International Journal of Pharmaceutical Research and Applications
Volume 8, Issue 3 May-June 2023, pp: 518-523 www.ijprajournal.com ISSN: 2249-7781

A Review on Formulation and Evaluation of Herbal Face wash

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Submitted: 05-05-2023 Accepted: 15-05-2023

ABSTRACT-The herbal face wash formulated by hydro alcoholic extract of turmeric, orange peels, coffee is very helpful and does not give any side effect.The plants have been taken in this article having better antioxidant,antimicrobial and also anti inflammatory properties.All herbal ingredient used in this formulation easily available in market of surrounding area.Skinis the part of body and face skin is the more sensitive and also important for human being to appear good looking. The herbal plant use in formulation gives cosmetic properties as well as medicinal properties[4].The plant used in face wash like aloe vera, turmeric etc having properties for softening of skin, remove acne as well as promote healing.The herbal formulation was evaluated by different type of parameter like- appearance,colour,pH, viscosity,odour, solubility etc: after formulation evaluation of formulation is essential for to measure the safety and efficacy of formulated product otherwise it may cause various harmful effect[3].

Keywords-Herbal Facewash, Turmeric, Aloevera, Coffee.

I. INTRODUCTION-

The Indian herbal drug industry is considered to be one of the oldest systems of medical care in the world. Its roots can be traced back to ancient India, where the use of herbs for medicinal purposes was mentioned in the Vedas, an ancient religious text. Ayurveda and Unani, two ancient healing methods, utilized herbs and natural products to address various health conditions[8]. Despite being perceived as a recent trend by Western medical practitioners, plant extracts are still commonly used in most prescribed medicines today.

The global community now recognizes the benefits of this traditional form of medicine, resulting in a significant rise in demand for Indian herbal drugs. This sector has experienced an annual growth rate of nearly thirty percent, with a surge in demand for herbal cures, skincare products, and cosmetics. This surge in demand for natural products has been observed in recent years[7].

The skin is a vital and extensive organ of the body, and it plays a significant role in defining human personality, especially the skin on the face, which is sensitive and often considered a representative parameter. The condition of an individual's skin can also be an indicator of their overall health. The composition of the skin includes various materials such as carbohydrates, amino acids, and lipids[2,6].

Cosmetics have been developed to address various skin concerns, such as reducing wrinkles, fighting acne, and controlling oil secretion. These products aim to improve the appearance and texture of the skin, leading to a more youthful and healthier-looking complexion. However, it is essential to choose cosmetics that are safe and effective, as some products may contain harmful chemicals that can damage the skin in the long run[13].

Skin: Although you may not typically think of the skin as an organ, it is in fact made of tissues that work together as a single structure to perform unique and critical functions. The skin and its accessory structures make up the integumentary system, which provides the body with overall protection. The skin is made of multiple layers of cells and tissues, which are held to underlying structures by connective tissue. The deeper layer of skin is well vascularized (has numerous blood vessels). It also has numerous sensory, and autonomic and sympathetic nerve fibers ensuring communication to and from the brain[4].

Skin is made up of following three layers-

1. Epidermis
2. Dermis
3. Subcutaneous (hypodermis)

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Face Wash:-

Definition:A face wash is a type of facial cleanser that is specifically designed to remove makeup, dirt, oil, dead skin cells, and other impurities from the skin of the face. This helps to unclog pores and prevent skin conditions such as acne, leaving the skin feeling clean and refreshed. A face wash is typically used as part of a daily skincare routine, along with a toner and moisturizer[9].

Advantages of Face Wash[8,10,15]: There are several benefits of using a face wash as part of your skincare routine, including:-

1. **Removal of dead skin cells:** Regular use of a face wash helps to remove dead skin cells from the surface of the skin, which allows new skin cells to replace them. This promotes healthy skin cell turnover and helps to keep the skin looking radiant.
2. **Fresh and healthy skin:** A face wash helps to remove dirt, oil, and other impurities from the skin, which can leave it looking dull and tired. Regular use of a face wash can help to keep the skin looking fresh and healthy.
3. **Prevention of acne:** Excess oil and dirt can clog pores and lead to acne breakouts. Using a face wash can help to unclog pores and prevent the formation of acne whiteheads, blackheads, and other skin problems.
4. **Slower development of wrinkles:** By removing dead skin cells and promoting healthy skin cell turnover, a face wash can help to slow down the development of wrinkles.
5. **Improved blood circulation:** The exfoliating action of a face wash can help to improve blood circulation in the skin, which can promote skin regeneration and rejuvenation.

Properties of Face Wash[3,6]:-When choosing a face wash, it is important to look for one with the following properties:-

1. A good face wash should be stable and have a pleasant appearance.
2. The face wash should soften on application to the skin, making it easy to spread.
3. The face wash should spread easily on the skin without dragging or feeling oily or greasy.
4. After the water has evaporated, the residue of the face wash should not become viscous.
5. The physical action of the face wash should be that of flushing the skin and opening pores, rather than absorbing into the skin.
6. A thin emollient film should remain on the skin after use, providing a protective barrier and keeping the skin hydrated.

II. MATERIAL AND METHOD:-

Herbal drugs-

Aloevera-

Synonyms- Aloe Africana, Aloe arborescens, Aloe barbadensis.
Biological source- Aloe is obtained from the dried juice of the leaves of Aloe barbadensis.
Family- Liliaceae
Chemicai constituents- Aloin, Aloe-emodin
Uses- It is used as moisturizing agents.

Coffee-

Synonyms- Caffeine, Brew, Cappuccino

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Biological source- The biological source of coffee is its dried ripe seed
Family-Rubiaceae
Chemical constituents- Caffeine
Uses- It help to clear away dead skin cells and unclog the pores.

Turmeric-

Synonyms-Haldi, Indian Saffron
Biological Source- Curcuma longa
Family-Zingiberaceae
Uses- The anti-inflammatory qualities can target your pores and calm the skin. Turmeric is also known to reduce scarring.

Various Additives used in Fashwash:-

I. **Humectants**-Humectants are substances that have a natural ability to attract and retain moisture, making them ideal ingredients for face wash products. These hygroscopic molecules typically contain hydrophilic groups, such as hydroxyl groups, that allow them to absorb water vapor from the surrounding air and lock it into the skin. By helping to maintain the skin's natural moisture balance, humectants can help prevent dryness, flakiness, and other common skin issues.

II. **Preservatives**-Preservatives are substances used to prevent the growth of microorganisms in various products, such as food, cosmetics, and pharmaceuticals. However, certain microorganisms have the ability to produce harmful substances known as toxins, which can pose a significant risk to human health and in some cases, even lead to fatality. Methyl paraben and propyl paraben are among the preservatives that can be associated with this potential danger.

III. **Gelling agents-** Gelling agents are substances that can transform a liquid phase, whether it be water or oil, into a gel-like texture that is thick but not rigid. When added to emulsions, gelling agents can create a more fluid and easily movable consistency, as opposed to a stiff one. Additionally, some gels created with gelling agents have a thixotropic quality, meaning they will become thinner or more liquid when force or pressure is applied.

IV. **Foaming agents-** A foaming agent is a substance that is added to a liquid to create a foam or froth. Foaming agents work by decreasing the surface tension of the liquid, allowing air to be trapped in the mixture and creating bubbles. These bubbles then expand and create a foam or froth on the surface of the liquid.

Method of Formulation-

S.No	Name of ingridients	Quantity	Uses
1	Aloevera extract	0.5gm	Antibacterial
2	Coffee powder	2gm	Antioxidant
3	Ethanolic extracts of Turmeric powder	0.5gm	Antiinflammatory
4	Methyl paraben	1gm	Preservative

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5	Glycerin	1ml	Humectant
6	Sodium lauryl sulphate	1gm	Surfactant
7	Distilled water	Qs	Vehicle
8	Rose oil	Qs	Flavour

Procedure-

1. Ethanolic extract of Turmeric, coffee and extract of aloe verawas prepared by hot extraction method using water condenser.
2. Required quantity of methyl paraben dissolve in distilled water by heating on water bath.
3. Then the solution should be cooled and required amount of sodium lauryl sulphate should be added.
4. Further sufficient extracts quantity of Turmeric, Coffee, Aloe vera should be mixed and add glycerine with continuous stirring.
5. Then add rose oil drop wise for fragnance and made the gel with required quantity of water.

Evaluation-

Physical evaluation:

Physical parameters, such as color, appearance and consistency, are examined for people with visual impairment.

Washability:

The formulation has been used on the skin and then easily verified after washing with water.

pH:

Using a digital pH meter calibrated at constant temperature, the pH of 1% of the hydro transpiration is calculated..

Spreadability:

Spredability indicate the limit of the area in which the gel spreads easily on the skin or the affected part. The biological availability of the functionality to create a gel also depends on the value of the extension . By slides spelabiliti two seconds, put the second slide to slide out of jail, it shows below a certain weight. Reduce the time needed to separate the two slides, a good spreadability. Two standard sizes of standard glass were taken. Herbal gel was designed in one of the slides. The other was placed on top of the slide gel, like a gel sandwich between the two slides on the 6-centimeter slide on the slide. The weight of 100 gms was placed in the upper slide so that the gel between the two slides were pressed evenly with a thin layer. The weight was eliminated and eliminated much more than the prisons that adhere to the slides. In the position, two slides are placed without interruption, thus remaining in such a way that, in this way, the weight of the body built in the upper slide is like a free dream. A weight of 20 gm was built in the upper slide. The time needed for the previous slide is to go to a distance of 6 cm 7, separated from the next slide by the weight of the weight. This experiment was performed three times in the average time taken to gel and commercialize gels and calculate three times.

Spreadability was calculated by using the following formula-

S=M×L/T

Where,

S-Spreadability

M-Weight tied to the upper slide (20gm).

L-Length of the glass (6.5cm).

T-Time in sec.

III. CONCLUSION

A formulated herbal face wash gel containing turmeric powder extract, aloevera extract, and orange peel extract was successfully developed using carbapol as a gelling agent. The formulation was subjected to various evaluations including color, odor, consistency, pH, spreadability, washability, grittiness, and foam ability, which yielded acceptable results. These findings suggest that the prepared formulation may be effective for its intended use, but further testing may be necessary before it can be utilized in practical applications.

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International Journal of Pharmaceutical Research and Applications
Volume 8, Issue 3 May-June 2023, pp: 518-523 www.ijprajournal.com ISSN: 2249-7781

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