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Review On Multipurpose Herbal Cream On Skin Care

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ABSTRACT

Herbal multipurpose cream is intended to treat various skin diseases. It also help to enhance one's appearance work as a cosmetics. The creation of a multipurpose herbal cream for nourishing, and treating a range of skin conditions is the aim of the current review. Among the basic medications used to produce the cream are *Curcuma longa*, *Carica papaya*, *Azadirachta india*, and *Ocimum sanctum* [3].

The different therapeutic properties of the medicines are taken into consideration when choosing the components. The cream is evaluated using various evaluation parameters such as pH, viscosity, spreadability, accelerated stability tests, spectrophotometric test, centrifugation test, and microbial stability etc. [1].

Numerous medicinal plants are used to cure a variety of illnesses, including fungus, eczema, and psoriasis. These illnesses are commonly treated using certain wild plants and their parts. The legend around medicinal plants in India is extensive. In India, a wide range of formulations have been used to treat burns, wounds, cuts, and other skin conditions. Herbal plant use dates back to the dawn of humankind. Natural medicine is said to be safe and inexpensive. Clinical study on herbs hopefully opens up new treatment options. The published research on medicinal plants from various families and their applications in the management of skin conditions is compiled in this review.

KEYWORDS: Cosmetic, Herbal cream, Turmeric, Papaya, Aloe-vera, Neem, Tulsi

INTRODUCTION

The availability of herbal cosmetics has led to a primary increase in demand for cosmetics. The public is paying increasing attention to herbal formulations due to their superior qualities and low adverse effect rates. Furthermore, it supplies the skin with the essential nutrients and moisture. The herbal cream is just an emulsion of water and oil. Every person on the planet aspired to look young and attractive, therefore we all took steps to tone up our skin and reduce wrinkles, acne, pimples, and other aging symptoms. Nowadays, the majority of us favor natural chemicals over synthetic ones, particularly when it comes to skin care. The skin should be nourished, moisturized, and hydrated with a natural skin cosmetic[2]. A natural face cream is an

essential and necessary component of any skin care regimen. They shield the skin's inner layer from harm in addition to providing nourishment. The most crucial component of any skin cream intended for cosmetic purposes is an antioxidant, which the skin desperately needs. The following natural components were used to prepare the herbal cream: neem, papaya, aloe vera, tulsi, and turmeric. These substances were selected based on their unique qualities. Aloe vera is applied as an anti-acne and moisturizing agent. Asian cosmetics like turmeric are good for giving skin a gold glow. It has antibacterial and anti-inflammatory qualities as well

Function of Skin

Skin is a vital organ that protects the body from infections and excessive water loss since it is the interface between the body and its surroundings. Other roles include insulation, controlling body temperature, feeling, storing and synthesizing vitamin D through UV light, protecting vitamin B folates, absorbing oxygen and medications, and being water resistant. Scar tissue is the body's way of trying to mend severely injured skin. This is frequently depigmented and discolored.

The skin covers the whole external surface of the body and is the largest organ within it. It is an important and remarkable organ. It might be a tough surface covered in nerves, organs, hair, and nails. It is made up of hair follicles that pierce the skin to receive hair strands. It serves as a partition separating the interior from the outside world. The epidermis, dermis, and hypodermis are its three constituent layers, all of which undergo complete alterations in their functions and life structures. The intricate structure of the skin acts as the body's first line of defense against infections, UV radiation, toxins, and mechanical harm. The thickness and surfaces of the skin are characteristic. Additionally, it controls the water's temperature and volume[1].

Some Common Plants Used In Preparation of Herbal Cream[1]

Herbal cosmetics are becoming more and more popular worldwide. They are a priceless gift from nature, and herbal formulations have long drawn interest due to their positive effects and negligible to nonexistent adverse effects. As a result, a few common plants used in the creation of herbal creams are detailed.

S/N	plant	Chemical constituent	Images	Uses
1	Aloe Vera[14]	Minerals, enzymes, hormones, lignin, salicylic acid, sterols, saponins, glucose, fructose, Vitamin A, C, E, B, B12, choline, aloetic acid, ethereal oil etc.		Its anti-inflammatory qualities can lessen wound or injury pain, swelling, and soreness. 1 Prevent or lessen facial wrinkles and dark spots 2 Soothes parched skin 3 Calms inflamed skin 4 Eliminate signs of aging 5 Combats acne and imperfections 6 Eliminate puffiness and dark circles 7 Eases psoriasis and eczema 8. Gets rid of dead skin cells 9 Sunburn treatment 10 Skin brightening 11 Skin hydration with essential oils 12 Skin prevention against early aging 13 Diminish the appearance of stretch marks
2	Neem[20]	Nimbin, nimbanene 6-desacetylnimbinene, nimbandiol, nimbolide,		1Protects against dandruff 2 It is suitable for use on the face and hair 3 Relieve dry scalp irritation to make it shiny and smooth 4 Boost brightness and counteract the aging impact 5 Promote better blood flow

		<p>ascorbic acid, n-hexacosanol, amino acids, 7-desacetyl-7-benzoylazadiradiolone, 7-desacetyl-7-benzoylgedunin Nimbiol, gedunin, azadirachtin.</p>		<p>6 Aid in the treatment of ulcers 7 Preserve a radiant, healthy complexion 8 Neem contains antibacterial qualities that help clear up acne 9 Neem lightens and fades acne scars 10 Neem has fatty acid and glycosides that have anti-inflammatory properties 11 Vitamin E and antioxidants found in neem help to minimize wrinkles. Neem's 12 fatty acids and vitamin E provide skin nourishment. 13 Assist in eczema relief 14 Address acne</p>
3	Tulsi[9]	<p>70% eugenol, carvacrol (3%), and eugenol-methyl-ether (20%). Seeds contain fixed oil</p>		<p>1 Organic immunity enhancer 2 Lower blood pressure and stress 3 Promote skin health 4 Help with kidney stones 5 Combat pimples 6 Encourages aging skin health 7 Relieves eczema-like skin conditions 8 Excellent for resolving skin issues 9 Rich in vitamin K 10 Exceptionally good for skin 11 Assisting with anti-aging 12 Managing blood sugar 13 Avoiding kidney stones 14 Lower your stress level 15 Avoid breakouts</p>
4	Papaya[7]	<p>Vitamin A, B, C, proteolytic enzymes papain, carpaine, chymopapain, antioxidants.</p>		<p>1 The wrinkle reduction was utilized. 2 It is utilized for the activity of enzymes; 3 It is utilized for its anti-inflammatory qualities 4 Manage acne 5 Eliminate dead skin cells 6 Sixth, enhance skin tone 7 Calms inflamed skin 8 Hydrates parched skin 9 Assist with losing weight 10 Assisting with skin health 11 Skin and healing 12 Increasing immunity 13 Packed with vitamins, minerals, and antioxidants 14 Preserve vision; 15 Aid in the treatment of hypertension; 16 Have anti-aging qualities 17 Treats cutaneous infections; 18 Avoids wrinkles 19 Address morning sickness</p>
5	Turmeric [20]	<p>Curcuminoids (5%) and essential oil (6%). The chief constituent of the colouring matter is</p>		<p>One naturally occurring anti-inflammatory substance 2 Strengthen your heart and guard against cancer and Alzheimer's 3 Strong antioxidants 4 Diabetes treatment and prevention 5 Skin health improvement 6 Depression</p>

	curcumin I (60%) curcumin III, curcumin II and dihydrocurcumin. zingiberene (25%), αphellandrene, sabinene, turmerone, arturmerone, borneol, and cineole.		treatment 7 Treats acne 8 Diminishes dark circles 9 May alleviate psoriasis and eczema 10 Purifies the skin 11 Aids in the healing of wounds 12 Encourages weight loss 13 Guard your body against oxidative stress 14 Antimicrobial substance
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Formulation:

Sr.No.	Ingredient	Role
1	Aloe vera gel	Anti-ageing, anti-inflammatory, moisturizer, reduce acne and pimples
2	Neem	Antibacterial, adds glow to the face
3	Tulsi	Promote wound healing, relieves skin dryness, itching and redness.
4	Turmeric	Glow your skin and antiseptic, anti-inflammatory
5	Ripe Papaya	Anti-wrinkle, cleansing, enzymes action, anti-inflammatory
6	Bees wax	Emulsifying agent
7	Liquid Paraffin	Lubricating agent
8	Borax	Alkaline agent
9	Methyl Paraben	Preservative
10	Distilled water	Vehicle
11	Rose oil	Fragrance

GENERAL METHOD FOR PREPARATION OF HERBAL CREAM[1]

Materials & Method (O/W, W/O)

↓
After adding the necessary amount of component to an appropriate amount of Base water, heat the mixture on a water bath to create a solution.

↓
Add the necessary amount of extracted herbs to the aforementioned solution.

↓
Drop by drop, add Solution in Solution 2. Once the two phases have been thoroughly combined, incorporate methyl paraben as a preservative.

↓
The created Polyherbal Cream was utilized 48 hours after being stored at room temperature for stability and analytical testing. It was placed aside for approximately an hour in a cool, dry location away from sunshine until it set completely.

↓
packed in a container and kept cold.

IDEAL PROPERTIES OF HERBAL CREAM

1. It shouldn't have any harmful effects when applied.
2. The ideal particle size should be present.
3. They ought to have an emollient impact.
4. Denser than a lotion, but yet holds its form, like a 50/50 oil and water emulsion.
5. They ought to disperse evenly across the skin's surface.
6. Preservative is needed to increase shelf life.
7. They ought to work with the pH of the skin.

CREAM'S BENEFITS

1. Hydrate parched skin again.
2. Rehydrate any very dry or rough skin areas.
3. Smooth calluses.
4. Have a pleasant scent and feel.
5. Take a moment to unwind.
6. Gently massage the abrasive areas of your body.
7. Make your skin look radiant

Evaluation of Cream

Evaluation of In-Vitro Skin Permeation[16]

A) Determination of Amount of Drug Deposited in Skin

Using a diffusion cell at 32 ± 1 °C, this method allows for a two-stage in vitro drug release research. In the first stage, in-vitro skin permeation is performed using 10 ml of PBS (pH 6.5) as the receptor media for ten hours. After 10 hours, the donor compartment is cleaned five times with warm (45°C) receptor fluids. The second stage operates without a donor phase and employs 50% v/v ethanol as the receptor solution for a further 12 hours. In this phase, the ethanolic receptor diffuses into the skin, upsetting any potential carrier systems that may have entered the tissue and deposited their drugs there. This allows the receptor to absorb both carrier-bound and free drug.

B) Evaluation of Skin Sensitivities Open Epicutaneous Test:

The irritancy profile of 6–8 guinea pigs is measured by applying 0.025mm at different concentrations over a 2 cm square area on their shaved flanks. Twenty-four hours after the test solutions are applied to the erythema, test areas are visually assessed. It is established the lowest irritating concentration (MIC) at which 25% of the animals do not react. Topical dose forms, as previously stated, are those intended for topical application to the skin in order to treat localized conditions. It's possible that some penetration below the stratum corneum won't happen, and that's okay either way. The topical medication is not meant to cause any noticeable absorption into the systemic circulation, in contrast to a Transdermal formulation. A topical substance is considered excellent if it (1) reaches a sufficient concentration in the target tissue.

Draize Test

The first predicted sensitization test approved by regulatory bodies was the Draize Sensitization Test (DT). Day 0 involves shaving one flank of twenty guinea pigs and injecting 0.05 ml of a 0.1% solution of test substance in saline, paraffin oil, or polyethylene glycol into the anterior flank. Through day 20, each animal receives a fresh injection of 0.1 ml of the solution every other day (challenge). Twenty flanks that had not had treatment before are shaved, and 24 and 48 hours after injection, 0.05 of the test solution is visually assessed. A positive response is defined as one that is greater in size or intensity than the controls' erythematous reaction.

Physical Prameter[7,14,20]

A]Irritancy

on the dorsal surface of the left hand. After that, the area was covered with cream, and the time was recorded. It is examined for irritating action, erythema, and edema, if any, after a 24-hour period.

Physical parameters

S.No	Parameters	Observations
1	Color	Faint Yellow
2	Odor	Pleasant
3	Texture	Smooth
4	State	Semi-solid

Irritancy test

Formulation Irritant NO effect of Erythema Edema

B] Wash ability

The wash ability test involved putting a tiny bit of cream on the hand and using tap water to wash it. Formulation was simple to wash.

C] Phase seperation

The prepared cream is stored in a tightly sealed container at room temperature, shielded from the sun, and monitored for a full day to determine the phase. No phase separation of formulation

D] pH

Take 0.5 g of cream and mix it with 50 milliliters of purified water. Then use a digital pH meter to determine its pH.

pH was found to be 7.96

E] Spreadibility

The amount of time it took for two slides to separate from the cream that was positioned between them under a specific strain was used to determine the spreadability. It takes less time to separate the two slides the better the spreadability. Glass slides of standard size were taken in two sets. After that, the cream mixture was put on a suitable-sized slide. Then, another slide was layered with the formulation. Then, when a weight or other prescribed load was placed on the upper slide, the cream between the two slides was uniformly pressed to form a thin layer. After that, the weight was taken off, and any leftover formulation that had adhered to the slides was scraped off. The lower slide was free to glide off of the upper slide.

The spreadibility of formulation was found to be better spreadibility

$$S = m \cdot l / t$$

m = weight on top sled

l = length shifted onto the glass slide

t = time.

F] Homogeneity

The homogeneity of the cream was observed. No indication of heterogeneity was observed.

CONCLUSION

The potential of plant extracts for use in cream is the main focus of the current study. Cream's use in cosmetic and therapeutic fields have grown significantly. The biological processes of the skin are influenced by the use of bioactive ingredients in topical formulations, which also supply the nutrients required for healthy skin.

There are several naturally occurring herbs that can be used in cream formulations in different ways. Compared to commercially available semisolid treatments, the current investigation showed that herbal cream is extremely safe and does not cause any hazardous or unfavorable effects.

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