

A REVIEW ON: “FORMULATION AND EVALUATION OF ORANGE PEEL HERBAL FACE WASH”

SHARVARI S. DESHMUKH

SSJP's Ojas College of Pharmacy, Ambewadi, Rewgaon Road, Jalna – 431203

ABSTRACT

The aim of the study is to formulate face wash using natural ingredients.

The aim of this study is to create and assess the herbal products, face wash that uses natural components to promote glowing skin. Everyone aspires to have lovely, light skin. Because natural medicines are thought to be safer and have less adverse effects than synthetic ones, they are more widely accepted. The study's findings provided scientific confirmation that a herbal face wash had the capacity to effectively brighten skin. Because of the entire study's beneficial effects on people, it can be used to support claims made about products.

INTRODUCTION

A cleanser is a facial care product that is used to remove makeup, dead skin cells, oil, dirt, and other types of pollutants from the skin of the face. This helps to unclog pores and prevent skin conditions such as acne. A cleanser can be used as part of a skin care regimen together with a toner and moisturizer.

The skin is the largest organ of the body, accounting for about 15% of total adult body weight. It performs many vital functions, including protection against external, physical, chemical and biological assailants, as well as prevention of excess water loss from the body and role in thermoregulation. The skin is continuous, with the mucous membranes lining the body's surface. To keep skin healthy, clear, glossy, a balanced nutrition is required. Apart from the balanced nutrition, hormonal changes especially during puberty in both sexes cause many changes in the body. Among various changes, dryness, roughness and pimples are most common.

❖ The pathogenesis of acne involves multiple physiological factors. These include

- 1) Follicular hyperproliferation
- 2) Increased sebum production due to higher androgen levels & colonization of organism.
- 3) Propionibacterium acnes & staphylococcus epidermidis.

Novel concept have emerged to help better understand its pathogenesis, these includes variation in target cell sensitivity, biological markers, neuro-endocrine, genetic, & environmental factors. Plenty of herbal as well as synthetic ingredients are reported to have remarkable beneficial effect on acne vulgaris.

❖ They may have different mechanism secretion :

- A) Control sebum secretion.
- B) Antibiotics which inhibits Propionoi bacterium acne & Staphylococcus epidermidis, the main causative organism of acne.
- C) Keratolytic which removes the keratin layer & prevents the trapping of sebum under the skin.
- D) Anti-inflammatory which prevents the worsening of condition due to inflammation or redness etc.

Skin is the major part of the body, which indicates the health of an individual. It is a consist of materials such as amino acids, lipids and carbohydrates etc. So that a balanced nutrition is required for the skin to keep it clear glossy and healthy, it deals with the formulation and characterization of cosmetic herbal face wash preparation.

In ancient times women are very conscious about their beauty and started to dress themselves because they wanted to increase their own beauty. Even today, people especially in rural areas, and hilly region select the natural remedies like plants extracts for cosmetics purposes like neem, orange rose. Herbal cosmetics are products which are used to purify and beautify the skin.

Face wash is the products which are used to cleanse face without drying it out. Face wash is also commonly known as “cleanser”. Face wash product found to be equally good for all skin type. Face wash is very helpful in removing dirt, oil and provide moisture to the dry skin. Both face washes & cleansers are used to rid your face of dirt, oil, pollution etc. A cleanser dissolves away excess oil makeup and grime from your face. These are oil soluble impurities. They can be removed by a face wash too, but that might be not 100% effective. Facial skin is the delicate and ordinary soaps can cause it to lose moisture.

A face wash is a mild cleanser that does the vital job of keeping skin clean, germ free smooth and fresh and moisturizes the horny layer without any harshness to the skin. So that skin look young and energetic. The purpose of face wash may be to impart cleansing, anti-wrinkle effect, anti-acne property, moisturizing effect and fairness of skin.

❖ Forms Of Face Wash:

1. Cream based face wash.
2. Gel based face wash.
3. Liquid based face wash.

1. Cream based face wash: A cream-based facewashes as well as moisturizes your skin. A cream based facewash is usually thick, creamy, and contains essential moisturizing elements like botanical oils. It will help you in getting rid of any dirt, sweat, makeup, or bacteria. Cream based facewashes creamy cleansers work best for dry skin. They leave the skin void of all impurities without further stripping it of essential natural oils.



Figure: Cream based face wash

2. Gel based face wash:

Gel facewash are water-based facewash with a gel-like texture that are typically made from the extracts of flowers and essential oils. Gel facewash that can help balance your skin's PH. Gel facewash is recommended for sensitive

and irritative or itchy skin types. Although many gel facewash remove extra oil, they do not bear your skin of all its oil and thus are good for dry skin as well.



3. Liquid based face wash: **Figure: Gel based**

Liquid based facewash have been widely used in pharmaceuticals due to their high dosing flexibility, ease of swallowing, and quick onset of action. Typically, they are categorized as monophasic and biphasic formulations, wherein within these two broad categories lies a wide range of dosage forms. In a monophasic liquid the active pharmaceutical ingredient (API) is completely dissolved within the vehicle, while in the case of biphasic liquids, the API does not completely dissolve and instead is suspended or dispersed within the vehicle, forming two phases.



Figure: Liquid based face wash

❖ AIM & OBJECTIVES

Aim:

Formulation and evaluation of orange peel herbal face wash

OBJECTIVES

- Get soft & supple skin

The potassium factor of orange peel powder ensures that your skin is nourished with ample moisture and retains its softness. It prevents skin dehydration and supports new skin cell growth while assisting in healing blemishes and scars. Orange peel powder is a potent ingredient that is highly effective in getting smoother and softer skin.

- It Exfoliates Skin Well

We all need to exfoliate well once a week to deep cleanse our skin. Orange peel powder, being finer than salt or sugar granules, performs an excellent job as a skin exfoliator.

It gets rid of everyday grime, and dead skin cells, removes blackheads, and whiteheads, unclogs pores, and ensures skin renewal. Make applying an orange peel powder pack your way to clean and clear skin that radiates a healthy glow.

- No Tan Lines Get soft & supple skin

Your beach vacation gave you a tan. No worries! The orange peel powder is known to remove tan lines and it can bring back your glow.

The benefits of orange peel powder for the face include lightening the pigmentation and removing uneven and unwanted tan lines. So, no more dull skin. This is your cue to enjoy the sun but preferably with the sunscreen on.

- Get an even tone

The bleaching effect of orange peel powder reduces skin pigmentation, dark spots, and scars due to acne & skin infections. It evens out your tone & smoothes your skin texture by increasing collagen production, ensuring you enjoy a beautiful, attractive complexion.

- Boost Natural Radiance

It performs a miracle by reducing facial scars and pigmentation. Orange peel works as a natural skin bleach. Due to its bleaching characteristics, the peel can operate on all kinds of blemishes and brightens the skin of that segment to make the spots invisible. The fruit peel is filled with citric acid which efficiently illuminates the skin tone.

- Skin Hydration

Dehydrated skin is dull skin. Orange peel powder gives your skin the hydration dose it needs, moisturizes it well, and keeps it radiating a healthy glow. By locking in the necessary moisture, it relieves flaky and itchy skin.

- Vitamin A For Skin Pampering

Rich in Vitamin A, orange peel powder strengthens the dermal layer, irons out fine lines, boosts blood flow to the face, and takes good care of your skin. Make sure that your skin has a constant supply of oxygen and keep it clear with an orange peel powder pack.

- Slows down skin cell aging

The antioxidant-packed orange peel powder fights harmful free radicals that damage the cell membrane, prevent oxidation, and keeps your skin youthful and radiant. It renders you happy and healthy skin that leads to a vibrant you.

Well, if how to use orange peel powder for face is your question, we have your answer. Take the organic route and make a nourishing orange peel powder face pack at home for a relaxing, skin-pampering weekend.

- Acne-Fighting Treatment:

Orange peel powder has antimicrobial and anti-inflammatory properties that can be beneficial for acne-prone skin. Make a paste by mixing orange peel powder with rose water or aloe vera gel. Apply this paste to your face and leave it on for 15-20 minutes before rinsing. Regular use may help reduce acne and calm irritated skin

MATERIALS AND METHOD OF PREPARATION

Sr. No	Ingredients	Botanical Name
1	Natural Foaming Agent [SLS]	Quillaja Saponaria (Soap Bark) Decyl Glucoside, SLS, etc.
2	Orange Peel Powder	Citrus Aurantium Dulcis
3	Orange Essential Oil	Citrus Aurantium Dulcis
4	Vitamin E capsule	Alpha-tocopherol
5	Rose Water	Rosa Damascena
6	Xanthan Gum	Xanthomonas campestris
7	Aloe vera	Aloe barbadensis miller
8	Honey	Honey

EXPERIMENTAL WORK

Sr no.	Ingredients	F1	F2	F3	Uses
1	SLS	2g	2g	2g	Foaming agent
2	Orange Peel Powder	0.25g	0.25g	0.25g	Acne control, lightens skin tones, hyperpigmentation
3	Orange Essential oil	0.5ml	0.1ml	0.5ml	Antibacterial, antioxidant
4	Vit E Capsule	2	2	2	Decreasing wrinkles, reduces swelling
5	Xanthan Gum	0.5g	0.1g	0.15g	Non-toxic thickner and stabilizer
6	Aloe vera	0.3g	0.5g	0.7g	Hydrating agent, anti-wrinkles
7	Honey	0.5ml	0.5ml	0.5ml	Antioxidant, sweetners
8	Lemon juice	0.1ml	0.1ml	0.1ml	Natural pH adjuster
9	Rose water	q.s	q.s	q.s	Flavoring agent, emollient, cooling agent



Figure: Ingredients used in experimental work

Procedure

- 1) The appropriate concentration of the gelling agent Xanthium gum, was precisely weighed, mixed with moderate stirring to prevent air entrapment and then allowed to soak overnight in hot rose water (not more than 60°C; 50% weight of the batch size).
- 2) By gently swirling, the right amount of honey, aloe vera, vitamin-e capsule was combined with the necessary amount of lemon juice.
- 3) The desired amount of concentrated herbal extracts was added to the left-over rose water and gently combined with the orange peel powder mixture above.
- 4) Eventually, this was blended with the previously soaked gel composition. At last add the mixture with SLS solution. Formulations were prepared.

EVALUATION PARAMETERS

The prepared face wash formulation was evaluated for following parameter:

- **Color:**
The color of the face wash formulation was checked visually.
- **Odor:**
The formulation was evaluated for its odour by smelling it.
- **Consistency:**
It was determined manually.
- **pH:**
pH of 1% aqueous solution of the formulation was measured by using a calibrate digital pH meter at constant temperature.
- **Spread-ability:**
The spread-ability is determined by using spread-ability testing apparatus. It consist of wodden block, which is provided by pulley at one end with the help of string attached to hook and time required to move till the end was noted and the length of spread gel is also noted.
- **Washability:**
Formulation was applied on the skin and then ease and extent of washing with water was checked manually.
- **Foamability:**
Small amount of gel was taken in a beaker containing water. Initial volume was noted, beaker was shaken for 10 times and the final volume was noted.
- **Viscosity:**
About 10ml of formulated sample was taken in the beaker and checked on digital viscometer and record the observation were recorded.

OBSERVATIONS

Our prepared/formulated herbal orange peel face wash was evaluated and data was collected and reported in the given table;

Sr no.	Parameters	Observations
1	Color	Orange
2	Odor	Characteristics
3	Consistency	Good
4	pH	7

5	Viscosity	1690 cp
6	Spread-ability	Easily spreadable
7	Washability	Easily washable
8	Grittiness	No gritty particle's
9	Foamability	Foam volume 100ml at 5min

APPLICATIONS

- It helps to remove dead skin cells that helps new skin cells replace old one.
- It helps to keep skin fresh and healthy.
- It makes the skin to look radiant.
- Removing dead skin cells that means your skin will develop wrinkles at a slower pace.
- As an antioxidant, vitamin C may help prevent free radicals that can damage collagen, leaving you with smoother skin.
- The mixture of dead skin cells and excessive oil clog pores, which can lead to acne white heads, blackheads and total weary appearance. Exfoliating the pores regularly, avoids all the above skin problems.
- As a rich source of vitamin C and citric acid, lemon are known for their detoxifying effects, especially when you add a few freshly cut wedges to your drinking water. Because of the health benefits of eating lemons, there is a growing popularity for using lemons as a natural treatment for skin conditions, like age spots and acne.
- Some proponents of using lemon on the skin say that the citrus fruit is a natural method of increasing collagen in facial skin. Collagen is a protein that naturally breaks down with age, which can then result in fine lines and wrinkles.
- Because of its acidic nature and anti-microbial properties, lemon is said to work wonders in fighting skin breakouts like acne, pimples and blackheads by cleaning dirt and oil from deep within. It further helps in tightening the skin pores to give you a smooth skin.

RESULT

In this research Orange peel herbal face wash were prepared and evaluated by various evaluation parameters. The ingredients included in the formulation are safe, efficient, suitable for all skin tones. The preparation and formulation of Orange Peel Herbal Face Wash was done successfully.

Figure: Orange Peel Herbal Face Wash



CONCLUSION

Orange peel powder can help you attain glowing skin since it contains vitamin C, which helps to reduce pigmentation and lighten your skin tone. The anti-bacterial and anti-microbial properties aid in unclogging Skin Pores and removing excess oil, which aids in the treatment of Pimples and Acne.

Using Orange Peel Powder for Acne Scars and pimple marks also aids in skin pigmentation. Because of its anti-aging effects and reducing pores size, it aids in the battle against aging. It The perception that natural remedies are safer and less likely to cause side effects than synthetic ones has led to their increased acceptance. The modern population needs treatments for a variety of skin conditions that don't have any side effects.

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