulations were determined by modified agar well diffusion method. In this method, nutrient agar plates were seeded with 0.2 ml of 24 h broth culture of *Escherichia coli* and *Pseudomonas aeruginosa* acausative organism for acne vulgaris. The agar plates were allowed to solidify. A sterile 8 mm borer was used to cut wells of equidistance in each of the plates. 0.5 ml of formulations, herbal extracts were introduced into the wells at randomly. The plates were incubated at 37°C for 24 hours. The antibacterial activities were evaluated by measuring the zones of inhibition (in mm)

V. RESULTS AND DISCUSSION

5.1 Organoleptic Evaluation Results

Table 4: Organoleptic evaluation test results

Sr. No.	Parameter	Observation
1	Color	Yellowish
2	Odor	Pleasant
3	Appearance	Free flowing powder
4	Texture	Fine
5	Smoothness	Smooth

5.2 Rheological Evaluation Results

Table 5: Rheological evaluation test results

Sr. No.	Parameter	Observation
1	Tapped Density	0.5714
2	Bulk Density	0.4712
3	Angle of Repose	30.837
4	Hausner's Ratio	1.200
5	Carr's Index	16.678

5.3 Physicochemical Evaluation Results

Table 6: Physicochemical evaluation test results

Sr. No.	Parameter	Observations
1	L.O.D	3.35 %
2	pH	6.93
3	Ash Value	2.45%

5.4 Phytochemical Evaluation Results

Table 7: Phytochemical Evaluation Test Results

Sr. No.	Parameter	Observations
1	Carbohydrates	Brick red precipitate
2	Alkaloids	No change.
3	Glycosides	Red color
4	Tannins	No change
5	Volatile oils	Red color

5.5 Washability Results

Table 8: Washability Test Result

Sr. No.	Parameter	Observation
1	Washability	Easily Washable

5.6 Stability Studies

Table 9: Stability Study Results

Sr. No.	Parameter	At Room Temperature	At 40 °C
1	Color	Yellowish	Yellowish
2	Odor	Pleasant	Pleasant
3	Texture	Fine	Fine
4	Smoothness	Smooth	Smooth
5	pH	6.9	6.87

5.7 Anti-Microbial Assay

Table 10: Anti-microbial assay results

Sr. no.	Bacteria	Zone of inhibition (in mm)
1	Escherichia coli	36 mm
2	Pseudomonas aeruginosa	35 mm

This prepared formulation of face pack is morphologically yellowish in colour pleasant in odour, smooth in appearance and fine in texture. This prepared formulation is stable at 40 °C, This passed the stability test. The flow property of this face pack is fair because angle of repose, carr's index and hausner's ratio are in standard limits. In this face pack glycoside, carbohydrates and volatile oil are present. pH is neutral so it suits all skin types. All evaluation tests like morphological, rheological, stability studies, microbial assay, washability, physicochemical, phytochemical evaluation test result are in limits. So this present work is good.

VI. CONCLUSION

The Herbal face packs are considered as sustaining and productive way to advance the appearance of skin. Herbal face packs are used to stimulate blood circulation, rejuvenates those muscles and help to maintain the elasticity of the face and remove dirt and excess oil from skin pores. Thus, in the present work, it is a very good attempt to formulate the herbal face pack containing herbal ingredients like Multani mitti, turmeric, aloe vera, sandalwood, orange peel, neem, coffee, rosewater. In this prepared face pack coffee, multani mitti and aloe vera are main ingredient. This prepared formulation of face pack is morphologically yellowish in colour pleasant in odour, smooth in appearance and fine in texture. This prepared formulation is stable at 40 °C, This passed the stability test. The flow property of this face pack is fair because angle of repose, carr's index and hausner's ratio are in standard limits. In this face pack glycoside, carbohydrates and volatile oil are present. pH is neutral so it suits all skin types. All evaluation tests like morphological, rheological, stability studies, washability, physicochemical, phytochemical evaluation test result are in limits. So this present work is good.

ACKNOWLEDGMENT

Authors take it as a privilege to sincerely express my gratitude to Dr. Subhash Kumbhar, Principal, Samarth Institute of Pharmacy, Belhe for providing project amenities and permission to carry out this work. The authors are also thankful to respected Ms. Poonam kasar (QAT), for her valuable guidance, support and encouragement.

REFERENCES

- [1]. Sachin Somwanshi & Ramdas Dolas, Formulation and evaluation of cosmetic herbal face pack for glowing skin, Article in International Journal of Research in Ayurveda and Pharmacy August 2017
- [2]. Rashmi Saxena Pal & Yogendra Pal, et al., In-House Preparation and Standardization of Herbal Face Pack, The Open Dermatology Journal, 2017, 11, 72-80.
- [3]. Mr. K.G Bhutkar & Mrs. M. Shah, Formulation and evolution of herbal antibacterial face pack article, May 2019 JETIR May 2019, Volume 6, Issue 5 www.jetir.org (ISSN-2349-5162).
- [4]. Ravi Kumar, Komal. Formulation and Evaluation of Herbal face Pack. Asian J. Pharm. Res. 2021; 11(1):9-12
- [5]. Rakesh K Sindhu et al. formulation development and standardization of herbal face pack.
- [6]. Gediya, S.K. et al., 2011. Herbal Plants : Used as a cosmetic. Journal of Natural product and Plant Resources., 1(1), pp.24–32
- [7]. Millikan, Larry E. Cosmetology, Cosmetics, Cosmeceuticals: Definitions and Regulations. ClinDermatol, 2001; 19(4):371-374.
- [8]. Koli DS, Mane AN, Kumbhar VM, Shaha KS. Formulation & Evaluation of Herbal Anti-Acne Face Wash. World J Pharm Sci 2016; 5(6): 2001-2007.
- [9]. Farheen B, Mohammad I. Design and Development of Unani Face Pack for Skincare. European J Pharm Med Res 2016; 3(12): 627-632.
- [10]. Khandelwal KR. Practical Pharmacognosy 12th ed. 2004.
- [11]. Banchhor M, Ashawat MS, Saraf S. Herbal cosmetics: Trends in Skin Care Formulation. Pharmacogn Reviews 2009; 3(5): 82-89.
- [12]. Singh M, Sharma S, Khokra SL, Sahu RK, Jangde R. Preparation and evaluation of herbal cosmetic cream. Pharmacologyonline. 2011; 2:1258-64.
- [13]. Swati Siddheshwar Londhe, et al., Formulation and evaluation of polyherbal face pack, World journal of pharmaceutical and medical research, 2020, 159-165.
- [14]. Manish Kamble, et al., Formulation & Evaluation of Anti-acne face wash gel using Guava seed extract, Journal of drug delivery & therapeutics, vol – 9, 2019.
- [15]. Bhavika Ramtekkar, et al., Preparation and Evaluation of Polyherbal Face Pack as a Cosmetic, IJPPR, January 2021 Vol.:20, Issue:2.
- [16]. Swati Siddheshwar Londhe, et al., Formulation and evaluation of polyherbal face pack, World journal of pharmaceutical and medical research, 2020, 159-165.
- [17]. Manish Kamble, et al., Formulation & Evaluation of Anti-acne face wash gel using Guava seed extract, Journal of drug delivery & therapeutics, vol – 9, 2019.
- [18]. Bhavika Ramtekkar, et al., Preparation and Evaluation of Polyherbal Face Pack as a Cosmetic, IJPPR, January 2021 Vol.:20, Issue:2.
- [19]. Best Benefits of Turmeric (Haldi) For Skin, Hair, And Health-No.4 Is the Best Nov 2016[cite 2016 Dec 13], Available from: <http://www.stylecraze.com/articles/turmerichistory- how-to use-benefits>.
- [20]. Rajeswari R, Umadevi M, Rahale CS, Pushpa R, Selvavenkadesh S, Sampath Kumar KP, Bhowmik D. Aloe vera: The Miracle Plant Its Medicinal and Traditional Uses in India. J Pharmacogn Phytochem 2012; 1(4): 118-124.
- [21]. Nemade CT, Baste N. Formulation and evaluation of a herbal facial scrub. World J Pharm Res 2014; 3(3): 4367-4371.
- [22]. Himaja N, Ashok kumar A, Bhart kumar B. Preparation and Evaluation of Poly Herbal Fruit Face Mask. J Res Pharm Sci 2015; 2(11): 07-13.