

Review Article Formulation and Evaluation of Aloe Vera Cold Cream

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Abstract: *Since the beginning of time, creams have been valued as essential topical preparations in cosmetic products because of how simple it is to apply and remove them from the skin. Pharmaceutical creams are used for a number of aesthetic purposes, including cleansing, beautifying, modifying look, moisturising, etc. The general population and society can safely employ these semi-solid preparations. The products used to enhance and beautify human appearances are known as herbal cosmetics. The current study's objective was to design and assess herbal cold creams that contained plant extracts made utilising the water in oil method for the goal of moisturising and nourishing the skin. Neem oil and turmeric extract are used to make the cold cream. Utilising several evaluation techniques, the created product's quality was evaluated. The physical characteristics of the cream formulation did not alter. During the research study period, the cream formulation demonstrated good consistency and spreadability, There was no discernible change in the-created cream's viscosity, aroma, or visual appearance during the research period, according to stability measures.*

Keywords: cream formulation

I. INTRODUCTION

Cosmetics are the products which are generally used to beautify the skin and also to purify the skin. The cosmetics are the word derived from Greek word – 'kosmesticos' which means to adorn. From that time the materials which are used to promoting appearances or to beautify the skin are called as cosmetic. From ancient time till now people are still using polyherbal or herbal cosmetics for the beautification of skin. Cold cream is the water in oil emulsion.

Cold cream gives the prolonged contact time in the site application as compared to the other semisolid dosage form or formulation.

They give elegance to the skin and it is not that much greasy. Due to the oil phase, it gives an emollience to the skin.

The function of the cold cream is for restoring moisture to dry skin, it allows to eliminate the waste materials from the pores and also cools the body. It is easily watered washable and easy to wash away. They are non-irritating when applied on the skin.

The water phase provides the skin with additional protection. At body temperature, it becomes liquefiable. It enters the skin through the pores of the skin's epidermis. Galen, a Greek physician who created the cold cream formulation in the second century, is credited with developing it. He made a mixture of water, beeswax, and rose petals. These were the main moisturiser

components he used to create the cold cream. Galen's cream was the common name for this skin lotion. Cold creams can be used to remove temporary tattoo marks and then removed with a cotton ball in addition to moisturising the skin.

FORMULATION :

Ingredients	Quality taken(20gm)	Used of ingredients
Aloe Vera Gel	0.75gm	Hydrating agents
Borax	0.16gm	Emollient
Methyl parapen	0.02gm	Preservatives
Liquid paraffin	10ml	Laxative
Water	6ml	Diluents
Perfume	0.62ml	Fragrance
Bees Wax	3.2gm	Emulsifying Agents

GENERAL INGREDIENTS USED IN COLD CREAM

Apparatus Used:

- Measuring cylinder
- Spatula
- Pipette
- Water bath
- China disc
- Glass rod
- Thermometer

Raw Materials Used:

Mineral and vegetable oils, together with fatty alcohols, fatty acids, and fattyesters, emulsifying agents, preservatives, and filtered water, can all be used to create cold creams.

There should be the following four main compounds

- Oil
- Water
- Emulsifier
- Thickening Agen

TOPICAL DRUG DELIVERY :

TOPICAL DRUG DELIVERY The administration of medications to the human body through a variety of routes, including oral, sublingual, rectal, parental, topical, inhalation, etc., has been used to treat illnesses during the past few decades. Topical delivery is the application of a drug-containing formulation to the skin to treat cutaneous disorder or the cutaneous manifestations of a general disease (such as psoriasis) directly with the goal of containing the pharmacological or the effect of the drug to the surface of the skin or within the skin. Semisolid formulations in all their variety dominate the system for topical delivery, but foams, spray, medicated lotions, and other forms of topical administration are also used

ADVANTAGE OF TOPICAL DRUG DELIVERY

- Preventing of first pass metabolism.
- Convenient and simple to use.
- Prevention of risk

The drawbacks of intravenous therapy and the various conditions of absorption, such as PH changes, the presence of enzymes, the rate at which the stomach empties, etc Continuous drug input can achieve efficacy with a lower total daily dose of medication Prevent intra- and inter-patient fluctuations in medication levels The medicine or its excipients may cause skin irritation or dermatitis Because they are poorly fat soluble and have a large molecular weight, most medications are not absorbed through the skin or mucous membranes.

Very low absorption

It can only be used for medications whose plasma concentrations must be extremely low to work

PHYSIOLOGY OF HUMAN SKIN

• Epidermis:

The thickness of the stratified, keratinized squamous epithelium that makes up the epidermis, the skin's outermost layer, varies depending on where on the body it is located.

The palms of the hands and the bottoms of the feet have the thickest layer. There is no blood present. The dermis' interstitial fluid, which supplies oxygen and nutrients and drains away as lymph, bathes the deeper layers of the epidermis but does not reach the veins or nerve terminals of the epidermis.

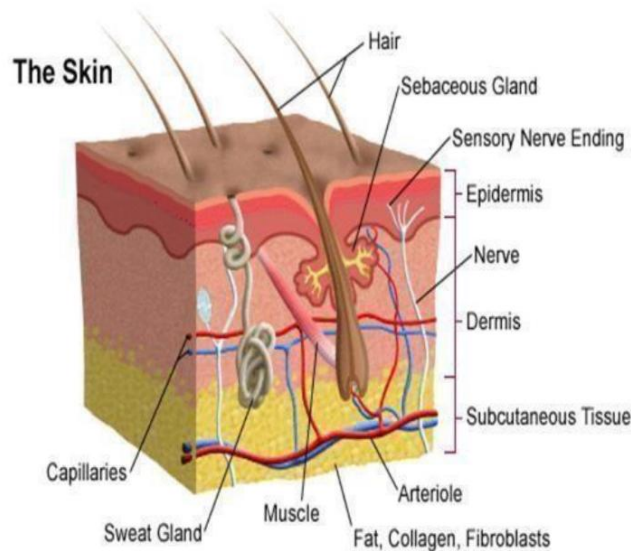


Fig 1 Structure of Skin

Dermis :

The dermis is elastic and resilient. It is made of connective tissue, and the matrix contains elastic and collagen fibres woven together. Stretch marks, also known as permanent striae, are a result of the skin's elastic fibres rupturing when it is overstretched during pregnancy and obesity. Water is held together by collagen fibres, which also give the skin its tensile strength. As collagen fibres age, wrinkles start to appear. The primary cells in the dermis are mast cells, macrophages, and fibroblasts. Areolar tissue and various levels of adipose (fat) tissue are found under the skin's lowest layer.

Cold cream :

Cold cream is an emulsion of water and certain fats that is used to smooth skin and remove makeup. It typically contains beeswax and other fragrances. The European Pharmacopoeia refers to it as Fatty Cream. Water and oil are combined in every type of cold cream. The water in the cream evaporates as you apply it to your skin, giving you a cooling sensation. Most Likely, the name came from this chilling effect. Moisturiser or moisturising cream are other names for cold cream. Cold cream needs to behave emolliently. When used, it should feel cool to the touch and leave no Occlusive oil film on the skin.

Ideal Characteristics of Cold Cream :

Normally, it shouldn't be diluted. The cold cream's pH should ideally range from 4.6 to 6.0. It should have the ideal consistency to allow for easy Application and removal from the container, Following external application, the skin should experience a cooling effect. To prevent water from evaporating from the skin's surface, it must create a thin, waxy protective coating on the skin. Should have a quicker emollient action so that extremely dry skin can quickly expand and soften. Ointments tend to be more oily. Creams often have a white to off-white colour, although they can also have other colours, such yellow (Nystatin Cream USP) Easily applied to skin Free of dusty components

USES OF COLD CREAM :

The contents of a cream determine the uses of cold cream, i.e., functional ingredients determine the uses of cold cream. These are the primary applications for cold cream: In order to maintain the skin's moisture balance and prevent dry skin diseases, medicated cold cream is primarily utilised as a topical pharmaceutical dosage form for the treatment of skin. It is one of the basic applications for non medicated cold cream.

- As a makeup removal and cleansing preparation. In order to provide an emollient effect
- To give the skin an oiled barrier of protection. As with sunscreen components, additionally offer a chemical barrier.
- As a vehicle for pharmaceutical ingredients such diflucortolone valerate in ointments.
- To eliminate skin contaminants that are soluble in oil

FUNCTIONS AND USES OF THE INGREDIENTS USED IN THE PREPARATION :

Bees Wax:

- It functions as an antioxidant. Beeswax is frequently included in the development of skin moisturizers and body creams since it supports moisturizing and softening as well as encourages cell repair, making it a fantastic ingredient to employ when creating products specifically for dry and rough skin types
- Beeswax serves as an emollient (skin softening) and humectant (attracts water and aids in absorbing it in the skin) in this form of body care.
- which works here as a stiffening agent, which increases the viscosity of cold cream besides this, beeswax also shows healing property and this is a good source of vitamin A. It is a common ingredient in most of the cosmetic products
- Like – skin moisturizer, body creams, lip gloss, lip balm, eye shadow, lipstick.
- Beeswax also as medicinal benefits to its use in body products as well.

• Beeswax as anti inflammatory, antiviral, and antibacterial properties. These 3properties make beeswax very helpful for the healing of smaller wounds and injuries andcan also be used for slight skin irritations tooBeeswax also has therapeutic properties and is a strong source of vitamin A, and it actshere as a stiffening agent, increasing the viscosity of the cold cream

The majority of cosmetic goods often contain it as an ingredient.

For example, lip gloss, lip balm, eye shadow, lipstick, body creams,and moisturisers for theskin.

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