

**A REVIEW ON BRIEF STUDY OF HERBAL LOTIONS**

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**ABSTRACT**

Structural and the water content of the epidermis is a main factor in maintaining skin smoothness and elasticity and preventing skin dryness. Occlusive products can greatly affect skin hydration by forming a barrier on the skin following the topical administration of oil-based formulation. Lotion maintains skin's hydration levels by locking in the moisture, keeping the skin healthy, soft, and supple. Unlike a cream, the lotions are less greasy and have more water content. Composition of herbal products will give ever best effect in our daily life as the composition of any single and individual product. The only motive behind to choose the mixture of herbal product was to bring true upon the effectiveness of these formulation without any side effects. Herbal cosmetics are products that are used to improve one's look. These formulations were evaluated with different evaluation parameters like Homogeneity, Appearance, after feel, Acid value, pH measurement, Irritancy test, Viscosity, Accelerated stability testing,

Subjective Properties, spread ability, Type of emulsion test, washability, Test statistical analysis, In vitro permeation studies, Test for thermal stability, Determination of total fatty matter, Determination of water content, Patch test. The herbal lotion passes all evaluation tests and has no side effect hence it is safe to use for skin.

**KEYWORDS:** Herbal lotion, Herbal cosmetics, Herbal drug extract, Neem, Coconut Milk, Honey, Almond oil.

## INTRODUCTION

The term "Herbal Cosmetics" refers to products that are produced utilizing a variety of approved cosmetic ingredients as a base, then one or more herbal compounds are added to provide specific cosmetic benefits. Lotions keep skin hydrated by retaining moisture, which keeps the skin smooth and healthy. Liquid preparations called lotions are designed to be applied externally without causing friction. They are put directly onto the skin with the aid of a substance that absorbs, like gauze or cotton wool soaked in it. Lotions can be used locally to provide cooling, calming, or protecting effects.<sup>[1]</sup> Storage: Keep lotions in a cool, dry location in an airtight container that is well-filled and closed.<sup>[2]</sup>

## DRY SKIN

Dry, sensitive, xerotic skin is the most common dermatological disorder impacting up to around 50% of the world's population. The way in which it develops as a result of both internal and external factors, is a complex process, and a 'dry skin cycle' has been proposed for its evolution. Incomplete corneocyte differentiation as well as epidermal hyper proliferation are typical features of this condition, resulting in the development of an immature stratum corneum with inferior barrier and reduced hydration lotion is important in managing dry skin and controlling the eczema and other dry skin condition because it deteriorates the skin condition leading to secondary inflammatory processes.<sup>[3]</sup>

### ➤ LOTION BENEFITS<sup>[4]</sup>

- Rehydrate dried skin.
- Replenish extra dry or rough spots on the skin
- Feel and smell good.
- Help yourself relax.
- Soften the roughest parts of your body.
- Make your skin glow.
- Reduce dry and dull patches on skin
- Enhance appearance of damaged skin.

**ADVANTAGES OF HERBAL LOTION<sup>[5]</sup>**

- Easy to manufacture Prepared Herbal Lotion are safe for skin as compared to marketed formulation.
- They do not provoke allergic reactions and do not have any negative side effects.
- Marketed product have chemicals in huge as well as in small amount but herbal lotion its name indicate as herbal means no chemical.
- Lotion keep skin healthy and glowing.

**RAW MATERIALS USED**

- Neem
- Saffron
- Coconut oil
- Honey
- Almond oil
- Aloe Vera
- Olive oil
- Sunflower
- Termeric

**USES OF HERBAL INGREDIENTS****Neem**

Neem oil contains fatty acids, antioxidants, and antimicrobial compounds, and these can benefit the skin in a range of ways. Research shows that these compounds may help fight skin infections, promote wound healing, and combat signs of skin aging. The stem, root bark, and fruit are used as a tonic and astringent. Some people apply neem directly to the skin to treat head lice, skin diseases, wounds, and skin ulcers; as a mosquito repellent; and as a skin softener.<sup>[6]</sup>

**Saffron**

It is derived from the flower of *crocus sativus*. Saffron is a scarlet color thread like pistil, which is believed to have originated primarily in Greece. Treating tanned skin means brightening the skin by treating the affected areas. Using saffron for skin whitening helps to brighten the skin and bring out the skin natural radiance. And to treat skin diseases like acne. Wound.<sup>[7-10]</sup>

**Coconut milk**

Coconut milk has a high fat content which can have an excellent moisturizing effect when applied topically dry skin, and it also acts as a sealant to lock in moisture and hydrate. It's easily absorbed, smoothes skin cells, and the fats help maintain your skin's elasticity. It is ideal moisturizer for the body which makes the skin smooth and textured.<sup>[11]</sup>

**Honey**

Honey is a natural antiseptic and anti-inflammatory that helps to heal breakouts of acne and prevent extra infections. Honey also reduces the redness and swelling of acne. It controls the accumulation of dust in the skin pores and absorbs the impurities from the pores. It reduces the dryness of skin by providing long-lasting hydration. Honey moisturizes the top layers of skin and helps to reduce wrinkles and fine lines. It is used as a wound-healing agent.<sup>[12]</sup>

**Almond oil**

Almond oil is an emollient that provides hydration, which can help moisturize and smooth skin. Almond oil is generally safe for sensitive skin because it is non-irritating and lightweight.

- It may act as an antioxidant.
- It may have anti-inflammatory action.
- It may act as an immunity booster.
- It may increase good cholesterol levels.
- It may have antibacterial activity.
- It may have anti-fungal properties.<sup>[13-14]</sup>

**METHOD OF PREPARATION HERBAL LOTION**

1. Weigh all the ingredients as per formulation.
2. Neem extract was taken in separate clean beaker then stirred it till it gets converted into little bit creamy form.
3. Then honey and saffron extract was added and mixed it.
4. Then another beaker was taken and in that Almond oil, Lavender oil, Vitamin. Oil from capsules and Glycerin was added.
5. Then this oil solution was slowly added in the first one beaker and mixed it thoroughly.
6. After mixing all ingredients rose water and coconut milk was added as per consistency.

**MARKETED FORMULATION MOISTURIZERS**

- Nivea
- Vaseline
- Dove
- Lakme
- Lotus
- Ponds
- Boroplus
- Cetaphil

Comparative study of various classes such as Emollients, Humectants, Occlusives, and Protein rejuvenators.

**THE VARIOUS CLASSES OF MOISTURIZERS<sup>[15]</sup>****Table No-01.**

Class	Emollients	Humectants	Occlusives	Protein Rejuvenators
Mechanism Of action	Saturated and unsaturated variable length hydrocarbons which helps in skin barrier function, membrane fluidity and cell signaling leading to overall improvement in skin texture and appearance.	Mostly low molecular weight substance with water attracting properties into the stratum corneum. Used along with other components to retain the water content.	Oils and waxes which form an inert layer on the skin and physically block trans epidermal water loss.	Small molecular weight proteins thought to help in skin rejuvenation by replenishing essential proteins.
Indication	Skin dryness, roughness, and routine skin care	Xerosis, ichthyosis	Xerosis, atopic dermatitis, prevention of contact dermatitis	Skin rejuvenation, aging, photodamaged skin
Adverse effects	Rarely contact irritant	Irritation	Messy to apply	Contact dermatitis
Examples	Cholesterol, squalene, fatty acids	Glycerol, propylene glycol,	Petrolatum, beeswax, mineral oil	Collagen, elastin, keratin

**Eg.1 DOVE MOISTURIZER**

Class	Emollients	Humectant	Occlusives	Protein Rejuvenators
<b>Mechanism of Action</b>	Deeply nourishes any dry or rough patches	Heat and humidity can stimulate	This is our petroleum jelly and beeswax that provides glow	Non oily feel, refreshed hydrated skin
<b>Indication</b>	Roughness	Low hydration	Water loss	Texture damage
<b>Adverse effects</b>	Dryness	Mild allergy	Increase penetration	Inflammation of skin

**EVALUATION TESTS OF HERBAL LOTION****1. Homogeneity**

The formulation were tested for homogeneity by visual appearance and by touch.

**2. Apperance**

The appearance of the lotion was observed by visual examination.

**3. After feel**

Emolliency, slipperiness and amount of residue left after the application of fixed amount of lotion was checked.

**4. Colour**

The color of the cream was observed by visual examination.

**5. Odour**

The odour of the lotion was tested by smelling.

**6. PH**

The pH between 4 -5 to 7 suitable for skin.

**7. Acid value**

The number of milligrams of Potassium hydroxide required to neutralize the free fatty acids present in one gram of fat.

$$\text{Acid Value} = n \times 5.61/w$$

n= number of ml of NaOH required

w= weight of substance

**8. Irritancy test**

The lotion was applied to a specific area of the left- hand dorsal surface. Irritancy, erythema, oedema were checked up to 24hrs. & reported.

**9. Viscosity**

Viscosity of the formulation was determined was Brookfield or Ostwald viscometer at 100 RPM, using spindle no. 7 at temp 25o C. The determinations were carried out in triplicate and the average of three reading was recorded.

**10. Accelerated stability testing**

Accelerated stability testing of prepared lotion was conducted for 2 most stable formulations at room temp, studied for 7 days. The formulations were placed at 40oC + 1oC for 20 days.

**11. Subjective properties**

Consistency, feel on application and irritation parameters are determined.

**12. Type of emulsion test**

Dye solubility and dilution test was conducted to determine the type of emulsion formed.

**13. Sensitivity test**

A portion of lotion was applied on the forearms of 6 volunteers and left for 20 minutes. After 20 minutes anykind of irritation if occurred was noted.

**14. Washability test**

A portion of lotion was applied over the skin of hand and allowed to flow under the force of flowing tap waterfor 10 minutes. The time when the lotion completely removed was noted.

**15. Spreadability**

Spreadability is the ability of a cream to spread on the skin. It plays an important role in the administration of a standard dose of a medicated formulation to the skin and the efficacy of a topical therapy.

**16. Removal test**

The ease of removal of the cream applied was examined by washing the applied part with water.

**17. Stability test**

To check the microbial growth, the formulation was placed in the center of the petri dish, and then the plates were incubated at 37°C for 72hrs.

### 18. In vitro occlusive test

Formula

% Loss = (Difference Between initial and final weight ÷ Final weight of beaker) \* 100

% Occlusivity =  $a-b/a * 100$

Where,

a = % loss of water from uncovered beaker or filter paper.

b = % loss of water from covered filter paper with sample.

### CONCLUSION

So the herbal cosmetics are the most important part of the today's modern life as they are used for the beautifications purpose mainly, their demand increases vigorously. Herbal cosmeceuticals are natural products whose ingredients have properties to rejuvenate and protect the skin from environmental pollution, chemicals, atmospheric temperature fluctuation, Ultraviolet A and Ultraviolet B radiation, wrinkling, hyper pigmentation (excessive tanning) and inflammations. The present review focuses on scientific account on use of herbs in cosmetics.

So from all the study of Herbal Cosmetics we can conclude that "The Herbal Cosmetics are the most significant alternative for the synthetic cosmetics".

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