

Available online on 15.09.2022 at <http://jddtonline.info>

Journal of Drug Delivery and Therapeutics

Open Access to Pharmaceutical and Medical Research

Copyright © 2022 The Author(s): This is an open-access article distributed under the terms of the CC BY-NC 4.0 which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited



Open Access Full Text Article



Research Article

Formulation and Evaluation of Polyherbal Face Pack

Sanket A. Avhad*, Amol A. Dixit, Shweta S. Bhakare, Jayashri K. Akiwate, Digvijay U. Aswale, Rahul V. Anbhule

Department of Pharmaceutics, Sarojini College of Pharmacy, Rajendranagar, Kolhapur-416004 Maharashtra, India

Article Info:



Article History:

Received 18 July 2022
Reviewed 19 August 2022
Accepted 27 August 2022
Published 15 Sep 2022

Cite this article as:

Avhad SA, Dixit AA, Bhakare SS, Akiwate JK, Aswale DU, Anbhule RV, Formulation and Evaluation of Polyherbal Face Pack, Journal of Drug Delivery and Therapeutics. 2022; 12(5):153-155

DOI: <http://dx.doi.org/10.22270/jddt.v12i5.5597>

*Address for Correspondence:

Sanket A. Avhad, Department of Pharmaceutics, Sarojini College of Pharmacy, Rajendranagar, Kolhapur-416004 Maharashtra, India

Abstract

Various skin problems such as wrinkles, pimples, acne, and dark circles can all be reduced with the use of herbal face packs. Additionally, they are helpful in improving the fairness and smoothness of the skin. The face packs from natural origin do contain some important ingredients such as vitamins, which are beneficial for skin's health. They act on skin by increasing blood circulation within the veins of the face. The objective of this work is to formulate and evaluate a polyherbal face pack for cosmetic purpose containing herbal ingredients such as, hibiscus, sandalwood, multani mitti, orange peel powder, turmeric and neem. All the ingredients were procured from the local market and were dried, powdered, and formulation was prepared and evaluated.

Keywords: Herbal, Facepack, Sandalwood, Turmeric, Neem.

INTRODUCTION

Cosmetics are defined as products that are used to cleanse, adorn, or enhance one's appearance. Encourage or switch up your appearance. Herbs have been used to clean, beautify, and treat them since ancient times. "Mukhalepa," or herbal pastes, are a popular in India. They were used as facial therapy in Ayurveda. ¹ This herbal paste smeared on the face is used to treat acne, pimples, rash, stains, and pigments. A face pack is a smooth powder that is applied to the face. Herbal face packs are less expensive and have no side effects when it comes to achieving naturally fair skin. The current study looks at how to make a herbal face pack for glowing skin at home with natural ingredients like Multani mitti, turmeric, aloe vera, sandalwood, orange peel powder and gramme flour.² Herbal face packs are required for various skin types. Smooth, healthy, and silky skin can be achieved the homemade natural face packs and masks.³ The herbal paste used to treat acne, pimples, wounds, stains, and pigments is known as "mukhalepa" in Ayurveda. Mukhalepana is the application of a herbal mixture to the face. This treatment is now known as facial therapy. A face pack is a smooth powder that is applied to the face. These packs come in a variety of styles and formats and are generally classified as: Wax-based, latex-based, or vinyl-based plastic masks Gel masks made of hydrocolloid (ready to use). Clay-based or earth-based argillaceous masks ready to use or dry powder. ⁴

MATERIAL AND METHOD

Method

All the powders were collected and formulation was prepared by using following formula:

Table 1: Formulation

Sr. no	Material	Formula
1.	Orange peel powder	10%
2.	Multani mitti	25%
3.	Turmeric powder	10%
4.	Neem powder	7%
5.	Amla powder	4%
6.	Hibiscus powder	24%
7.	Sandlewood powder	20%

1. Orange peel powder

Orange peel powder is rich in vitamin C and other antioxidants. On top of fighting free radicals, vitamin C brightens your skin and makes it youthful and glowing.

Orange peel powder benefits include unclogging pores, removing blackheads and treating acne. It contains citric acid, which exfoliates.⁷

2. Multani Mitti

Multani mitti helps skin by different ways like diminishing pore sizes, removing blackheads and whiteheads fading freckles, soothing sunburns, cleansing skin, improving blood circulation, complexion, reducing acne and blemishes and gives a glowing effect to a skin as they contain healthy nutrients. Multani mitti will help to make you skin radiant and excellent for aggravated and irritated skin. Multani mitti is rich in magnesium chloride.⁸

3. Turmeric powder

Haridra has anti-inflammatory and anti-allergic activity. It is best blood purifier and helps in wound healing. It possesses best blood purification action so it is used in all disease with blood impurities origin. Haridra is rejuvenator of skin and revitalizes skin; delays the signs of aging like wrinkles.⁹

4. Neem powder

Neem powder helps to get rid of the dandruff which is a fungal infection of scalp. It also reduces the skin ailments like psoriasis, eczema and other skin related infection. Neem powder cures the boils, prickly heat and other minor skin problems. Face packs enriched with neem also reduces the acne marks and scars.¹⁰

5. Amla powder

Amla contains high amounts of vitamin C and is one of the highest antioxidant-rich ingredients. The antioxidants along with the other polyphenols in amla brighten your skin naturally by fighting off the free radicals in your skin cells.¹¹

6. Hibiscus powder

The phenolic compounds in hibiscus roselle help scavenge free radicals in your skin to reduce oxidative stress caused by environmental damage. Hibiscus has a sort of magical reputation in skin care because it is a natural source of alpha-hydroxy acids (AHAs). This makes hibiscus naturally exfoliate your skin and reduce hyperpigmentation and comedones. This also helps to reduce blackheads & improve the texture of the skin.

The antioxidants present in hibiscus powder also help reduce inflammation on your skin caused by acne or other skin problems.¹²

7. Sandalwood powder

Sandalwood has an anti-tanning and anti-aging property. Sandalwood protects the skin against the impact of environmental pollution and keep the skin cool, fair and healthy. Sandalwood is helpful Ayurvedic herb with antimicrobial properties is used for healing various skin problems and removes scars.¹³

EVALUATION

Following evaluation parameters were performed to ensure superiority of prepared face pack;

Organoleptic evaluation

Organoleptic properties include color, odor, texture and smoothness.

Particle size

Particle size of the face powder was determined by optical microscopy method.

Angle of Repose

Angle of repose was determined by fix funnel method.

Irritancy test

Face pack was applied on the skin and effects were seen after 15 minutes.

Stability studies

Stability studies of the formulation was carried out at various temperature conditions room temperature, 35°C, and 40 °C.

RESULT AND DISCUSSION

Organoleptic evaluation

Face pack was prepared and evaluated for organoleptic parameters showed in table.

Table 2: Organoleptic properties

Sr. no.	Parameters	Observations
1.	Apperance	Powder
2.	Colour	Slight yellow
3.	Odour	Slight
4.	Texture	Fine
5.	Smoothness	Smooth

Particle size

Particle size determined by the optical microscopy method is used. The particle size of formulation was in the range of 22.3±2.25µm.

Angle of Repose

The angle of repose is determined by the fix funnel method are used. The angle of repose formulation was in the range of 32.09°±1°.

Irritancy test

The formulation show no irritation, redness, edema and inflammation during irritancy studies. The formulation is safe to use for skin.

Table 3: Irritancy test results

Sr. no.	Parameters	Observations
1.	Irritant	No irritation
2.	Erythema	No irritation
3.	Edema	No irritation

Stability study:

The stability study shows slight change in pH of formulation which was stored at 40°C and no changes were observed at room temperature and at 35°C. There was no change in colour and odour at other mentioned conditions of stability which were showed in following table.

Table 4: Parameters of stability studies of formulation

Sr. no.	Parameters	Room temp.	35°C	40°C
1	Colour	No change	No change	No change
2	Odour	No change	No change	No change
3	pH	6.8	6	6
4	Texture	Fine	Fine	Fine
5	Smoothness	Smooth	Smooth	Smooth

CONCLUSION

The present skin conditions such as pimples, acne can be cured by using herbal preparations. There are various herbal preparations such as herbal face pack, herbal face mask, face scrub act by different mechanism and helps to keep the skin healthy. The present formulation was prepared by using various herbs which will help in improve fairness, reduce acne, by acting on face. The formulation was subjected to various evaluation test such as particle size, angle of repose, irritancy test and all the test was passed by the formulation. Therefore polyherbal formulations have a wide variety of scope in preventing skin problems.

Acknowledgment

We are grateful to Guide Mr. Amol A. Dixit Head of Department Pharmaceutics Department, Sarojini College of Pharmacy, Kolhapur for providing the necessary guidance chemicals and facilities for completing the project work.

Conflict of Interest: The authors declare no conflict of interest.

REFERENCES

- Okereke JN, Udebu1Cosmaceuticals: Definitions and Regulations. Clin Dermatol 2001; 19 (4):37
- Udebuani AC, Ezeji EU, Obasi KO, Nnoli MC. Possible Health Implications Associated with Cosmetics: A Review, Sci J Public Health, 2015; 3(5-1):58-63. <https://doi.org/10.11648/j.sjph.s.2015030501.21>
- Mary P. Lupo. Antioxidants and Vitamins in Cosmetics. Clin Dermatol, 2001; 19:467-473 [https://doi.org/10.1016/S0738-081X\(01\)00188-2](https://doi.org/10.1016/S0738-081X(01)00188-2)
- Sowmya KV, Darsika CX, Grace F, Shanmuganathan S. Formulation & Evaluation of Poly-herbal Face wash gel. World J Pharm Pharm Sci, 2015; 4(6):585-588.
- Millikan Larry E. Cosmetology, Cosmetics, Rieger MM. Harry's Cosmeticology. In: Chapter 23, Face, body & Hair Masks & Scrubs. New York: Chemical Publishing Co., Inc, 2009; 8(1):471-483.
- Chanchal D. and Saraf S. Herbal Photoprotective Formulations and their Evaluation. The Open Nat Prod Journal, 2009; 2:71-76. <https://doi.org/10.2174/1874848100902010071>
- Dureja H., Kaushik D., Gupta M., Kumar V., Lather V. Cosmeceuticals: An emerging concept. Ind J of Pharmacol, 2005; 37(3):155-15. <https://doi.org/10.4103/0253-7613.16211>
- Hwang JK, Shim JS, Gwon SH, Kwon YY, Oh HI et al. Novel use of Panduratin derivatives or extract of Kaempferia pandurata comprising the same. U.S. Patent 0065272A1, 2012 [cited 2016 Aug 05]
- Kumar. K., Sasikanth, K., Sabareesh, M. and Dorababu, N. Formulation and Evaluation of Diacerein Cream. Asian J Pharm Clin Res 2011; 4(2):939
- Nemade CT, Baste N. Formulation and evaluation of a herbal facial scrub. World J Pharm R6.
- Baby, A. R., Zague, V., Maciel, C. P. M., Kaneko, T. M., Consiglieri, V. O., Velasco and M. V. R, Development of Cosmetic Mask Formulations. Rev Bras Cienc. Farm, 2004; 40(10):159-161.
- Baby A. R., Zague V., Maciel C. P. M., Kaneko T. M., Consiglieri, V. O., Velasco and M. V. R, Development of Cosmetic Mask Formulations. Rev Bras Cienc. Farm, 2004; 40(10):159-161.
- Banchhor M., Ashawat M.S., Saraf S. and Saraf S. Herbal Cosmetics: Trends in Skin Care Formulation. Phcog Rev, 2009; 3(5):82-89.