



## **Review on Formulation and Evaluation of Multipurpose Herbal Cream**

*Miss. Ashwini Vitthal Dubule<sup>1</sup>, Mr. Patil Ravikumar R.<sup>2</sup>*

<sup>1</sup>Student, L.N.B.C. Institute of Pharmacy, Satara

<sup>2</sup>Asst. Prof. , L.N.B.C. Institute of Pharmacy, Satara

### **ABSTRACT -**

Herbal cosmetics are the preparations used to enhanced human appearance. The main dream to the current study is to prepare the herbal cream like multipurpose uses. The aim of the present research was to formulate the herbal cream for the purpose of moistening, nourishing, lightening and treatment of various diseases of skin. Different crude drugs are used in which the formation and evaluation of herbal cream that drugs; Aloe barbadensis (Aloe Vera leaves) such as anti-inflammatory activity, anti-wrinkle and moisturizer. Azadirachta Indica (Neem- leaves) such as the property of antiseptic, astringent and to treat of ring worm infection..Curcuma longa (Turmeric-rhizomes) used as antiseptic and for skin nourishment, wound healing and antioxidant property. Accelerated stability testing of three final sample has been conducted in the environmental chamber with room temperature. All products were found to be stable with no sign of phase separation and no change in the colour. The patch test for sensitivity testing has also been done and no evidence of skin irritation and allergy signs. Thus herbal cosmetics formulation is safe to use.

Keywords: Herbal cream, drugs; Aloe barbadensis (Aloe Vera leaves), Azadirachta Indica (Neem-leaves), Curcuma longa (Turmeric-rhizomes), multi purpose cream, cosmetics.

### **Introduction**

The concept of beauty and cosmetics is as ancient as mankind and civilization. Indian herbs and its significance are popular worldwide. An herbal cosmetic have growing demand within the world market and is a useful gift of nature. Herbal formulations always have attracted considerable attention due to their good activity and relatively lesser or nil side effects with synthetic drugs. Herbal cosmetics are defined because the beauty products which posses desirable physiological activity like healing, smoothing appearance, enhancing and conditioning properties due to herbal ingredient.

Now-a-days the usefulness of herbs within the cosmoceutical production has been extensively increased in care system and there's an excellent demand for the herbal cosmetics. Cosmetics are the substances intended to be applied to the physical body for cleansing, beautifying, promoting attractiveness, and altering the looks without affecting the body's structure or functions.

But the usage of synthetic products becomes very harmful from while for the youth also as our surroundings . Various synthetic compounds, chemicals, dye and their derivative proved to cause various skin diseases having numerous side effects. Thus we are using herbal cosmetics the maximum amount as possible. The basic idea of skin care cosmetic lies deep within the Rigveda, Yajurveda, Ayurveda, Unani and Homeopathic system of medicine .

These are the products during which herbs are utilized in crude or extract form. These herbs should have sorts of properties like antioxidant, anti- These herbs are selected on the idea of a standard system and scientific justification with modern uses. A herbal cream which will give effective protection to skin and free from any toxicity or toxic residue or any irritation when regularly used and will even be cosmetically acceptable.

Creams are semi-solid preparations containing one or more medicinal agents dissolved or dispersed in either a water-in-oil emulsion or an oil-in-water emulsion or in another type of water-washable base.

Cream can be classified as oil in water and water in oil emulsion. It is applied on surface or superficial part of skin and it's advantage is to remain for a longer duration of time on site of application. The main function of a skin cream is to provide protection from different environmental condition, weather and provide soothing effect to the skin.

The general types of creams are cold, cleansing, vanishing, foundation, massage, night, hand and body creams. The main purpose of our work is to formulate a herbal cream which can produce multipurpose effect, like moisturizer, reduce acne and irritation, reduce skin conditions like psoriasis, eczema, wrinkles, dry skin, rashes etc. and also add glow to the skin.

Aloe vera, Neem and Turmeric, these three herbal ingredients are used in our preparation. Aloe vera acts as Anti-ageing, anti-inflammatory, moisturizer, reduce acne and pimples. Neem is used to promote wound healing, relieves skin dryness, itching and redness and it is also used to reduce pigmentation and scar. Turmeric is used as antibacterial and adds glow to the face.

---

## Health Benefits of Turmeric



Figure 1: Turmeric powder

**Synonym** : Curcuma Domestica , Curcuma longa.

**Biological Source** : Turmeric is a product of *Curcuma longa*, a rhizomatous herbaceous perennial plant belonging to the ginger family Zingiberaceae, which is native to tropical South Asia.

**Family**: Zingiberaceae.

## Medicinal Uses

• **edicinal uses :**

- 1) Natural Anti- inflammatory
- 2) Anti-cancer effect
- 3) Powerful Anti –oxidant
- 4) Protect Heart Diseases
- 5) Treat or prevent Diabetes
- 6) Prevent Alzheimers Disease
  
- 7) Treat Depression
- 8) Improves skin Health
- 9) Prevent Eye Degeneration
- 10) Prevent Age related chronic Diseases
- 11) Treating Rheumatoid Arthritis
- 12) Protect your body from free Radicals
- 13) ●Help in Osteoarthritis

**Benefits of Alovera for face****Figure 2: Aloe vera plant**

Synonym: Aloe barbadensis , Kumari

**Biological Source:** The biological source of aloe is dried latex of leaves of it. It is also known as curacao aloe, cape aloe and socotrine aloe.

**Family:**

- 1) Alovera helps in keeping your face healthy and gives you a natural shine.
- 2) Alovera is rich in moisturizing properties, it helps in removing dead cells.
- 3) Alovera is very beneficial for the people with dry and cracked skin.
- 4) Alovera also prevent or reduce wrinkles and dark spot of your face.
- 5) Alovera gives protection against the harmful ultraviolet rays of the sun, which protects you from sunburn
- 6) Alovera helps in keeping your face healthy and gives you a natural shine.
- 7) Alovera is rich in moisturizing properties, it helps in removing dead cells.
- 8) Alovera is very beneficial for the people with dry and cracked skin.
- 9) Alovera also prevent or reduce wrinkles and dark spot of your face.
- 10) Alovera gives protection against the harmful ultraviolet rays of the sun, which protects you from sunburn

**Fig Neem leaves**

**Synonym.** Azadirachta indica, neem, nimtree , Indian lilac.

**Biological Source :**Neem consists of almost all the part of the plant which are used as drug of Azadirachta indica

**Family:**

- 1) Acts as a shield against dandruff.
- 2) It can be used for both face and hair.
- 3) Treats dry scalp making it smooth and shiny.
- 4) Capable of removing blackheads and dullness in face.
- 5) Increases radiance and produces antiageing effect

Topical skin infections commonly occur and often present therapeutic challenges to practitioners, despite the numerous existing antimicrobial agent available today. The necessity for developing new anti microbial means has increased significantly due to growing concerns regarding multi drug resistant bacterial, viral and fungal strains.

Consequently, attention has been devoted to safe, new and/or alternative antimicrobial materials in the field of antimicrobial chemotherapy. Common example for topical skin infections include diaper rash, cold sores, and tinea (also called pityriasis) versicolor.

**•Types of cream****On the basis of phase****1. Oil-In-Water****As- Fluocinolone acetonide cream****2. Water-In-Oil As- old cream****Classification of cream on the basis of function:**

- cleansing and cold cream
- foundation and vanishing cream
- night and massage cream
- head and body cream
- all purpose and general cream

***Cream***

Cream consists of medicament dissolved or suspended in water

removeable or emollient bases, classified as water-in-oil or oil-in-water and intended for application on the skin or accesible mucus membrane to provide localised and sometimes systematic effects at the site of application. The function of a skin cream is to protect the skin against harshness from environment and any dry condition of the skin.

A skin cream should aid the scheme in carrying out its normal functions, that is restoring moisture to dry skin, allowing the elimination of waste matter through the pores, and the cooling of the body by evaporation of water (perspiration) and radiation, thus aiding in the maintenance of the normal body temperature.

**Herbal cream**

The herbal approach of proper skin care is principally based on three essential steps

- Cleanse
- Nourish
- moisture

Whatever maybe the type of skin; these three steps are external care of the skin to protect from constant effect of environment, stress and skins natural process of sale degradation decay.

Therefore in order to help the skin look young and radiant.

- exfolation to remove dead skin cells.
- epidermal stimulation for new cell growth.
- penetrating moisture and nutrients to replenish all layers of skin.
- antioxidant properties for cellular rejuvenation and repair.

## Skin

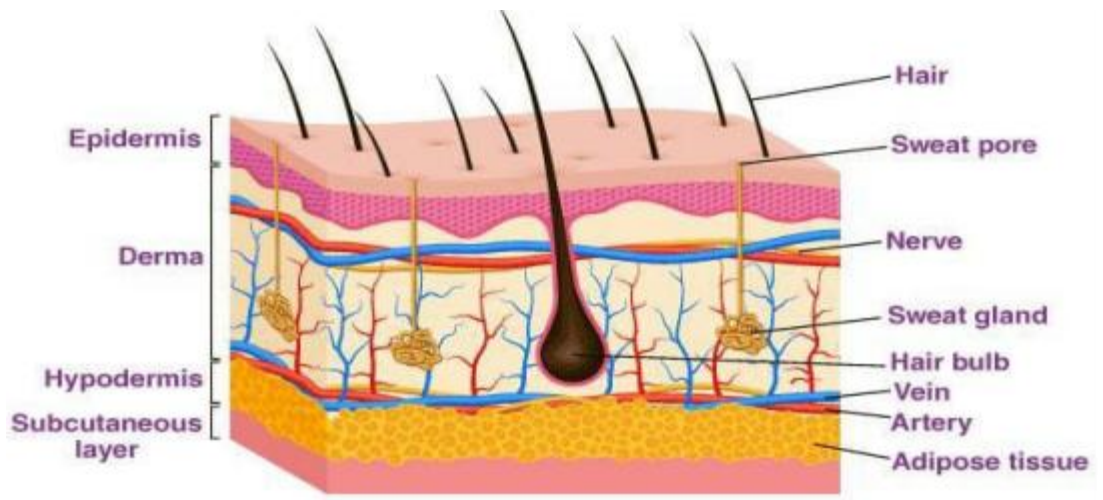


Figure 4 : skin structure

The skin is largest organ in human body. For the average adult human, the skin had surface area between 1.5-2.0 square metres. The thickness of the skin varies considerably over all parts of the body, and between men (1.3mm) and women (1.26mm) and the young and the old skin is composed of three primary layers: the epidermis, the dermis and the hypodermis. pH of skin where is from 4-5 to 6.

## Epidermis

Epidermis is the outermost layer of the skin. The epidermis contains no blood vessel and is nourished by diffusion from the dermis. The main types of cells which make up the epidermis are keratinocytes, melanocytes, Langerhans cells and Merkel cells. The epidermis helps the skin to regulate body temperature. Epidermis is divided into the following five sub-layers or strata:

Stratum corneum  
Stratum lucidum  
Stratum granulosum  
Stratum spinosum

Stratum germinativum (also called stratum basale)

## Dermis

The dermis is the layer of tissue beneath the epidermis that consists of epithelial tissue and cushions the body from stress and strain. The dermis is tightly connected to the epidermis by basement membrane. It contains hair follicles, sweat gland, sebaceous gland, apocrine.

## Hypodermis

The hypodermis is not part of the skin, it lies below the dermis. It consists of loose connective tissue, adipose tissue and elastin. The main cell types are fibroblasts, macrophages and adipocytes. Fat serves as padding and insulation for the body.

## Functions

• Skin plays numerous vital roles in the physiology of the body:

- Sensation: For the detection of stimuli of temperature, touch, pressure, and pain there are numerous receptors and nerve endings present on the skin.
- Protection: The skin acts as a physical barrier which helps in protecting the deep-seated organs and tissues from microbial invasion, dehydration, UV radiation, and physical absorption.
- Thermoregulation: An increase in body temperature results in sweating and when this sweat gets evaporated from the skin surface, it cools the body (lowers the body temperature).
- On the other hand, in case of decreased body temperature sweat production gets reduced which helps in the conservation of heat in the body.
- Immunity: It provides immunologic information obtained during antigen processing to the appropriate effector cells in the lymphatic tissues.
- Excretion: The sweat released from skin excretes out the toxic substances, ions, and several other compounds.
- Blood Reservoir: The dermis is highly vascularised. In resting stage, the blood vessels in the skin of an adult carry about 8-10% of the total blood volume. At the time of vigorous activity, the rate of blood flow increases, thus leading to dissipation of extra body heat.
- Drug Delivery Route: Skin acts a route for delivery of drugs (transdermal patches). The transdermal drug delivery system involves the absorption of drug through systemic circulation by transdermal patches. The lipid soluble drugs and substances with low molecular weight easily permeate through the skin, e.g., nitroglycerin, hormones, scopolamine, nicotine, etc.
- Endocrine Function: Skin helps in biosynthesis of Vitamin D. Ultraviolet light is essential for the first stage of Vitamin D formation.

### Aim and Objective

-To formulate and evaluate herbal cream using Aloe vera gel, Dimethyl sulfoxide, Neem extract (*Azadirachta indica*) and Turmeric (*Curcuma longa*) to give multipurpose effect.

-To set the formula for Herbal cream by using different herbs.

- to formulate herbal cream by using proper procedure.

- to evaluate formulated product by using different test like pH, spreadability and washability, etc.

---

## Conclusion

By using Aloe vera gel, Neem and Turmeric the cream showed multipurpose effect and all herbal ingredients used showed different significant activities. Based on the results we can say that all three formulations F1H, F2H and F3H were stable at room temperature and can be safely used on the skin.