

Formulation and Evaluation of Multipurpose Herbal Scrub

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ABSTRACT

Background: The primary goal of this study was to create a Multi-Purpose Herbal Scrub infused with gel. In everyday life, both men and women use cosmetics to beautify and alter the appearance of their skin. Nowadays, consumers are well aware of product benefits and side effects, so the use of herbal cosmetics is increasing because herbal cosmetics have fewer or no side effects. The development and assessment of a herbal anti-oxidant scrub made with herbal substances is the focus of the current research. The prepared scrub was assessed for a number of physical characteristics, including skin irritancy, viscosity, homogeneity, pH, colour, and odor. *Garnicia indica*, *fagopyrum esculantam*, *citrus Morinda*, and *salvia hispanica* were the ingredients used to make scrub. The literature has described all of the compounds' exfoliating and scrubbing abilities. The topical drug delivery system is easy to use, highly efficient, and helpful in removing impurities from the skin and exfoliating dead skin cells. **Aim:** The present investigation aims to design antioxidant Poly herbal scrub by using different types of herbal plants like , *Garnicia indica*, *fagopyrum esculantam*, *citrus Morinda*, and *salvia hispanica* etc.

Conclusion: Consumers always search for natural-based cosmetics to avoid allergic reactions and any sort of side effects. Further research is appreciated for formulating the scrub with some other additional advantages of skin benefits.

Keywords: Herbal scrub, Antioxidant activity, *Garnicia indica*, *fagopyrum esculantam*, *citrus Morinda*, and *salvia hispanica*

I. INTRODUCTION

WHAT IS HERBAL SKINCARE COSMETICS

The term cosmetic was derived from the Greek word "kosm tikos," which means "having the ability to organize and decorate"[1].

Herbal Cosmetics, also known as Products, are developed utilizing several permitted

cosmetic materials to build the basis in which one or more herbal substances are employed to deliver specific cosmetic advantages solely. [2]

In today's world, cosmetics play a significant part in beautifying and changing the appearance of skin for both men and women.

Starting in the 1990s, cosmetic manufacturers used the word "cosmeceuticals" to characterize over-the-counter skin care products that promise therapeutic benefit from the inclusion of plant-based active ingredients such as alpha-hydroxy acid, retinoic acid, ascorbic acid, and coenzyme Q10[3].

These active compounds perform several functions, including increasing skin appearance and beauty. The cosmetics, according to the Drugs and Cosmetics Act is defined as articles intended to be rubbed, poured, sprinkled or sprayed on, introduced into or otherwise applied to the human body or any part thereof for cleansing, beautifying, promoting attractiveness or altering the appearance.[4]

The cosmetic does not come under the preview of drug license. The herbal cosmetics are the preparations containing phytochemical from a variety of botanical sources, which influences the functions of skin and provide nutrients necessary for the healthy skin[5]

suppleness, delaying skin ageing by minimizing wrinkles, protecting against UV radiation through antioxidant properties, and preventing collagen degradation[6].

The skin due to excessive exposure to heat will dehydrate during summer and causes wrinkle, freckles, blemishes, pigmentation and sunburns. The extreme winter cause damages to the skin in the form of cracks, cuts, maceration and infections [7].

Skin conditions affect people of all ages often and can be brought on by exposure to environmental toxins such as microorganisms, chemicals, and biological agents as well as, to a lesser extent, starvation. [8]

The only factor they had to rely on was the knowledge of nature compiled in the ayurveda.

The science of ayurveda had utilized many herbs and floras to make cosmetics for beautification and protection from external affects. [9]

The use of natural ingredients to remain healthy and of good appearance the skin surface requires frequent cleansing to remove oil, sebum and other secretions, dead cells, crusts and impurity.

- FACE WASH
- FACE SCRUB
- FACE SERUM
- CREAM
- FACE PACK Etc...

OUR MAIN TOPIC IS TO PREPARE ANTI OXIDANTFACE SCRUB BY HERBAL INGREDIENTS.

FACE SCRUB Facial scrub is the cosmetic product which cleanses, exfoliates the skin of the face and gives healthy complexion.

Generally, skins are of three types; dry skin, oily skin, and sensitive skin.

The people with dry skin must use facial scrub which contains hydrating ingredients and moisturizer is must for them after using scrub.

Gentle scrubs should be used for sensitive skin. For those who are having oily skin, it is essential to get a scrub that exfoliates deeply to prevent the pores from clogging and also to balance the skin's oil production.

WHY SHOULD BE EXFOLIATING WITH ANTIOXIDANT?

Antioxidant have a multitude of skin benefitting qualities they can help brighten, soften, energize, protect and smooth your skin.

The antioxidant face scrub can help to exfoliate your skin which helps shed your surface skin layer and dead cells, revealing fresh and glowing skin.

ANTIOXIDANT

In a chemical sense, antioxidants are electron-giving compounds, while in a biological sense antioxidant are molecules or compounds that can reduce free radical activity by preventing cell oxidation.

Antioxidants have an important role as a substance that is efficacious for various diseases related to lifestyle such as cancer, diabetes, cardiovascular and other degenerative diseases. This is related to lifestyle and levels of stress that occur continuously, the negative effects of

pollution and exposure to harmful chemical compounds. All of these things can lead to the accumulation of dangerous free radicals.

Natural antioxidants are a type of antioxidant that comes from plants and animals. Examples of natural antioxidants are tocopherol, ascorbic acid, phenolic components, hydroximic derivatives, curamine.

There are many foods that can be a source of natural antioxidants, for example spices, tea, chocolate, leaves, seeds of cereal, and vegetables.

Natural sources of antioxidants are generally phenolic compounds that are scattered throughout the plant. Phenolic compounds, among others, can be in the flavonoid group.

The ability of flavonoids as antioxidants has been widely researched, where flavonoids have the ability to reduce or reduce free radicals and also as anti-free radicals. Natural chemical compounds that are classified as antioxidants are ellagic acid, proanthocyanins, polyphenols, carotenoids, astaxanthin, tocopherol, and glutathione.

SKIN TYPE BENEFITING EXFOLIATION

Aged and mature skin

In aged skin with a thin epidermis and atrophied dermis, the fatty tissues of the hypodermis may also decrease. The texture of the dermal tissue changes as the collagenous fibers progressively organizes in large bundles. Blood circulation decreases in the skin's micro vessels, and sweat production decreases due to a reduction in the number of active sweat glands. Sebum production is lower and pigmentation changes occurs leading to age spots. In aging skin the natural sloughing of older cells from the skin becomes more difficult, causing a dull, thick skin with less tone. Exfoliation with a formulation containing skin nutrients and moisturizers is especially effective on prematurely-aged and mature skin, as it stimulates natural cell renewal.

Acneic skin

Acneic skin produces five times more dead skin cells than occur in other skin conditions and exfoliation can have great benefits for acneic skin. Hydroxy acids are effective in preventing dead skin cells from clogging hair follicles and contributing to acne.

Hyperpigmentation

Hyperpigmentation is a darkening of skin color caused by either an increase in melanin or

melanocytes, or from deposition of a colored substance in the skin. Exfoliation helps to shed these pigmented cells more quickly and lighten age spots. Special ingredients in the exfoliant allow it to effectively penetrate a hyper-pigmented area at its source.

Dehydration

In dehydrated skin, the lack of moisture leads to fractures in the cellular barrier, leaving skin tight and stretched. Overmoisturization leads to a dull, uneven skin tone. By applying an exfoliant, the dying skin cells are effectively layer-moved and moisturizing and hydrating ingredients can penetrate deeper into skin to help ease dry skin conditions.

BENEFITS OF SCRUBBING YOUR SKIN

For A Squeaky Spotless Skin: Scrubbing gives you clear skin, free from dirt, oil, and sweat. Frees Your Skin from Flakes: Blistered skin looks hideous!

Helps In Removing Dead Cells

Adds Glow to Skin

Removes Dark Patches.

Removes Acne Scars

Prevents Ingrown Hair

For smooth skin

Improve the smoothness of your skin

Promotes clear complexion

OBJECTIVE

1. PROVIDE SMOOTHER SKIN
2. REMOVES DEAD SKIN CELLS
3. FOR HEALTHY GLOW
4. REMOVES DARK PATHES
5. IMPROVE THE TEXTURE OF SKIN
6. PREVENT INGROWN HAIR
7. REDUCE ACNE AND BREAKOUTS
8. PREVENT PREMATURE AGING

DRAWBACK OF SCRUB

- Too much scrubbing will disrupt the layer of skin and make the skin more sensitive to UV rays
- Leading to easy tanning,
- Rashes
- Sunburns
- Skin irritation
- Allergic reaction

II. FORMULATION AND EVALUATION

DRUG PROFILE (MAIN INGREDIENT)

1. Fagopyrum esculentum:

Family: Polygonaceae

Common name: Buckwheat



As medicine, buckwheat is used to improve blood flow by strengthening veins and small blood vessels; to treat varicose veins and poor circulation in the legs; and to prevent "hardening of the arteries" (atherosclerosis).

It is also used to treat diabetes.

It has also health benefits such as prevents cancer, boosts the immune system, reduces the risk of gallstones, improves digestion, prevents asthma and anemia also a great source of protein.

Buckwheat seeds, being high in polyunsaturated fatty acids, supports skin's elasticity. Its flavanoids extend the action of vitamin C and acts as antioxidants. For this reason buckwheat extract is an important anti-aging ingredient in skincare.

2. GARCINIA INDICA:

Family: Clusiaceae [12]

Common name: Kokum

Garcinol which is yellow colored, fat soluble pigment found in the rinds of Kokum has an anti-cancer activity. [14] Garcinol is a polyisoprenyl benzophenone which has antioxidant activity.

It has anti-obesity activity because of the hydroxycitric acid present in Garcinia indica.

Also it has an anti-ulcer, anti-fungal, anti-hyaluronidase and anti-elastase activity. Used in a food industry to make products like kokum syrup, kokum butter, kokum beverages etc.

Kokum is used as a natural moisturizer to keep skin supple and silky smooth. And effective for treatment for severely dry skin, ulceration and fissures of lips, hands, feet, etc.

Kokum butter is used in preparation of cosmetics, bar soaps and skin lotions



pressure, aches, pains, burns, arthritis, inflammation, tumors, the effects of aging, and parasitic, viral and bacterial infections. Noni has traditionally been used for colds, flu, diabetes, anxiety, as well as for depression. It also has an antioxidant property for skin.



3.SALVIA HISPANICA:

Family: Lamiaceae

Common name: Chiaseed

It contains omega-3 fatty acids which has capability of blocking calcium and sodium channel dysfunctions, which can consequences in hypertension. It also improve the parasympathetic tone, heart rate variability and protect ventricular arrhythmia.



5.TAMARINDUS INDICA:

Family:-Caesalpiaceae

CommonName:-Imli

Source: Seeds of Tamarindus Indica Tamarind seed extracts are beneficial for skin care. Tamarind seed boosts skin elasticity, provides hydration and smoothness This contains hyaluronic acid that helps in skin moisturization and smoothens fine lines and wrinkles



Chia seed greatly decreased the visceral adiposity, triglycerides and LDL cholesterol. Application of topical formulation improved the skin hydration, lichen simplex chronicus. It has an antioxidant activity

LIST OF INGREDIENTS USED IN FACE SCRUB

4.MORINDA CITRIFOLIA:

Family:Rubiaceae

Common name:Nonifruit

Polynesian healers have used noni fruits for thousands of years to help treat a variety of health problems such as diabetes, high blood

INGREDIENTS	QTY.TAKEN (gm/ml)	USE
Stearic acid xxx	7.2	Emulsifier
Glycerin	3.153	Humectant
Potassium hydroxide	0.297	Emulsifying agent
water	19.2	vehicle
Buckwheat powder	0.0375	Antioxidant
Kokum powder	0.15	Antioxidant
Chia seed powder	0.0375	Antioxidant
Noni fruit powder	0.075	Antioxidant
Tamarind seeds	0.075	Antioxidant
perfume	0.5	fragrance
Sodium lysate sulphate	0.5	Foaming agent
Triethalona mine	0.6	Ph adjuster
Butylated hydroxytoluene	0.63	preservative

Parameter	Result
Appearance	Creamish white
Homogeneity	Good
Removal	Easy
After feel	Emollient
Type of smear	Continuous
pH	5.5
Acid value	5.7
Saponification value	17.3
Primary skin Irritation test	Nil
Tube extrudability	Good

EVALUATION PARAMETERS

1.Appearance: The appearance of the formulation

was determined by its coarseness, color, pearlescence, thickness and segregation.

2. Removal: The removal of the applied formulation was done by washing under tap water.

3. After feel: Formulation were applied on skin and examined its smoothness emolliences and amount of residue left after application.

4. Determination of pH: Accurately weighed 0.5gm of the formulation was dissolved in 50ml of distilled water and its pH was measured.

5. Type of smear: The type of smear or film formed on the skin was examined by the application of the cream scrub on the skin.

III. RESULT AND CONCLUSION:

- It is vegan and cruelty free
- It is economic and safe as compare to other marketed formulations
- This face scrub provides the users an instant shine and glow after application
- It also suitable for dry skin & oily skin
- It is found to be stable
- During stability study

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