

Formulation & Evaluation of Turmeric Based Herbal Face Pack

Khade Ankita Dadasaheb, Asst. Prof. Nagargoje. P. S, Dr. K. P. Surwase

Kishori College of Pharmacy, Beed, Maharashtra, India

Abstract: Herbal products are free of all dangerous synthetic chemicals that have been shown to be detrimental to human skin. In herbal products, various plant components and extracts are utilised. Additionally, they contain organic elements including vitamins and minerals that keep skin young-looking, radiant, and shiny. Various advantages are there of herbal over the cosmetic is that there is a requirement of the preservative in synthetic and there is no need of preservatives in the herbal products. Herbal product is extracted from the herbs and shrubs where the synthetic one is mainly made up of the different types of polymer and various chemical reaction which cause damage to the skin. Herbal product is not used on the various animal but the synthetic product are tested on the animal. Herbal product are used on the various types of the skin like acne skin, pores skin etc. But synthetic product are not compatible with all the skin. The main intention of herbal facepack is a glowing skin, it reduces tanin, increases glow of a skin, reduces dark circle, increases fairness. Various ingredients were used to formulate the herbal facepack such as the turmeric, neem powder, multani mitti, gram flour, rice flour and rose water. The main goal of this work is to create and assess a face pack utilising natural substances that stimulate blood flow, revitalise muscles, help maintain skin elasticity, and trap dirt and pollutants in skin pores. Different evaluation studies were performed such as the morphological evaluation, physiochemical evaluation, physical evaluation, irritancy test and stability studies was performed. Ingredient which are used as taken from market in the form of dried powder. The quantity was made of 20mg. Herbal powder was passed through using sieve no – 150. Sandalwood and multani mitti mitti was taken from the market and remaining were as household

Keywords: Herbal Facepack, ingridents, evaluation studies, skin and advantages of herbal over synthetic.

I. INTRODUCTION

Herbal face pack are the agent which are applied on the skin for giving the smoothing effect, glowing effect, reduce dark spot, reduce acne and also reduce the oiliness of the skin as well as the pimples present in the skin. Face pack is the smooth powder which is utilized for facial application. These arrangements are applied on the face as fluid or glues and permitted to dry and set to frame film giving fixing, reinforcing and purging impact to the skin.

The glow and fixing impact created by utilization of face pack. The warmth and fixing impact delivered by use of face pack creates the invigorating impression of a revived face, while the colloidal and adsorption muds utilized in these arrangements eliminate the soil and oil from the skin of the face.[3] At the point when the applied face pack is at last taken out skin flotsam and jetsam and stored soil gets eliminated with it uses the invigorating vibe of a revived face, while the colloidal and adsorption muds utilized in these arrangements eliminate the soil and oil from the skin of the face.

At the point when the applied face pack is at last taken out skin garbage and saved soil gets eliminated with it. Face pack with normal constituents are plentiful in crucial nutrients that are fundamental for the wellbeing and gleam of the skin. These substances have been shown to be useful for skin in numerous ways. Normal facial packs are not difficult to utilize.

They increment the flow of the blood inside the veins of the face, in this manner expanding the exuberance of the skin. A decent home-grown face pack should supply vital supplements to the skin, accessible as free-streaming powder.



These days various sorts of packs are accessible independently for the slick, ordinary and dry skin. Face packs are utilized to expand the reasonableness and perfection of the skin. It decreases wrinkles, pimples, skin inflammation and dark circles of the skin.

These formulations are applied on the face as fluid or glues and permitted to dry and set to shape film giving fixing, reinforcing and purging impact to the skin.[10] Home constructed natural face packs and covers clear a path for smooth, brilliant and silky skin. In ayurveda, the home grown facepack applied on face to treat acne, pimple, scars, stamps and colors are known as "mukha lepa". Mukha lepana is the most common way of spreading a natural blend on face. This treatment is presently famously named as facial.[11]

LITERATURE REVIEW

1) Ashawat MS et al., 2009- Cosmetics are used nearly universally to improve appearance in a variety of ways. Cosmetics are designed to minimize wrinkles, combat acne, and regulate oil production. Skin protection, sunscreen, anti-acne, anti-wrinkle, and anti-aging compositions are created with a variety of natural and synthetic components for many sorts of skin disorders. The creation of cosmetic formulations necessitates the upkeep of a high quality level. In terms of performance, the quality of a formulation should meet the needs of the customer. Herbs used in cosmetics contain a wide range of qualities, including antioxidants, anti-inflammatory, antiseptic, and antibacterial capabilities.

2. Yamini K et al., 2013- Acne vulgaris is a very prevalent skin ailment (pilosebaceous unit) that affects almost everyone at some point in their lives. Acne is most common among teenagers, but it also affects a significant number of men and women between the ages of 20 and 30. Comedonal, papular, pustular, cystic, and nodular acne are the different types of acne.

3. Somwanshi SB et al., 2017- Cosmetics are over-the-counter cosmetics that are intended to improve the look of the skin by washing, beautifying, and enhancing attractiveness. Herbs have been utilised for cleansing, beautifying, and managing them since ancient times. The skin of the face is the most visible portion of the body, and it reveals a person's overall health. Face pack is a fine powder or paste that is used to apply makeup to the face. These preparations are applied to the face as liquids or pastes, and then allowed to dry and harden into a film that tightens, strengthens, and cleanses the skin.

4. Koli DS et al., 2016- Comedonal, popular, pustular, cystic, and nodular acne are the different types of acne. Non-inflammatory comedonal acne is separated into two types: whiteheads and blackheads (Closed comedo). White heads appear as fresh or white-colored elevated lumps, but open comedones (blackheads) appear as open pores harbouring dark-colored skin roughage made up of melanin, oil, and follicular cells.

6) Bhutkar KG et al., 2019- Everyone aspires to have fair and attractive skin. Acne, blackheads, pimples, and dark circles are all too frequent among

today's youth and those who suffer from it. Skin disorders are usually caused by blood pollutants, according to Ayurveda. Skin illnesses are caused by toxins accumulating in the bloodstream as a result of poor diet and lifestyle choices. Ayurveda describes a variety of plants and remedies for blood cleansing.

AIM & OBJECTIVE :

AIM

The production and assessment of a herbal face pack for beautiful skin with natural ingredients like turmeric, neem powder, multani mitti, sandalwood, milk powder, gram flour and rose water. The sandalwood and multani mitti was taken from the market and remaining was used as household.

OBJECTIVE

- For the preparation of herbal face pack there is simple method which is used as follows
- Weigh all the ingredients properly according to the quantity.
- Mix all the ingredient properly.
- Pass all the ingredients through the sieve no 150.
- Transfer the powder to the sachets.



PLAN OF WORK :

To achieve the objective the following plan of work was made.

Phytochemical profile of Drug



Procedure of herbal face pack



Conclusion



Result



Reference

PHYTOCHEMICAL PROFILE OF DRUG :

A) Multani mitti



Fig.no.1

Scientific Name- Fullers earth

Synonyms- Multani Mitti

Chemical Constituents- Silica, iron oxide, and water

Uses- Remove tannin Reduces pore size

Multani mitti benefits in a variety of ways, including by decreasing pore size, eliminating blackheads and whiteheads, reducing marks, relieving sunburns, washing skin, enhancing blood circulation, improving complexion, and minimising breakouts and acne. They also provide the appearance of bright skin since they are rich in vital nutrients. Magnesium chloride is abundant in Multani mitti.

B) Turmeric Powder



Fig.no.2

Scientific Name- Curcuma longa

Synonyms- Turmeric root, Wild Curcuma

Chemical constituent- Curcumin I, Curcumin II, III, dihydrocurcumin, 3-6% polyphenolic compounds, curcuminoids, Demethoxy curcumin and bisdemethoxycurcumin.

Uses- Antibacterial



Antifungal Wound healing Glow Skin Reduce irritation Reduce Swelling

The major purpose of turmeric is to refresh the skin. In addition to having antibacterial, antimicrobial, and anti-inflammatory qualities, it delays the appearance of wrinkles. The best blood purifiers are found here. Due to its antiseptic and antibacterial characteristics, which combat breakouts and pimples to give skin a youthful appearance, it is beneficial in the treatment of acne and shine your skin. Additionally, it decreases the sebaceous gland's oil production.

C) Sandalwood Powder



Fig.no.3

Scientific Name- Santalum Alba

Synonyms- Sandal, Indian sandal wood oil

Chemical Constituents- 90% Sesquiterpene alcohols of which 50-60% is the tricyclic alpha- santalol, betasantalol comprises 20-25%.

Uses- Increases the glow Reduce the dark circle Reduces dark spots Act as wound healing Used as antiseptic Anti-aging and anti-tanning properties can be found in sandalwood. Numerous other benefits include its emollient, antibacterial, cooling, astringent, relaxing, and therapeutic properties, as well as its toning and healing effects.

D) Neem Powder :

Incense, cosmetics, perfumes, and soaps frequently use sandalwood oil as a fragrance because of its warm, woody aroma. It is also used to flavour dishes and drinks. Due to its density, the wood has been prized for carving.



Fig.no.4

Scientific Name- Azadirachta indica

Synonym- Nimtree, Indian lilac

Chemical Constituent- Leaves contain ingredients such as nimbin, nimbanene, 6- desacetylnimbinene, nimbandiol, nimbolide, ascorbic acid, n-hexacosanol and amino acid, 7- desacetyl-7-benzoylazadiradione, 7-desacetyl-7-benzoylgedunin, 17-hydroxyazadiradione, and nimbiol.

Uses- Reduces the dark spots Reduces ageing effect

Copyright to IJARSCT
www.ijarsct.co.in



DOI: 10.48175/IJARSCT-27346



Reduces the pores It act as detanin

Neem has antibacterial, anti-inflammatory, and antiseptic properties that make it excellent for oily and acne-prone skin.

Due to the antioxidant, anti-inflammatory, and anti-microbial properties of several phyto-constituents.

E) Milk Powder



Fig.no.5

Scientific Name-

Synonym- Dehydrated milk

Chemical Constituent- 26% fat (minimum), 34% protein (minimum), 5% moisture (maximum) 0.18% acidity (maximum), 34% lactose (minimum), 7.3% ash (maximum) and 6.6-6.8 PH on dry-matter basis.

Uses- Makes the skin smooth Makes the skin soft Make the skin nourishesIncreases the glow Because milk powder nourishes dry, rough skin for a longer period of time, it is particularly good for the skin. Skin gets a dazzling shine from milk cream, whether it comes from milk as such or powdered raw milk. Deep facial hydration from this is advantageous for maintaining youthful, glossy, flawless skin. It bleaches the skin to get rid of things like acne, pigmentation, and dark spots. Additionally, this kit naturally gets rid of whiteheads, blackheads, and other skin flaws. This face pack aids in sunburn removal.

F) Gram Flour



Fig.no.6

Scientific Name- Cicer arietinum L

Synonym- Chicken pea flour

Chemical Constituents- 11.2% moisture, 22.5% protein, 5.2% fat, and 58.9% carbohydrate. Uses- Reduces the oil Dehydrate the skin Moisturize the Skin Increases the glow Increases the fairness Reduces the dark circle

Gram flour's high zinc concentration will aid in the fight against acne-causing infections. Dead skin is removed, and it is astringent and protecting.



G) Rice flour



Fig.no.7

Scientific Name- Oryza Sativa

Synonym- Rice Powder

Chemical Constituent- 71–91% starch, 7–11% protein, 0.87–8.10% lipid and 0.46–1.10% ash [25–26].

Uses- It is used as for glowing

It protects the skin from sunlight It acts as exfoliates to your skin It produces cooling effect to skin You can apply rice flour to the skin to treat several skin conditions. Doctors who practice Ayurveda in the Indian subcontinent properly recommend rice water in its undigested state. It promotes the development of beneficial bacteria for regular bowel motions and works as a powerful ointment to soothe sensitive skin surfaces.

FORMULATION TABLE :

Table.No.1:

sr.no	Ingredient	Quantity
1	Turmeric powder	10gm
2	Multani Mitti	5gm
3	sandalwood powder	5gm
4	Neem powder	10gm
5	Milk powder	3gm
6	Rice flour	2gm
7	gram flour	5gm
8	Rose water	q.s

PROCEDURE OF HERBAL FACEPACK :

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 No.1. **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, 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 parame

- For the preparation of herbal face pack there is simple method is used as follows
- Weigh all the ingredients properly according to the quantity.
- Mix all the ingredient properly.
- Pass all the ingredients through the sieve no 150.
- Transfer the powder to the sachets.
- How to apply face pack

Take the 5 gm of the face pack powder into the bowl and add 1 table spoon of rose water. Mixit well and apply to the face pack and wait for 15-20 minutes, after that rinse the facewash withthe water.



Final Product of Herbal Face Pack :



Fig.No.8 Final Product

EXPERIMENTAL WORK :

Physical characterization

- Colour
- Odour
- Appearance
- Texture
- Smoothness

Flow properties

- Tapped density
- Bulk density
- Angle of repose
- Hausner ratio
- Irritancy test
- Washability
- PH test
- Stability test

Physical characterization :

Physical parameters such as colour, odour, appearance, and texture were checked visually.[16]

Colour: light brown Odour: Aromatic Appearance: smooth & fine Texture: Fine

Smoothness: smooth.

Flow properties:

Tapped density: Tapped density is an increased bulk density attained after mechanically tapping a container containing the powder sample.

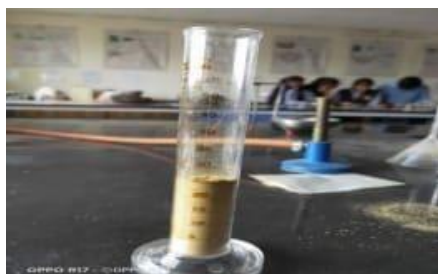


Fig.no.9



Bulked density: bulk density is the ratio between the given mass of powder and its bulk volume. It is the most important parameter test to carry out the property of the powder as it is used to check the bulk amount of the powder.



Fig.no.10

Angle of repose: It is defined as the maximum angle possible in between the surface of pile of powder to the horizontal flow. This is most important method as it gives the actual result that your powder is having the excellent flow or not having the excellent flow this method is mainly depend upon the angle of the powder as the angle of the pile increases there is decrease in flow property.

Irritancy test:

Mark an area on the left -handed dorsal surface. Definite quantities of prepared face pack were applied to the specified area and time was noted. Irritancy, erythematic, edema was checked if any for regular - interval upto 24 hours and reported.



Fig.no.11

Wash ability test: This is the common method for checking the wash ability of the formulation. The formulation is applied on the skin by making the area of the 1cm on the skin and then ease and extend of washing is done with the help of the water .



Fig.no.12

PH test: pH of 1% aqueous of the formulation was by using a calibrated digital pH meter at constant. The role of pH is most important when you formulate herbal facepack.



Stability test: Stability testing of prepared formulation was conducted by storing at different temperature condition for the period of one month, and evaluate the physical parameters like colour, odour, pH, consistency and feel. Stability testing produces that whether our formulation is in the stable form or not.

Benefits Of Herbal Facepack :

The face pack is giving the Sustenance to the skin.

It assists with, skin inflammation, pimple, scars and relying upon its natural fixings. The neem and Tulsi help to diminish skin break out and pimple and control the over release of sebum from sebaceous organs and eliminate the hurtful microorganisms inside skin break out injury. The scars and characteristics of skin can be decreased by adding fine powder of shoe, flower petals. Its assistance to eliminate the dead cells from facial skin.

- These are giving a mitigating and loosening up impact on skin.
- The face pack are utilized routinely for gleam, further develop skin surface and composition.
- The unsafe impacts of contamination and unforgiving environments can be decreased by the utilization of face pack.
- They help to forestall untimely maturing of skin.

They forestall the arrangement of kinks, scarcely discernible differences and hanging of skin.[12]

Precaution To Be Taken For Applying Herbal Face Pack :

Choose the face pack based on the type of skin you have. Before using a face pack, get the help of a natural provider or a skin expert

Apply the facepack on the skin , wait for 10-15 min and wash the face with cold water. If the face wash is remained more than the 15 min on the skin it can causes or increases the pores on the skin.

You can use the face pack once in a day or you can use it 2-3 days in the week not more than that. Spray room-temperature water on your skin before removing the dried face mask. Roll an ice cube over the skin of your face after removing the mask. This helps to tighten skin and seal pores that are open. Additionally, it calms and tones the skin.

As the skin around your eyes is so delicate, stay away from the "eye zone" when using a face pack. Skin around the eyes could become damaged during the face pack removal process.

II. CONCLUSION

Herbal face pack or mask 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 very good attempt to establish the herbal face pack containing different powders of plants. Thus, in the present work, we found good properties for face pack and further optimization studies are required on this study to find the useful benefits of face pack.

This herbal face pack contain natural herbal ingredients such as Multani mitti, turmeric, sandal wood, milk powder, rice flour, gram flour etc. after evaluation we found good properties for the herbal face pack, it has been revealed that herbal face pack having enough potential to give efficient glowing effect on the skin. This study finds the useful benefit of face pack on humans as a cosmetic. In the present scenario, people need cure for various skin problem without side effects. Herbal ingredients opened the new way to formulate cosmetics without any harmful effects. Herbal face packs are considered as sustaining and productive way to advance the appearance of skin.

This face pack supplies essential nourishment to the skin. Its helps in the elimination of the blemish, acne, pimple, scar and marks. It provides a soothing, calming and cooling effect. Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones.

RESULT

Physical characterization

Sr.no	Parameter	Observation
1	Colour	Light brown



2	Odour	Aromatic
3	Appearance	Smooth fine
4	Texture	Fine
5	Smoothness	Smooth

Evaluation of flow properties :

Sr.no	Parameter	Observation
1	Taped density	1.25gm/ml
2	Bulk density	2.08gm/ml
3	Angle of repose	40
4	Wash ability	Easily washable

Irritancy test :

Sr.no	Parameter	Observation
1	Irritation	No
2	Redness	No
3	Swelling	no

Physicochemical test evaluation :

Sr.no	Parameter	Observation
1	pH	6.21
2	Stability	stable

Stability test Result

Sr.no	Parameter	Observation
1	Colour	Light brown
2	Odour	Aromatic
3	Appearance	Smooth fine
4	Texture	Fine
5	Smoothness	Smooth
6	pH	6.37
7	Stability	stable



REFERENCES

1. Vats, A. S., & Maurya, S. (2022). FORMULATION AND EVALUATION OF COSMETICHERBAL FACE PACK FOR GLOWING SKIN.
2. Maske, A. O., Pandhare, M., & Ashwin, D. vvW. (2019). Formulation and evaluation of herbal face pack for glowing skin. International Journal of Advances in Pharmaceuticsm, 8(01), 5184-5189.
3. Yadav, N., & Yadav, R. (2015). Preparation and evaluation of herbal face pack.
4. International Journal of Recent Scientific Research, 6(5), 4334-4337.
5. Neware, P. R., Rahangdale, R. S., Patle, O. D., Suryavanshi, M. M., Donode, P. S., & Sirsat, N. S. (2022). Formulation and Evaluation of Herbal Face Pack for ACNE-Prone Skin and DullSkin.
7. Miss.Telange-Patil P.V, 2Mr. Phade S.A, 3Miss.Nimbalkar A.S Formulation and EvaluationOf Face Pack using by OREANG PEEL.
8. Aglawe, S. B., Gayke, A. U., Mindhe, S. A., & Rane, V. G. (2018). Formulation and evaluation of herbal face pack. Int J Pharm Biol Sci, 8, 49-52.
9. Bhutkar, M. K., & Shah, M. M. (2019). Formulation and evolution of herbal antibacterial face pack. Journal of Emerging Technologies and Innovative Research, 6(5), 77-82.
10. Anilkumar, V., Kalyani, R., Padmasri, B., & Prasanth, D. (2020). In-house preparation, development and evaluation of herbal cosmetics face pack using various natural powders. Journal of Drug Delivery and Therapeutics, 10(5), 159-164.
11. Sandanshiv, S. Y., Patil, S. R., Wagh, V. D., Shinde, P. A., & Mali, R. P. (2023). Formulation and Evaluation of Herbal Face Pack. Journal of Drug Delivery and Therapeutics, 13(3), 120- 124.
12. Kumar, R. (2021). Formulation and evaluation of herbal face pack. Asian Journal of Pharmaceutical Research, 11(1), 9-12.
13. Grace, X. F., Vijetha, R. J., Shanmuganathan, S., & Chamundeeswari, D. (2014). Preparation and evaluation of herbal face pack. Adv J Pharm Life Sci Res, 2(3), 1-6.
14. Priya, R., Anand, K., & Rasika, D. (2017). Preparation and evaluation of herbal anti- acneface pack. World J Pharm. Res, 6(6), 1000-1010.
15. Sao, A. P., & Pounikar, G. V. A polyherbal face pack: preparation and evaluation using in-house ingredients.
16. Suryawanshi, M. V., & Sonawane, I. Formulation & Evaluation of Herbal Face Pack.
17. Dr K R Khandelwal, Dr Vrunda Sethi Dr. Practical pharmacognosy techniques and experiments practical, pharmacognosy,2012edition, published by nirali prakashan, pg.no:23.8-23.10, 25.5.
18. P.K. Mukharjee, Quality Control of Herbal Drug, An Approach to Evaluation of BotanicalsHorizones Publication, New Delhi, 3,2008, 184-291.
19. C.V.S. Subrahmanyam, Text Book of Physical Pharamcy Vallabh Prakashan 2, 2000, 221-224.
20. Martin and Alfred, Physical Pharmacy London: Lea & Febigen Philadelphia, 4, 2007, 431-432.
21. L. Lachman, H.A. Lieberman and J.L. Kanig, The Theory and Practice of Industrial Pharmacy Varghese Publishing House, Bombay, 3, 1991, 67.

