

Formulation and Evaluation of Cosmetic Herbal Face Pack for Glowing Skin Purpose

Mr. Kunjir sachin¹, Mr. Mahesh B. Kshirsagar², Dr. Sanjay Y. Garje³, Dr. Sayyed G.A.⁴

¹Student, SAJVP's college of pharmaceutical science research center kada.

²Assistant Professor, SAJVP's college of pharmaceutical science research center kada.

^{3&4}Associated Professor, SAJVP's college of pharmaceutical science research center kada.

Date of Submission: 01-05-2024

Date of Acceptance: 10-05-2024

ABSTRACT:-

The skin, encompassing the body's entire external surface, stands as its largest organ. Comprised of three distinct layers – the epidermis, dermis, and hypodermis – each layer boasts unique anatomy and functions. Serving as the body's primary barrier against pathogens, UV light, chemicals, and mechanical harm, the skin's intricate network plays a crucial role. Furthermore, it regulates temperature and controls moisture release into the environment. This article delves into the pertinent anatomical components of the epidermal layer, exploring its structure, function, embryological origins, vascular supply, innervation, surgical implications, and clinical significance.

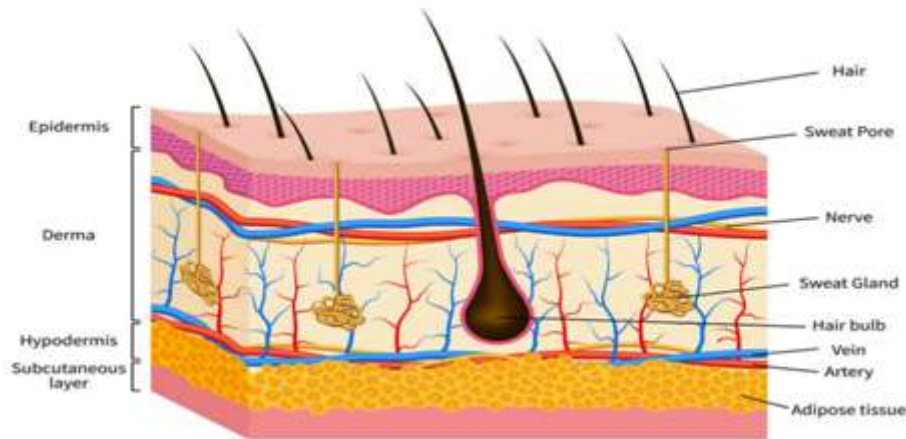
The project aims to develop and evaluate a herbal face pack composed of natural ingredients for cosmetic purposes. Locally sourced MultaniMitti, orange peel powder, UMBER peel, Banna, papaya, rose water, dried, powdered, sieved through a number 120 mesh, and blended geometrically. They were then subjected to organoleptic and physicochemical assessments, microscopic analysis, and chemical evaluation. The growing preference for natural remedies, which are perceived as safer with fewer adverse effects compared to synthetic counterparts, has heightened the demand for herbal formulations globally. This study seeks to create and evaluate a polyherbal face pack, tapping into the rising trend of herbal cosmetic products.

Skin health is paramount, requiring adequate lipids and carbohydrates for clarity, shine, and overall well-being. Historically, individuals, especially women, have been diligent in caring for their skin, often resorting to natural remedies tailored to their specific skin types. Even today, natural medicines, including plant extracts like orange peel powder and rose water, remain popular, particularly in rural and mountainous regions. Herbal cosmetics offer distinct advantages, such as their non-toxic nature, reduced risk of allergic reactions, and the proven efficacy of many ingredients over time. The findings of this study indicate promising properties of the herbal face packs, prompting further optimization efforts to unlock their full potential as cosmetic products for human use.

Keywords:- Orange peels, MultaniMitti, Herbal cosmetic, polyherbal face pack

I. INTRODUCTION OF HERBAL FACE PACK:-

The skin comprises mesodermal cells housing melanocytes responsible for pigmentation through melanin, which absorbs harmful ultraviolet (UV) radiation from sunlight. Additionally, it hosts DNA-repair enzymes that mitigate UV damage. Individuals lacking these enzyme genes are prone to increased rates of skin cancer. Malignant melanoma, predominantly induced by UV exposure, is highly invasive and rapidly spreading, often proving fatal. Skin pigmentation exhibits significant variation across different populations.



• **FUNCTION OF SKIN**

- **Protection:** an anatomical barrier from pathogens and damage between the internal and external environmental in bodily defence, Langerhans cells in the skin are part of the adaptive
- **Sensation:** contain a variety of never endings that react to heat and cold, touch, pressure, vibration and tissue injury. See somatosensory system and haptics.
- **Appearance:** It gives us our appearance and helps us recognize each other. Healthy skin contributes to how we look and feel about ourselves.
- **Regulation:**It helps regulate body temperature by sweating when we're hot and conserving heat when we're cold.
- **Absorption:** Some substances can be absorbed through the skin, like certain medicines or lotions that we put on.

❖ **Skin diseases**

Some skin diseases are minor, while others can cause severe symptoms. Among the most common skin conditions are:

1. Acne: Characterized by blocked skin follicles leading to the buildup of oil, bacteria, and dead skin in pores.
2. Alopecia Areata: Resulting in hair loss in small patches.
3. Atopic Dermatitis (Eczema): Causes dry, itchy skin leading to swelling, cracking, or scaliness.
4. Psoriasis: Presents as scaly skin that may swell or feel hot.
5. Raynaud's Phenomenon: Periodic reduced blood flow to fingers, toes, or other body parts, resulting in numbness or skin color changes.

6. Rosacea: Manifests as flushed, thickened skin and pimples, primarily on the face.
7. Skin Cancer: Uncontrolled growth of abnormal skin cells.
8. Vitiligo: Causes patches of skin to lose pigment.

Many individuals desire clear, radiant skin, yet issues like acne, blackheads, pimples, and dark circles are increasingly common among young people and those dealing with these conditions. According to Ayurveda, skin problems often stem from impurities in the blood, which accumulate due to poor dietary and lifestyle choices. Ayurveda offers various herbs and remedies to purify the blood.

In Ayurveda, "mukhalepa" refers to an herbal paste used to treat acne, pimples, scars, and pigmentation, applied directly to the face. This cosmetic therapy is popular as a facial treatment. A "face pack" typically consists of a flexible powder applied to the face, delivering essential nutrients deep into the subcutaneous tissues. Different skin types require specific herbal face packs.

For women experiencing wrinkles, under-eye dark circles, pimples, or acne, Ayurvedic face packs can offer relief. These packs not only improve skin fairness and smoothness but also provide nourishment tailored to individual skin needs. They enhance skin radiance and are an effective Ayurvedic method to stimulate appetite. Face packs have been a traditional and appealing way to cleanse the skin, with Ayurveda offering a range of options with nourishing, healing, cleansing, astringent, and antiseptic properties.

Since ancient times, herbs have been utilized for skincare and beauty. Cosmetics, designed to enhance attractiveness or cleanse the skin, have evolved over time. Homemade natural

face packs and masks contribute to smooth, vibrant, and silky skin. Ayurvedic face packs address issues like wrinkles, acne, and dark circles while enhancing fairness and suppleness. Packed with essential vitamins crucial for skin health and radiance, these natural face packs are simple to apply and offer numerous benefits.

By boosting blood circulation in the veins, Ayurvedic face packs aid in skin care, emphasizing their significance in promoting skin health and beauty.

II. MATERIALS AND METHODOLOGY:

Materials:-

Sr. No	Ingrident	Synonym	Biological source	Chemical constituents	uses
1.	Papaya	Caricapapaya	Papain is the dried and purified latex of the green fruits and leavies of carica papaya L.	Alkaloids, glycosides, tannins, saponins, flavonoids and glycosides	1 .Hydration and Moisturization. 2.Fights Acne and Pimples. 3. Natural Glow Enhancer
2.	Multanimitti	Bentonite clay	typically derived from Deposits of volcanic ash of cretaceous age and younger.	Silica, iron oxide, lime, magnesia and water.	1.Evens out skin tone and brightens complexion. 2. Treats tanning and pigmentation.
3.	Orange peel	Citrus reticulate	fresh or dried outer part of the pericarp of Citrus aurantium Linn.	orange peel contains 23% Suagr, 22% Cellulose, 25% pectins ad 11%hemicellulose (3,4,5).	1.Lighten and brighten skin. 2.Hydrates dehydrates skin. 3.Prevent acne, blemishers, wrinkles and aging
4.	Umber	Ficusracemosa	Ficusracemose Family Moraceae	lavonoid glycosides, alkaloids, phenolic acids, steroids.	diabetes, liver disorders, diarrhea, inflammatory conditions, hemorrhoids,
5.	Banana	Musa balbisiana	Bananas are a healthy source of fiber, vitamin C, and various antioxidants.	Vitamin B6. Fiber. Potassium. Magnesium.	Anti-ageing Properties. Acne Treatment. Brightening Effect.
6.	Rose water	Rosa damascene mill L.	It is the hydrosol portion of the distillate of rose pellt	vitamins A, B, C, and Flavonoids	calm irritation, and soothe sensitive skin. It's also used in facial mists to refresh

					the skin throughout the day.
--	--	--	--	--	------------------------------

Formulation Table

Sr. No	Ingridents	Taken quantity	uses
1	Umber	5 ml	diabetes, liver disorders
2	Banana	3gm	calm irritation, and soothe sensitive skin
3	Papaya	2 gm	Fights Acne &Pimples.
4	Orange peel	2 gm	Prevent acne
5	Multanimitti	5 gm	Treats tanning and pigmentation.
6	Rose water	Q.S (3ml)	Smooth skin and glow

METHOD OF PREPARATION

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 no. 100, to get the sufficient quantity of fine powder.

Collection & Storage: The powder mixture was collected and store in a suitable plastic container and used for evaluation parameter

The accurate quantity ingredients were weighed and ground into fine powder by using sieve #120. Then the all ingredients were mixed geometrically by serial dilution method for uniform mixing. Then the prepared face pack was packed into a self- sealable polyethylene bag Procedure of Face Pack Application Take prepared face pack powder in a bowl as per the requirement and add rose water to mix. Mix we and apply over the facial skin, Cover the acne and blemishes spots too. Rept as it is for complese drying for 20 to 25 min and then wash with cold water

Evaluation Studies:-

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

1. Organoleptic Evaluation:-

The organoleptic parameters include its nature, color, odor, Texture,Smoothnessand consistency which were evaluated manually for its physical properties,

- Determination Of pH:-**Drop of the sample on the pH paper using a clean dropper. Observe the change in the colour of the pH paper. Now compare the colour obtained on the pH paper with the colour shades on the standard pH chart. Make a note of the pH value obtained.
- Griftness:-**Check if you see any tiny bits or roughness in the face pack.
- Spreadability test:-**using the glass slide method. The center of the glass slide was marked with a 1 cm diameter circle upon which 0.5 g of gel was placed. Another glass slide was placed over the HG, forming a sandwich arrangement. The load of the 500 g was placed on the upper plate and weighted for 5 min.
- iritancy test;-**The left hand dorsal surface. Definite quantities of prepared face were applied to the specified area and time was noted smartness was checked if any for regular intervals up to 24 hrs and reported

III. RESULT AND DISCUSSION:-

Sr No.	Parameter	Result
1.	colour	Brown yellow
2.	odor	Slight
3.	texture	fine
4.	apperance	Powder (easily flow)
5.	smoothness	Very smooth

6.	Grittiness	Nil
7.	pH	6.89±0.1
8.	Skin irritation test	NIL

IV. CONCLUSION:

In this present study finally concluded that the face pack shows very smooth to apply with gritty particle free formulation. This face wash shows better spreadability with no skin irritation . This work shows less side effect as compare to synthetic face pack due to a these one is pure herbal face pack which are shows glowing effect , anti-oxidant properties with anti-tan activity.

Acknowledgement:-It is with pleasure of immense gratitude that I express my most cordial and humble thanks to my esteemed guide, Mr. Mahesh B. Kshirsagar, M.Pharm (Assistant Professor) for his valuable guidance keen interest perennial inspiration and everlasting encouragement. I am greatly indebted to Dr. Sayyed G.A. honorable Principal of SAJVPMS and the all management committee of SAJVPM for providing necessary facilities to carry out my work and for constant support. I owe my warmest and humble thanks to Dr. Garje S.Y. (Project Coordinator) SAJVPM, to encourage me throughout my study. I would like to express my love and gratitude to my beloved Parents, My Aai-Baba, My lovely sister and brother their blessings always inspire me to work hard and to overcome all the difficulties throughout my life . I would express my special thanks to my admirable friends Sahil, Sachin, Pradip, Akash. I would like to thank Mrs. Dalvi madam (Librarian) for provide a books continuously and constant support. My thanks to Mr. Thorve Sir for help in laboratory performance. Last but not least I would like to specially thank to all teaching and non-teaching staff of SAJPM for his & her support in each and every moment during project work.

REFERENCES:-

- [1]. Kokate CK, Purohit AP, Gokhale SB. Pharmacognosy. Vol. 1 & 11. 45th ed. Nirali Prakashan, Pune, 2010, p. 12.4
- [2]. Ansari SK, Hasan A, Parray SA, et al. Gile Multani (Solumfulionum): An Unani drug of mineral source. Int J Adv Pharmacy Med Bio allied Sci. 2016 (2016): 1-4. Available from:
- [3]. Rani S, Hiremanth R. Formulation & Evaluation of Poly-herbal Face wash gel. World J Pharm PharmSci 2015; 4(6): 585-8.
- [4]. Sowmya KV, Darsika CX, Grace F, Shanmuganathan S. Shanmuganathan S. Formulation & Evaluation of Poly-herbal Face wash gel. 4(6): 585-588. World J Pharm & PharmSci 2015; 4(6): 585-8.
- [5]. Ashwant MS, Banchhor M. Herbal Cosmetics Trends in skin care formulation. Pharmacognosy Rev 2009; 3(5): 82-9.
- [6]. Kanlayavattanukul M, Lourith N. Therapeutic agents and herbs in topical application for acne treatment. Int Cosmetic Sci 2011; 33(4): 289-97 Crossref PubMed
- [7]. Chanchal D, Swarnlata S. Herbal photoprotective formulations, and their evaluation, Open Nat. Prod J 2009; 2: 71-73
- [8]. Mithal BM, Sah RN. A Hand book of cosmetics 2nd ed. 2004.
- [9]. Kumar KK, Shashikant K, Sabareesh M. NDorababu. Formulation and Evaluation of Diacerein cream. Asian J pharm clinical research 2011. 4(2):93-8.
- [10]. Rajapet M. Amazing Benefits of Multani Mitts for Face, Skin, And Health Cited on Dec 2016, available at <http://www.stylecraze.com/articles/benefit-s-of-Multani-mitti-for-face/#gref> 2016.
- [11]. Meloche M, Witulska M. Evaluation of Skin Coloring Properties of Curcuma Longa Extract. Int. J Pharm Sci 2014; 76(4): 374-8.
- [12]. Bhat KV, Bashundhara M, Balagopal M. Osyris lanceolata through morphological and biochemical characteristics and molecular markers to check adulteration (Final Report of the project KFRI 509/06) Available from: <http://www.docskfriesin/KFRI-RR/KFRI-RR307pdf>.
- [13]. Sadowski-Bartosz I, Bartosz G. Effect of Antioxidants Supplementation on Aging and Longevity. J BioMed Research International 2014; (2014): 1-17.
- [14]. Tadimalla TR. 23 benefits of chickpea flour/gram flour/besan for skin, hair & health, Available from <http://www.stylecraze.com/articles/benefit>

- s-of-be Sangram-flour-for-skin-and-hair/#gref.cited 19 june 2017.
- [15]. 15) Shoba rani R; Hiremanth. Text book of industrial pharmacy, Drug delivery systems & Cosmetics & Herbal drug technology: Universities press (India) Ltd, 2nd Edition.
- [16]. Okereke IN, Udebuani AC, Ezeli EU, Obasi KO, Nnoli MC. Possible Health Implications Associated with Cosmetics: A Review, *Sci J Public Health* 2015; 3(5-1): 58-63.
- [17]. Mary P. Lupo. Antioxidants and Vitamins in Cosmetics. *ClinDermatol* 2001; 19: 467-473.
- [18]. Millikan, Larry E. Cosmetology, Cosmetics, Cosmeceuticals: Definitions and Regulations. *ClinDermatol* 2001; 19 (4); 371-374.
- [19]. Rieger MM. Harry's Cosmeticology. In: Chapter 23, Face, Body& Hair Masks & Scrubs *somedvoive York Chemical Publishing Co., Inc.:* 2009. P. 471-483
- [20]. Shoba rani R; Hiremanth. Text book of Industrial pharmacy, Drug delivery systemsCosmetics& Herbal drug technology: Universities press (India) Ltd; 2nd Edition.
- [21]. Millikan, Larry E Cosmetology. Cosmetic cosmeceuticals: definition and regulations.
- [22]. *Clinics in dermatology*, 2001. 19 (4): 371-3745.
- [23]. M Mithal; RN Saha, A Hand book of cosmetics: MK Jain, 2nd Edition,
- [24]. SwarnalathaSaraf, ShailendraSaraf. Cosmetics a practical manual, Pharma med press, 2nd edition. 2005, p126-129.
- [25]. Deep Chanchal; SarafSwarnlata. Herbal Photoprotective Formulations and them Evaluation, the *Open Natural Products Journal*, 2009, 2, 71-76.
- [26]. Mandeep Singh; Shalini Sharma, SukhbirLalKhokra; Ram Kumar Sahu, RajendraJangde,
- [27]. Preparation And Evaluation of Herbal Cosmetic Cream; *Pharmacology online*, 2011, 1258-1264
- [28]. Amarowicz, R., Estrella, I., Hernández, T., Robredo, S., Troszyńska, A., Kosinski, A. and Pigg. R. B. (2010). Free radical-scavenging capacity, antioxidant activity, and phenolic composition of green lentil (*Lens culinaris*). *Food chemistry*, 121(3), pp. 705-711.
- [29]. Anagnostopoulos, M. A., Kefalas, P., Papa Georgiou, V.P., Vassilopoulos, A. N. and Boskou, D. (2006). Radical scavenging activity of various extracts and fractions of sweet orange peel (*Citrus sinensis*). *Food chemistry*, 94(1), pp. 19-25.
- [30]. AnandaRajagopal, K., Sunil's son, J. A. J., Ajay Kumar, T. V., Ananth, R. and Kamal, 5. (2013). In-vitro anti-inflammatory evaluation of crude *Bombaxceiba* extracts. *European Journal of Medicinal Plants*, 3(1), p. 99.
- [31]. Anilkumar, V., Kalyani, R., Padmashri, B. and 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), pp. 159-164.
- [32]. Aslam, F., Rehman, K. U., Asghar, M. and various phytoconstituents of *Neem*. *Pak. J. Agri. Sci*, 46(3), p. 209.