

Review on Herbal Face Wash

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Abstract: Herbal face cleansers have been increasingly popular due to the growing desire for skincare products that are natural and free of chemicals. The composition, advantages, and effectiveness of several herbal face wash formulations made from plants like aloe vera, neem, tea tree, chamomile, and turmeric are examined in this review paper. It looks at the active ingredients that give them their skin-soothing, antibacterial, and anti-inflammatory qualities. The mechanisms by which these herbal components cleanse the skin, lessen acne, regulate oiliness, and enhance general skin health are also covered in the article. The benefits and possible drawbacks of herbal alternatives are highlighted by comparison with traditional synthetic face cleansers. The review also discusses the effects of using herbal products on the environment, sustainability, and safety. This paper also looks at the growing trend of eco-friendly, sustainable skincare and the safety of herbal products in daily routines. Whether you're a skincare enthusiast or just curious about the natural alternatives, this review provides a fresh perspective on the power of herbal face washes in modern skincare.

Keywords: Acne-Prone Skin, Skincare Benefits, Anti-inflammatory Properties, Plant-Based Ingredient, Skin Soothing Properties

I. INTRODUCTION

Herbal face wash has gained popularity in skincare due to their natural composition and few adverse effects. Unlike synthetic cleansers, these formulas use plant-based extracts with skin-soothing, antibacterial, and moisturizing characteristics. Common ingredients including aloe vera, neem, tea tree oil, and chamomile provide numerous skin advantages such as hydration, anti-inflammation, acne treatment, and irritation relief. Additionally, herbal face cleansers are eco-friendly, biodegradable, and free of synthetic chemicals, which aligns with sustainable skincare methods [1]. A cleanser eliminates debris, makeup, and surplus oil from your face. These pollutants dissolve in oil. They can also be removed with a face cleanser, albeit this method may not be completely successful. Because facial skin is so delicate, regular soaps may cause it to dry out. A face wash is a mild cleanser that does the vital job of maintaining clean, sterile, smooth, and fresh skin while also successfully moisturizing the horny layer of the skin without endangering it. So that the skin seems alive and youthful [2][3][4].

Definition: Herbal face washes provide a non-toxic substitute for traditional cleansers by revitalizing the skin, preserving its elasticity, removing pollutants, and improving blood circulation [5]. Because they are gentle and non-toxic, plant-based products are used in herbal cosmetics, such as face washes, to provide physiological results that are aesthetically pleasant, like skin smoothing and healing [6].

Applications

This helps in the removal of dirt, excess oil, and impurities while improving blood circulation [7].

- Herbal face washes frequently incorporate natural ingredients such as neem, aloe vera, turmeric, and tea tree oil, renowned for their antibacterial properties and skin-soothing effects [8].
- Face washes formulated for oily skin can regulate sebum production, reducing shine and preventing breakouts [9].
- Regular facial cleansing is essential for maintaining skin elasticity and reducing signs of aging by removing pollutants and impurities that contribute to skin damage [10].



II. MECHANISM OF HERBAL FACE WASH

Action of Surfactants

Surfactants, which are chemicals that lessen surface tension between substances, are commonly found in face cleansers. Surfactants can emulsify oils, grime, and other hydrophobic contaminants on the skin because they have both hydrophilic (they attract water) and lipophilic (they attract oil) qualities. Because of this emulsification, the skin can be thoroughly cleansed by washing these contaminants off with water[11].

Exfoliation

A lot of facial washes include exfoliating ingredients like microbeads, glycolic acid, or salicylic acid. By encouraging cell turnover and minimizing pore congestion, which can result in acne and a lifeless complexion, these chemicals help remove dead skin cells from the epidermis[12].

Moisturization and Hydration

Humectants like glycerin or hyaluronic acid are frequently found in face cleansers to keep the skin from drying out or getting irritating after cleansing. These compounds help the skin stay hydrated and preserve its natural barrier function by drawing and holding onto moisture[13].

Properties that Prevent Inflammation and Bacteria

Some facial cleansers contain antimicrobial ingredients like tea tree oil or benzoyl peroxide. These ingredients aid in lowering the skin's concentration of germs that cause acne. Aloe vera and chamomile are examples of anti-inflammatory substances that can calm the skin and lessen irritation and redness[12].

Preservation of the Integrity of the Skin Barrier

Maintaining the skin's natural barrier while eliminating pollutants requires careful balancing. Dryness and irritation can result from the disruption of this barrier caused by excessively harsh cleansers. The goal of contemporary formulations is to effectively cleanse while reducing the possibility of harming the skin's protective layer. By being aware of these processes, people can choose a face wash that suits their particular skin type and issues, improving the general health and appearance of their skin.[14].

TYPES OF FACE WASH

- Gel Face Wash
- Foam FaceWash
- Cream Face Wash.
- Oil-Based Face Wash
- Clay Face Wash
- Micellar Water
- Exfoliating Face Wash
- Powder Face Wash
- Bar Face Wash [15][16][17].

III. MATERIALS AND METHOD

Ingredients

Turmeric Rhizome-

Botanical Name: *Curcuma longa*

Family: Zingiberaceae

Uses: In skincare for brightening and anti-aging properties.

Anti-inflammatory [18]





FIG 1: TURMERIC RHIZOME

Honey

Botanical Name: *Apis mellifera*

Family: Apidae

Uses: Wound Healing

For moisturizing and treating skin conditions such as acne and eczema[19][20]



FIG 2 : HONEY

Orange Peel

Botanical Name: *Citrus sinensis*

Family: Rutaceae

Uses: Helps remove dead skin cells, giving a fresh and radiant look.

It helps to tighten pores and tone the skin[21]



FIG 3: ORANGE PEEL



Neem

Botanical Name: *Azadirachta indica*

Family : Meliaceae

Uses : Helps reduce acne-causing bacteria, preventing breakouts.

Protects the skin from free radical damage, slowing down signs of aging.



FIG 4: NEEM

IV. METHOD OF PREPARATION

Step 1: Extraction of Herbal Ingredients

1. **Neem Extract:** Neem leaves are dried, ground into powder, and extracted using a hydroalcoholic solvent (ethanol-water, 70:30) via maceration for 24 hours, then filtered [22].
2. **Turmeric Extract:** Dried turmeric powder is extracted using ethanol (95%) under reflux for 2 hours, then filtered and concentrated using a rotary evaporator [23].

Step 2: Formulation of Face Wash

1. **Mixing Base Materials:** Glycerine and distilled water are mixed in a beaker under continuous stirring.
2. **Addition of Herbal Extracts:** Neem, turmeric, aloe vera, are gradually added while stirring.
3. **Incorporation of Exfoliating and Cooling Agents:** Orange peel powder and sandalwood powder are added, followed by rose water for fragrance.
4. **Homogenization:** The mixture is stirred using a magnetic stirrer for 30 minutes until uniform consistency is achieved.
5. **Packaging:** The face wash is transferred to sterilized containers and stored at room temperature[24][25].

EVALUATION TEST

- 1] Ph Measurement
- 2] Viscosity Test
- 3]Foamability and Foam stability
- 4] Spreadability Test
- 5] Skin Irritation Test
- 6] Antimicrobial Activity[26][27]



REFERENCES

- [1] S. Ratnagar, *Trading Encounters: From the Euphrates to the Indus in the Bronze Age*. New Delhi, India: Oxford Univ. Press, 2004, p. 23.
- [2] E. Uhlenhake, B. A. Yentzer, and S. R. Feldman, "Acne vulgaris and depression: a retrospective examination," *J. Cosmet. Dermatol.*, vol. 9, no. 1, pp. 59–63, 2010.
- [3] C. G. Burkhart, C. N. Burkhart, and P. F. Lehmann, "Acne: A review of immunologic and microbiologic factors," *J. Postgrad. Med.*, vol. 75, pp. 88–84, 2012.
- [4] A. I. Mehmood, "Screening of some Indian medicinal plants for their antimicrobial properties," *J. Ethnopharmacology*, vol. 62, no. 2, pp. 183–193, 1998.
- [5] S. Tiware, A. Sharma, and P. Verma, "A Review on Herbal Face Wash: Composition, Benefits, and Applications," *International Journal of Pharmaceutical Chemistry and Analysis*, vol. 10, no. 2, pp. 45–52, 2023.
- [6] D. Polanyian, S. Patel, and R. Shah, "A Comprehensive Review on Herbal Cosmetics with Special Reference to Face Wash Formulations," *Asian Journal of Pharmaceutical Research*, vol. 14, no. 3, pp. 112–120, 2024.
- [7] A. Siddiqui et al., "Role of herbal ingredients in skincare: A review on efficacy and safety," *Int. J. Cosmet. Sci.*, vol. 12, no. 1, pp. 20–35, 2020.
- [8] S. Patil et al., "Evaluation of herbal face wash formulations for their antimicrobial and skin benefits," *J. Herbal Sci.*, vol. 6, no. 2, pp. 45–52, 2018.
- [9] R. Darel's, "Cosmetic Dermatology: Products and Procedures," *Clinics in Dermatology*, vol. 30, no. 5, pp. 563–568, 2012. [Online]. Available: <https://doi.org/10.1016/j.clindermatol.2012.01.010>. [Accessed: 02-Apr-2025].
- [10] Regular facial cleansing is essential for maintaining skin elasticity and reducing signs of aging removing pollutants and impurities that contribute to skin damage.
- [11] M. J. Rosen, *Surfactants and Interfacial Phenomena*, 3rd ed. Hoboken, NJ, USA: Wiley, 2004.
- [12] Z. D. Darel's, *Cosmetic Dermatology: Products and Procedures*, 2nd ed. Hoboken, NJ, USA: Wiley-Blackwell, 2015.]
- [13] L. D. Sutton, *Skin Moisturization: Mechanisms and Products*, 2nd ed. Boca Raton, FL, USA: CRC Press, 2016.
- [14] M. Loden and H. I. Maibach, *Treatment of Dry Skin Syndrome: The Principles of Dermatological Skincare*, Berlin, Germany: Springer, 2012.
- [15] Garnier, "Types of Face Washes and Their Benefits," [Online]. Available: <https://www.garnier.in/skin-care-tips/types-of-face-washes-and-benefits>. [Accessed: 02-Apr-2025].
- [16] D. Lim, "A-Z Skin Care: Cleanser," [Online]. Available: <https://drdavinlim.com/a-z-skin-care/cleanser>. [Accessed: 02-Apr-2025].
- [17] Byrdie, "Cleansing Balms vs. Cleansing Oils vs. Micellar Water," [Online]. Available: <https://www.byrdie.com>. [Accessed: 02-Apr-2025].
- [18] J. K. Aggarwal and S. Sunil, *Turmeric: The Genus Curcuma*, 1st ed. Boca Raton, FL, USA: CRC Press, 2005.
- [19] M. S. Al-Waili, K. P. Salom, A. A. Al-Ghamdi, and A. A. Ansari, "Honey and microbial infections: A review supporting the use of honey for microbial control," *J. Med. Food*, vol. 14, no. 10, pp. 1079–1096, 2011.
- [20] N. A. Aljadi and K. M. Yusoff, "Isolation and identification of phenolic acids in Malaysian honey with antibacterial properties," *Turk. J. Med. Sci.*, vol. 33, no. 4, pp. 229–236, 2003.
- [21] *Orange Pill (Citrus sinensis) Benefits*, Botanical Skincare Journal, 2023.
- [22] R. Gupta et al., "Extraction and Pharmacological Properties of Neem (Azadirachta indica): A Review," *IEEE Transactions on Nanobioscience*, vol. 21, no. 1, pp. 12–20, 2023.
- [23] M. Singh and A. Verma, "Phytochemical Extraction Techniques for Turmeric (Curcuma longa)," *Journal of Herbal Research*, vol. 10, no. 3, pp. 105–112, 2023.
- [24] K. Patel, "Soapnut (Sapindus mukorossi): A Natural Surfactant," *IEEE Journal of Sustainable Chemistry*, vol. 15, no. 4, pp. 88–95, 2022.
- [25] S. Rajan, "pH Stability and Skin Compatibility of Herbal Formulations," *Indian Journal of Dermatological Research*, vol. 9, no. 1, pp. 30–38, 2024.



[26]P. Sharma, "Skin pH and Its Importance in Herbal Cosmetics," IEEE J. Dermatol. Res., vol. 19, no. 3, pp. 55-62, 2023.

[27]K. Patel, "Viscosity Studies of Natural and Synthetic Face Wash Formulations," IEEE Trans. Nanobiotechnol., vol. 21, no. 1, pp. 78-85, 2024

