



A REVIEW: DEMONSTRATING THE ETERNAL ACTIVITY OF A FACE WASH MADE WITH HERBAL PLANTS

Sanjay K.Bais, Jyoti Dum

Fabtech College of Pharmacy, Sangola, Dist. Solapur, Maharashtra, India.

Corresponding author Mail ID: dumjyoti@gmail.com

ABSTRACT:

The purpose of this study is to create and assess a herbal face wash that will help with acne and brighten and cleanse the skin. The following ingredients are used: vetiver, also known as Usheer or Khus (skin whitener); Rubia cordifolia, also known as Manjistha (blood purifier and skin glowing); pineapple & lemon (dark spot remover); Tulsi; honey; turmeric; aloe vera; neem; rose water; propyl paraben; methyl paraben; and sodium lauryl sulfate. The combination of herbs is leading to an increase in demand on the global market. The plants' microbes, antioxidants, and anti-inflammatory properties have all been documented in the literature.

People can use a variety of beauty products on a regular basis these days, especially ladies. The use of herbs for medicinal purposes was mentioned in the Vedas, and Ayurveda and Unani, two ancient healing recovery methods, are utilized.

Keywords: natural components, acne, skin care, dullness of the skin, etc.

INTRODUCTION

The herbal medication industry in India is regarded as one of the world's oldest medical care systems. The Vedas made reference to the usage of herbs for medical purposes. Two traditional medical systems, Ayurveda and Unani, rely on natural materials and herbs for their therapeutic processes. Prescription medications are the most prevalent usage for plant extracts.

❖ Skin:

The most vital component of our body is our skin. Humans have always had an obsession with taking care of their skin. The greatest portion of the body, making up 15% of an adult's total weight, is the skin. moreover, one of the delicate and characteristic aspects of a person's personality is their face's skin. Among the numerous essential tasks carried out by our skin is defence against external, biological, physical, and chemical aggressors (blockers).^[1] Clear, glossy, and healthy—a balanced diet is necessary. The connective tissues hold the various layers of cells and tissues that make up skin to the underlying structures. Many blood vessels make up the skin's deeper layer. In addition, it contains a large number of sympathetic, autonomic, and sensory nerve fibers that facilitate communication with the brain.^[2]

• The three layers of skin are as follows:

1. Epidermis
2. Dermis
3. Hypodermis

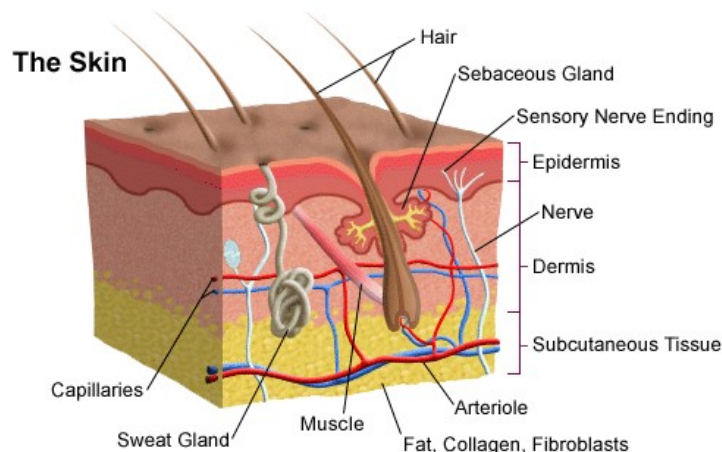


Fig.1: Structure of Skin

1) Epidermis: Only cellular components make up the epidermis. Among the several pigments present in the epidermis is melanin. This serves as a watertight barrier and the skin's outermost layer of defence.

2) Dermis: Cellular, fibrous matrix, diffuse, and filamentous matrix components make up the dermis. It is the location of nerve, lymphatic, and vascular networks. The layer that lies beneath the epidermis is called the dermis. Dense connective tissue makes up its structure.

3) Hypodermis: The bigger blood vessels and nerves are found in the hypodermis. The layer under the epidermis is made up of connective and fatty subcutaneous tissue.^[3]

- **Functions of skin:-**

1) Production: The skin's primary function is the generation of vitamin D through exposure to sunshine.

2) Protection: defence against infiltration by microorganisms, chemicals, or physical agents

3) Excretion: Sweating sodium chloride and urea impair renal function

4) Prevents moisture loss

5) Aids in controlling temperature

6) Lessens the negative effects of ultraviolet light^[4]

FACE WASH

It is a kind of cleanser for the face that is intended to clear the skin of impurities such as makeup, oil, dead skin cells, and dirt. Face wash is usually used in conjunction with toner and moisturizer as part of a daily regimen.^[5]

- **There are three different types of face wash:**

1) gel-based

2) liquid-based

3) cream-based.

1) Gel-based face wash: Composed of flower and essential oil extracts, gel-based face wash is a water-based product with a gel-like texture. For skin types that are sensitive, irritated, or itch, gel face wash is advised. You can balance the pH of your skin by using gel face wash.



Fig. 2: Gel-based face wash

- 2) **Liquid-based face wash:** There are two types of liquid-based face washes: monophasic and biphasic formulations. The active pharmaceutical ingredient (API) in a monophasic liquid dissolves entirely in the vehicle, whereas in a biphasic liquid, the API partially dissolves but remains suspended or dispersed. Pharmaceutics has made extensive use of liquid-based face washes because of their great degree of dosage flexibility.



Fig. 3: Liquid-based face wash

- 3) **Cream-based face wash:** This type of wash is thick and creamy, and it contains important moisturizing ingredients like botanical oils. Face washes with cream bases both cleanse and moisturize your skin. It will assist in removing any bacteria, makeup, sweat, and dirt.^[6]



Fig. 4: Cream-based face wash

- **Face wash should have the following qualities:**

1. stability

2. a pleasing appearance
3. It ought to generate foam.
4. It ought to spread without dragging.
5. It ought to be antimicrobial and hydrating.
6. It shouldn't feel oily or greasy after application.^[7]

- **Face wash benefits include:**

1. hydrating the skin
2. increasing blood flow
3. treating acne
4. addressing a variety of skin conditions.
5. Reduces the size of pores
6. Brightens and adds shine to the skin
7. Eliminates excess oil and dirt from the skin
8. Gets rid of dead skin cells
9. It gives skin a radiant appearance
10. It keeps skin healthy and fresh.^[8]

- **Face washing has the following drawbacks:**

1. Rashes on the skin
2. Warm feeling
3. Itching
4. Dryness of the skin.
5. Could result in allergies

- **Face wash benefits include:**

1. anti-aging
2. promoting the production and renewal of skin cells.
3. To cleanse the skin
4. To assist in unclogging the pores^[9]

MATERIALS (INGREDIENTS)

Materials from a nearby market were brought in, dried, and then powdered so they could be used later. The specific plant ingredients used in the creation of the face wash are listed below:

1) Nutmeg: -

Nutmeg is widely used because of its analgesic, antiinflammatory, antiseptic, and antibacterial qualities.

It helps to lessen wrinkles, fine lines, and other signs of ageing.

Furthermore, it minimises and diffuses the visibility of acne scars.



Fig.5: Nutmeg

- **Botanical name-** Myristica fragrans Houtt

- **Family-** Myristicaceae
- **Kingdom-** Plantae
- **Uses-**
 1. Delays sign of ageing
 2. Relieve itching, swelling
 3. Brightens the skin^[10]

2) Vetiver: -

Common names for chrysopogon zizanioides include khus and vetiver. It is a perennial bunchgrass. It reduces oiliness and tightens pores on the skin, balances PH and evens out skin tone ;and lessens inflammation of the skin.



Fig. 6: Vetiver

- **Botanical name-**chrysopogon zizanioides
- **Family-**Poaceae
- **Kingdom-**plantae
- **Uses-**Minimises the visibility of any blemishes or scars,brought on by zits, acne, or pimples, it encourages clear, immaculate skin.

3) Turmeric Rhizomes: -



Fig. 7: Turmeric

- **Botanical Name** – Curcuma Longa
- **Family** – zingiberaceae
- **Uses:** The part of the plant used medicinally is the rhizomes. Using turmeric as a pain reliever and irritation^[11]

4) Ashwagandha: –



Fig. 8: Ashwagandha

- **Botanical Name**-Withaniasomnifera
- **Family**-Solanaceae
- **uses**- It have a antiaging qualities

5) Aloe vera:-



Fig. 9: Aloe vera

- **Botanical Name**-Aloe Barbadensis
- **Family**- Aloaceae , Asphodelaceae
- **Uses**-
 1. Relieves sunburn
 2. Supports in Skin moisturization

6) Powdered Tulsi:-

Tulsi possesses a special combination of properties, such as: Antimicrobial (including antiviral, anti fungal, antibacterial, antiprotozoal, and antimalarial properties),It is referred to as holy basil , tulsi, or tulasi^[12]



Fig. 10: Powdered Tulsi

- **Botanical Name**-Ocimum tenuiflorum
- **Family**-Lamiaceae
- **Uses**-
 1. Relieves eczema and other skin ailments
 2. Treats acne
 3. Beneficial in skin aging
 4. It helps in lower blood pressure

7) Orange peel:-

Orange peels are a great source of vitamin C, which can help brighten skin and minimise dark spots or blemishes. You can achieve this by using orange peel powder straight onto your face or by mixing it with a carrier oil.



Fig. 11: Orange peel

- **Botanical Name**-Citrus Aurantium Dulcis
- **Family**- Rutaceae
- **Genus**-Citrus
- **uses**-
 1. Tightens pores
 2. Brightens skin
 3. Increase skin's glow^[13]

8) Rose water:-

rose water can lessen the appearance of ageing, it is a common ingredient in cosmetics. Rose water plumps the skin and minimises the look of wrinkles when applied to a particular area. Rose water also tightens the skin, giving you a firmer, more radiant appearance.



Fig. 12: Rose water

- **Botanical Name**- Rosa Damascena L.
- **Family**-Rosaceae
- **Genus**-Rosa L.

- **Uses-**

1. Relaxes Sensitised Skin.
2. Normalises Natural Oils and eliminates Skin Pores.

9) Amala:-

Amla has the ability to heal wounds and reduce inflammation. It works well against irritated acne because of this. Additionally, it includes vitamin C, which, when used consistently, has an exfoliating impact on your skin and helps eliminate acne.



Fig. 13: Amala

- **Botanical Name-**Phyllanthaceae
- **Family-**Phyllanthaceae
- **Genus-**Phyllanthus embilica
- **Benefits of Amala-**

1. Vitamin C is abundant in amla.
2. Amla possesses anti-inflammatory qualities.
3. Amla aids in digestion.
4. Amla increases one's metabolism.
5. We can control your blood sugar levels using amla.
6. Amla juice is good for your heart.
7. Use amla juice to detoxify your body. Amla benefits the skin.^{[14][15]}

10) Sandalwood:-



Fig. 14: Sandalwood

- **Botanical Name-**Santalum album
- **Family-**Santalaceae

- **Uses-**
 1. prevent wrinkles
 2. Reduce dark spot
 3. Reduce acne^[16]

11) Neem:-



Fig. 15: Neem

- **Botanical Name-** Azadirachta indica
- **Family-**Mahogany
- **Uses-**
 1. Treats uneven skin tone
 2. Protects against environmental damage^[17]

12) Honey:



Fig. 16: Honey

- **Botanical Name-**Apis mellifera
- **Family-**Apidae
- **Uses-**
 1. Relieves sunburn
 2. Diminishes the signs of premature aging^[18]

13) Pinaapple:-



Fig. 17: Pinaapple

- **Botanical Name**-Anans comosus
- **Family**- Bromeliaceae

14) lemon peel:-**Fig. 18: lemon peel**

- **Botanical Name**-citrus limon
- **Family**-Rutaceae

15) Xanthum gum:-**Fig. 19: Xanthum gum**

- **Botanical Name**- Xanthomonas campestris
- **Uses** –
 1. It is used as stabilizer
 2. Used as thickening agent^[19]

FORMULATION OF HERBAL FACE WASH:-

Herbal Face Wash Formulation: Orange peel extract and turmeric powder extract for antibacterial, anti-inflammatory, and anti-acne effects. Carbapol was utilized as the gelling agent in the face wash gel that we created. An alkalizing agent was triethanol amine. agent to attain optimal stability. Additionally added, propylene glycol has an emollient effect on the skin. Lauryl sulfate sodium was added in order to create foam. When it comes to application.^{[20][21]}

Table no. 1: Formulation table for herbal face wash (100ml)

Sr.no	Name of ingredients	Quantity for 100ml	Uses
1	Turmeric powder	1 gm	Anti-

	extracted ethanolicly		inflammatory
2	Extract of orange peel	1 gm	Antioxidant
3	Extract of alovera	1 gm	Antibacterial
4	Propyl paraben	2 gm	Preservative
5	Carbopol 940	0.050 gm	Gelling agent
6	Propylene glycol	1 gm	Humectants
7	Sodium lauryl sulphate	2 gm	Foaming agent
8	Bentonite	0.030 gm	Anti-static agent
9	Triethanolamine	2 ml	Neutralizer
10	Distilled water	Q.S	Vehicle
11	Rose oil	Q.S	Flavouring agent
12	Powdered nutmeg	1 gm	Brightening agent
13	Powdered neem	1 gm	Antibacterial
14	Xanthum gum	Q.S	Thickening and stabilizing agent
15	Honey	Q.S.	Gelling agent

EVALUATION OF HERBAL FACE WASH:-

Table no.2: Evaluation of herbal face wash

Formulation	Formulated	Marketed
Colour	Pale yellow	Yellow
Odour	Characteristics	Characteristics
Consistency	Semisolid	Semisolid
PH	7.4	7
Spreadability	Easily spreadable	Easily spreadable
Wash ability	Good	Good
Foam ability	Good	Good

- **Color:** The formulation has a light yellow color, in contrast to the yellow color of the commercial formulation.
- **Odor:** The commercial formulation exhibits a rosy smell, whereas the rose oil formulation has a stronger smell. Distinctive aroma.^[22]
- **Consistency:** The determination was made by hand
- **Spreadability:** The formulation's spread ability was manually determined by using a Gentle rub to apply the gel to the skin.
- **Foam ability:** A tiny quantity of gel was added to a beaker filled with water.
- **Grittiness:** The product was applied to the skin to see if it contained any gritty particles.
- **pH:** The marketed formulation has a pH of -7, while the formulation's pH is -7.3.^{[23][24]}

RESULT

The face wash made with turmeric powder, alovera, and orange peel was created, and its color, consistency, pH, spreadability, washability, grittiness, and foam ability were all assessed. The results are shown in a table.

Sr.No.	Parameter	Observation
1	Color	Yellow
2	Odour	Characteristics
3	Consistency	Semisolid
4	Foam ability	Good
5	PH	7.3

CONCLUSION:-

Prepared formulation was evaluated for colour , odour, consistency , pH , spreadability, washability, foam ability. Natural remedies are perceived as safer and having fewer side effects than synthetic ones, hence people are more likely to accept them

ACKNOWLEDGEMENT:-

I would like to express my special thanks to gratitude to my guidance teacher prof.Dr.Sanjay Bais sir Fabtech college of pharmacy sangola (Maharashtra) for their able guidance and support in completing my 'A review demonstrating the eternal activity of a face wash made with herbal plants'

REFERENCES:-

- [1]. The University of Mississippi Health Care's Face and Skin Centre 601-815-3374.
- [2]. Preparation and Assessment of Herbal Acne face wash by Mayur N. Ghotkar Rushikesh S. Chava and Shubham S. Kharade Ganesh B. Varmbhur, Nisha Jagtap, and Ranjit S. JadhavRaja Rambappa College of Pharmacy, Kar. India's Kasegaon, District-Sangli, Maharashtra-415404. [May 30, 2022, 10:20 p.m.]
- [3]. Aloe Vera: Gel extraction development procedure for December aloe vera leaves Lambert Academic Publisher, 2012 publication, Str. Heinrich-Böcking 6-8, saarbrücken, Germany 66121(ISBN: 978-659-21648-0 [May 30, 2022, 10:20 p.m.]. Muthiah NS, Suja D, Bupesh G, Nivya R, Mohan V, Ramasamy P, et al.
- [4]. antioxidant, phytochemical screening, The antimicrobial properties of citrus limousinen and Peel Extracts of Citrus Sinensis. Intl J Chinese Med. Pharmacog. 2017; 2576-4772G.K. Prashanth and G.M. Krishnaiah
- [5]. (2014) The Chemical Make-Up of the A. indica leaves, Linn. International The Journal of Engineering Advancement Technology, Administration, and Utilised Science, 1, 2131.
- [6]. Department of Deepa Hada and Kanika Sharma university of botany at Mohanlal Sukhadia, India's Udaipur, Rajasthan 313001 Chemical isolation and characterization substances found in fruit and their antibacterial activity, volume 8, issue 2, 2018: April 2018, Volume 8, Issue 2, March.
- [7]. LouayLabban Department of Nutrition, University of Kalamoon, Faculty of Health Sciences, Deir Attyah, P.O. Box 30440, Syria's Damascus, Medical and Turmeric's pharmacological characteristics (Curcuma longa): 24 Mar. 2014 review. [8]. Amy Branum, Raja, and Alexandra R. Vaughn K Sivamani Turmeric's (Curcuma) Effects longa) on Skin Care: An Organised Examining the Clinical Data Research on Phytotherapy 30 (8), 1243-1264, 2016.
- [9]. C.k. Kokate Purohit A.P. and Gokhale S.B. Pharmacognosy 43rd edition of Nirali Prakashan, 12.10, 4.4 20.5.
- [10]. Junagadh, Dr. Vallabh Chandegara December 2012 book from agriculture university.
- [11]. Dermatology, Barry, B. W. Marcel Dekker, Inc. Formulations, New Basel, York, vol. 18, 1983; pp. 96-115.
- [12]. Patricia Maria, Skin bioengineering technique assessment of extract in various contexts; Journal of Dermatology, 30 (10); 679,

- [13]. Extract in various contexts, Aatricia Maria. evaluated through skin bioengineering methodology; 30 Journal of Dermatology (10); 679, 683. R. N. Saha and B. M. Mithal, Cosmetics Handbook, First Edition, 2000 page number 21.
- [14]. Niharika, A., Anand, A., & Aquicio, J. M. (2010). Neem's antifungal qualities leaf extract from (*Azadirachta indica*) for medicinal Dandruff in hair. E-ISRJ, 2, 244-52
- [15]. Tripathi, K., Bhowmik, D., and Kumar, K. P. Chandira, M., and K. (2010). Conventional Tulsi and Other Indian Herbal Plants The significance of medicines. Research Journal of Phytochemistry and Pharmacognosy, 2(2), pages 93–101. Panda, H. (2011).
- [16]. Sowmya K.V., Darsika C.X., Grace F., Shanmuganathan S. Poly-herbal Face Wash Gel Formulation & Evaluation. 2015; 4(6): 585–588 in the World Journal of Pharmacy & Pharmaceutical Sciences.
- [17]. Kanlayavattanakul M., Lourith N., Herbs and therapeutic agents in topical acne treatments In 2011, the International Journal of Cosmetic Science published a paper. 289–297.
- [18]. Naturally occurring anti-acne agents, Kubo I., Muroi H., and 6. Kubo A. J Nat Prod, 1994; 57(1): 9–17.
- [19]. Banchhor M., Ashawat MS Herbal Cosmetics. skin care formulation trends. 82–89 in Pharmacognosy Rev. 2009; 3 (5).
- [20]. The allelopathic effects of some tree species' litter extract on germination were studied by P.C. Joshi and O. Prakash. and the development of agricultural crop seedlings.
- [21]. Shrinivas Mane Sanjay Bais Seema Gawade An Updated Review on Cosmetic Sciences International Journal of Advanced Research in Science Communication and Technology Volume 3 Issue 1 January 2023 ISSN (online)2581-9429 P No464
- [22]. World Journal of Pharmaceutical Research, 2015; 4(9): 1261–1273, Singh H.P., Samnhotra N., Gullaiya S., Kaur I., Antiacne synergistic Herbal face wash gel Formulation, Evaluation, & Stability study.
- [23]. Quddus, M. A., The farm forestry project and village's experiences with cropland agroforestry in Northwest Bangladesh. National Workshop, Gazipur, Bangladesh, September 16–17, 2001 2001: 229–239.
- [24]. Amol V Pore Sanjay K Bais Asawari D Lotake Cosmetic Science International Journal of Advanced Research in Science Communication and Technology Volume3 Issue1 January 2023 ISSN (online)2581-9429 P No472