

FORMULATIONS AND EVALUATION OF HERBAL WET FACE PACK

Shweta .V. Nagawade, Pooja .S. Kashid , Mohini .B. Yadav, Swapnil .S. Shingade

Navsahyadri Institute of Pharmacy, Naigaon, Nasarapur, Pune.

Author Email Id :- shwetanagawade0107@gmail.com

ABSTRACT :- The objective of this work to formulate and evaluate herbal wet face pack by using ingredients like turmeric, Sandal Wood, Rose Petal Powder, Nutmeg Powder, Orange Peel powder etc. This ingredients are weigh accurately and mixed geometrically to uniform formulations and then evaluated for following parameters like Physicochemical properties, Organoleptic parameter, Irritancy test along with stability formulations. We can formulate herbal wet face pack by using easily available ingredients. After evaluation we analyze that good properties for face pack free from skin irritation. The main advantage of herbal products that is pure does not have any adverse effects on human body . The face pack has natural skin lightning properties can easily prepared at home. Herbal face pack provide nutrients to the skin.

KEY WORD :-

Herbal face pack, Natural, Skin , Formulation, Evaluation

INTRODUCTION:-

Currently a days, The Herbs are widely utilized as remedial vendors because herbs are handily convenient at slightly costly. ^[1] Cosmetics are commercially accessible products that are utilized to enhance the aspect of the skin by effort of cleaning, beautifying, improving and attractiveness. ^[2] This herbal paste massaged on face to treat acne, pimples, scars ,mask and pigments. ^[3] Face Pack utilized in ayurveda benefits to decrease wrinkles, pimples, acne and dark circles. ^[4] Natural face packs are slightly improving fresh simple to utilize. Impact of face pack commonly short and for normal shine it should be utilized 2-3 times a week. ^[5] The natural face pack include some essential vitamin that are needed for the health and glowing skin.^[4] Cosmetic are commercially usable product that are utilized to enhance character of the skin by effort of cleansing, beautifying and to manage them.^[3]

MATERIAL AND METHODS :-

MATERIALS :-

1.Multani mitti (Calcium bentonite) :-

Synonyms:- Multan clay

Description:- Colour :- White

Odour :- Pleasant

Taste. :- Pleasant ^[6]

Chemical Constituent :- Montmorillonite [(Mg,Ca) O.₃Al₂O₃.5SiO₂.nH₂O] , Kaolinite.^[7]

Uses :-1. Nourishes skin , Reduce oiliness , Remove blackheads . ^[6]

2. Multani mitti benefit the skin by several ways like decreasing pore sizes, eliminating blackheads, Whiteheads fading freckles, relieving sunburns , purification skin , enhancing blood circulation, complexion , decreasing acne, scars and provides a shining outcome to skin as they include healthy nutrients. ^[8]

2. Turmeric (Curcuma longa) :-

Synonyms:- Curcuma longa, Indian saffron

Description:- Colour :- yellowish orange to orange

Odour :- Aromatic

Taste :- Bitter

Chemical Constituent :- Volatile Oil, resin , sufficient zingiberaceous ,Turmerone , zingiberene , borneol , caprylic acid .^[9]

Uses :- 1. Turmeric is utilized as a antiseptic, expellant a gravies or spice and coloring agent. ^[11]

3. Aloe Vera (Aloe barbadensis) :-

Synonyms:- Aloe

Family :- Liliaceae

Description :- Colour :- It is shady brown, brownish black or black in colour.

Odour :- Characteristics

Taste:- Intensely bitter and disgusting

Chemical Constituents :- Barbolin , resin and aloe – emodin. Isobarbalin is living in Curaco and Caps aloes.

Uses:- 1. It is utilized as a irritant purgative.

4.Sandalwood (Santalum alba) :-

Synonym:- Yellow Sandal Wood, Lignum santali

Family:- Santalaceae

Description :- Colour:- Yellowish or pale reddish

Odour:- Strong and fragrant

Taste :- Slightly bitter

Chemical Constituent:- alpha – santol and beta - santol . The oil further includes an aldehydes santalal , Santene, santenone , teresantol.

Uses:- 1. The Sandal wood oil is utilized for symptomatic therapy of dysurea and in reducing the regularity of micturition noted in tuberculosis of the bladder. ^[9]

2. It also has anti – acne effects ^[10]

5. Rose Petal Powder (Rosa indica) :-

Synonyms:- Rosa gallica

Family:- Rosaceae

Chemical Constituent :- It contains volatile oil that contains of citronellol, geranic acid, geraniol, nerol, and additional terpenes .

Uses :- 1. Rose Petal and their preparation attar of rose is utilized in aromatherapy as anti-inflammatory treatment.^[12]

2. It can be utilized as a favorable laxative. Relieve discomfort, toothache, stomatitis, Reimbursement the lungs, kidney and liver. It is further reheat of the body, chronic fever, rash and intestinal affection.^[13]

6. Nutmeg (*Myristica fragrans*) :-

Synonyms :- Myristica, Nux Moschata

Family:- Myristicaceae

Description :- Colour:- Externally, the kernels are greenish – brown or brown.

Odour:- Strongly aromatic

Taste:- Pungent and aromatic

Chemical Constituent :- The Volatile Oil approximately 4 to 8 % myristicin, elemicin and saffrole. The fatty acid constituent of the fixed oil are myristic (about 60 %), palmitic, oleic, Lauric and different acids. Geraniol, terpineol, camphene etc are the different constituent of volatile oil of nutmeg.

Uses :- 1. It is utilized as a pungent, stimulant and carminative. It is utilized as a flavoring agent, too.^[9]

7. Orange Peel Powder (*Citrus Aurantium Dulcis*) :-

Synonym :- Orange zest

Family:- Rutaceae

Description :- Colour:- Dark orange red

Odour:- Aromatic

Taste :- Bitter

Chemical Constituent:- Terpenes, Carotenoids, Flavonoids etc.

Uses :- 1. Eliminate skin marks and skin spots, Assist to skin whitening.^[6]

2. Orange Peel Powder possess anti-oxidative, anti-inflammatory, anticancer, anti-bacterial actions. It is a chemopreventive tool with probable qualities as Dietary anti-cancer agents.^[14]

METHODOLOGY :-

1. Collection of all ingredients like Multani mitti, Turmeric, Aloe vera, Sandal Wood, Rose Petal Powder, Nutmeg Powder, Orange Peel powder, etc from local market, Chemical like methyl cellulose, distilled water, Bentonite, Propylene glycol, Sodium lauryl sulphate, Methyl paraben from pharmaceuticals department lab from Navsahyadri Institute of Pharmacy college, Pune.

2. Formulation of face pack:- All powders like Multani mitti, Turmeric, Sandal Wood, Rose Petal Powder, Nutmeg Powder, Orange Peel powder are added into distilled water (quantity sufficient). The bentonite needs to be hydrated in water prior to addition of other ingredients. So bentonite is added. Methyl cellulose added as thickener and Propylene glycol are added as humectants or sifted slowly to avoid the formation of aggregates. Mix until uniform then added the sodium lauryl sulphate as surfactant and methyl paraben as preservative.

3. Evaluation of herbal face pack:-

1. Organoleptic Evaluation:- The Organoleptic parameter contain nature, color, Odor, feel and consistency existed analyzed manually for its physical properties. The smooth and fine character of the face pack. The colour of the face pack was slight yellow. The texture of the formulation was fine. The odor of prepared formulations was pleasant. The Smoothness was smooth of desirable cosmetic formulations.^[15]

2. Physicochemical Evaluation:- Physicochemical parameter were specified containing PH determination and moisture content.^[16]

PH Determination:- It measurement acidity and alkalinity of products on scale 0-14. PH can be determined by using digital PH Meter. Prepare the solution of face pack probe which deep into this solution. PH of the solution was found to be 7.13.

Moisture content:- Moisture content was determined loss on drying. Weigh accurately 3 gm of sample transfer it into petriplate placed it into hot air oven at 100-108°C. It was weighed until constant weighed determined.^[17]

3. Spreadability test :- Spreadability of developed cream was assessed by setting samples in between two slides then reduced to uniform consistency by spotting specified period. The specified period needed to distinguish the two slide was assessed as spreadability. Minor the period brought for the division of the two slides the outcome exhibited favorable spreadability. Spreadability was evaluated by following formula

Spreadability (S) = Weight tied to upper slide (W) × Length of glass slide (L) ÷ Time taken to separate slide^[18]

4. Stability test:- Stability testing of ready formulations was performed by reserving at various temperature circumstances for the time of one month. The intervals of glass vials formulations reserve at various temperature circumstances like room temperature like 35°C & 40°C were analyzed like physical parameters like color, Odor, PH, Consistency and feel.^[19]

5. Antimicrobial evaluation :- Formulation was examined by antibacterial activity against test organisms recently staphylococcus aureus lived achieved from the pharmaceutical Microbiology lab. In this method prepared Nutrient agar by using autoclave method and agar poured into the plate. Formulations ready was varied with necessary amount of distilled water and emitted it in wells. Then inoculate the S.aureus bacteria into plate. Incubate it into incubator for 48 hrs. Then standard conditions of antibacterial activity was analyzed by assessing the diameter of zone of inhibition (mm) including cup size.^[20]

RESULTS :-

1. Organoleptic Evaluation:- Face Pack was ready analyzed for Organoleptic parameter indicated in Table no :-1.

Table 1 :- Organoleptic Properties

Sr.No	Parameters	Observations
1.	Appearance	Smooth, Fine
2.	Colour	Slight yellow
3.	Texture	Fine
4.	Odour	Pleasant
5.	Smoothness	Smooth

Physicochemical Evaluation:- Face Pack was analyzed for Physicochemical parameter showed in Table no:-2

Table 2 :- Physicochemical Evaluation

Sr.No	Parameter	Observations
1.	PH	7.13
2.	Moisture content	3.0

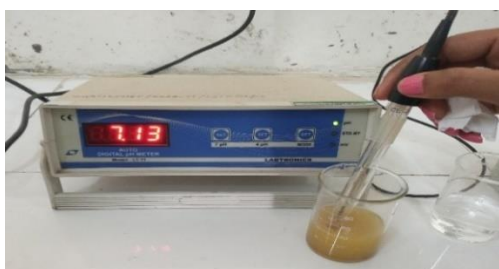


Figure No 1 :- PH Determination



Before



After

Figure No 2 :- Moisture Contents

3. **Spreadability test :-** The results of spreadability test was exhibited in Table :3

Table 3:- Spreadability test

Sr.No	Parameter	Observations
1.	Spreadability test	4.6 g . cm/cm

Figure No 3:- Spreadability test



4. **Stability Studies :-** The results of stability studies test was exhibited in Table :- 4

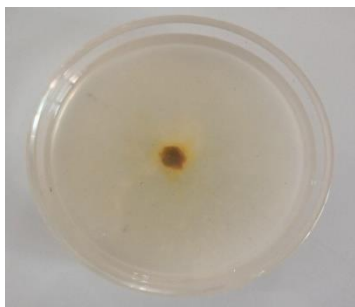
Table 4 :- Parameter of Stability study of formulation

Sr No	Parameter	Observations		
		Room temperature		
			35°C	40°C
1.	Colour	No change	No change	No change
2.	Odour	No change	No change	No change
3.	PH	7.13	7.07	6.96
4.	Texture	Fine	Fine	Fine
5.	Smoothness	Smooth	Smooth	Smooth

5. **Antimicrobial evaluation:-** The effects of antimicrobial evaluation was exhibited in Table :5.

Table 5:- Antimicrobial evaluation

Sr.No	Bacteria	Zone of Inhibition formulations (mm)
1.	Staphylococcus aureus	14 mm



Before



After

Figure No 4 :- Antimicrobial Evaluation

DISCUSSION :-

Herbal face pack are used to stimulate blood circulation, rejuvenate the muscle. Helps to maintain elasticity of skin and remove dirt from skin pores . The advantage of Herbal face pack non toxic in nature reduce allergic reactions. The colour of the formulation face pack is slightly-yellow colour had semi-solid consistency. The odor of prepared formulations was pleasant. Smooth and fine characters are present in formulations. Formulation was found to be neutral. The moisture content was within limit. The stability studies indicated little differences in PH formulations was reserved at 40°C and no differences examined at room temperature and 35°C. There was no difference in colour and odour at different mentioned situations of stability test .

ACKNOWLEDGEMENT :-

The author are thankful to college of Navsahyadri institute of pharmacy, Naigaon, Nasarapur Pune. To providing necessary facilities to carried out this work.

REFERENCES :-

- 1.Ravi Kumar, Komal , Research paper of formulations and evaluation of herbal face pack. Asian Journal of Pharmaceutical Research, 2021.
2. Swati Siddheshwar Londhe , Mangesh Gautam Bhosale & Amol Arjun Joshi ,Research paper of Formulation and Evaluation of Polyherbal face pack. World Journal of pharmaceutical and medical research ,2020 (7),159-165.
3. Sachin B Somwanshi , Kiran S Kudale , Ramdas T Dolas, Kiran B Kotade , Research Paper of Formulation and Evaluation of Cosmetic Herbal

Face Pack for Glowing Skin. International Journal Research Ayurveda Pharm.8 (suppl 3),2017.

4. X-Fatima Grace , R Joan Vijetha , S Shanmuganathan , D Chamundeswari , Research Paper of Preparation and Evaluation of Herbal Face Pack. Advanced Journal Pharm Life Science Research, 2014 ,2;3 1-6.

- 5.Mr.K. G. Bhutkar , Mrs. M Shah , Research Paper of Formulation and Evaluation of Herbal Antibacterial Face Pack. Journal of Emerging Technologies and Innovation Research May2019,Volume 6.

6. Dhanshri N. Pawar , Arti P. Pawar , Yogita V. Dalvi , Research Paper of formulation and evaluation of herbal scrub gel , Research J Topical and Cosmetics Sci. 10 (1) : 13-18.

7. Pramod Kumar , Research Paper of Multani Mitti – Is it more than placebo .? Journal of Pakistan Association of Dermatology October 2019 ; 29 (3) ,345-348 .

8. Naeem, Rafia Rehman, Ayesha mushtaq, Jihene Ben .Research paper of Nutmeg : A review on uses and biological properties International Journal of Chemical and Biological Sciences 2016,107 – 110.

9. S. B. Gokhale , C.K .Kokate , A.P.Purohit , A textbook of Pharmacognosy , Thirty Eight edition , published by Nirali Prakashan.

- 10.Bhattacharjee Rajsmitta and Vinay Keshavmurthya . Research paper of rediscovering Sandal wood : Beyond Beauty and Fragrance. Indian Dermatol online J.2019 May-Jun ;10 (3) : 296-297 .

11. Hima Gopinath , Kaliaperumal karhikeyun, Research Paper of Turmeric : A condiment cosmetic and care .Indian Journal of Dermatology ,venereology and Leprology Jan – Feb 2018 , Volume 84.

12. Rehman Ullah Khan , Sultan Mehmood , Sikandar Khan Sherwani , Saad Ullah Khan , Ariz Khan , Ihsan Ullah, Khuram Khan and Inam Ali Shahi . Research paper of study of chemical constituent and medicinal uses of ornamental species of District Bannu . World Journal of Science 2013,1 (3) : 178 – 198 .

- 13.Koli D.S . Mane A.N ,Kumbhar V.M . Saha K.S. Formulation and Evaluation of Herbal anti – acne face wash . World J Pharm Sci 2016 ;5 (6) : 2001-2007.

14. E.M Spene, J.D Jordan , J Wetmore, S.Freeman , D. J. Picked, L.A and Serratore P. Research paper of HDL- Cholesterol raising effects of orange juice in subject with hypercholesterolemia . American J.Clin . Nutr , 72 (5) : 1095- 1100.

15. Bhuse L,Kolinski R , Western berger B , Wokovish A, Spencer J. Research paper of Topical Drugs Classification. Int J Pharm 2005 ; 295 : 101-112.

16. Avinash .O. Maske Manisha Pandhare, Ashwin . D.Wanjari , Research Paper of Formulation and Evaluation of Herbal Face Pack for Glowing Skin.

International Journal of Advances in Pharmaceutics
2019;08 (01):e5184.

17. Ramkrishna .S, Gopikrishna .UV , Research
paper of Formulation and Evaluation of Herbal Face
Pack .Journal of Emerging Technologies and
Innovative Research 2021; Vol-8, Issue-12.

18. Chanrashekar B. Badwaik, Updesh. B.Lade ,
Tikseh Agarwal ,Prachi Barsagde , Madhuri
Nandgave, Nilam Guddamwar . Research paper of
Formulation and Evaluation of Herbal Face Cream.
International Journal of Pharmaceutical Research
and Applications, Jan – Feb 2022, Volume 7.

19. Sachin Bhagwat Aglawe, Amol Uttamrao
Gayke, Suraj Anil Mindhe , Varsha Gajanan Rane.
Research paper of Formulation and Evaluation of
Herbal Face Pack. International Journal of
Pharmacy and Biological Sciences , Oct – Dec 2018 ,
49 -52 .

20. Anilkumar V, Kalyani R , Padmasri B, Prasanth
D. Research Paper of Preparation, development and
evaluation of herbal cosmetic Pack. Journal of Drug
Delivery and Therapeutics, 2020; 10 .