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Research Article

Formulate And Evaluate Of Herbal Cold Cream

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ABSTRACT

Herbal cold creams are skincare products formulated with natural ingredients, typically herbs and plant extracts, to soothe and moisturize the skin, especially during colder weather when skin tends to dry out more easily. These creams often contain ingredients such as aloe vera, chamomile, lavender, calendula, and mint, known for their calming and hydrating properties. The herbal extracts in these cold creams are often chosen for their ability to nourish and protect the skin, providing relief from dryness, irritation, and redness. Some formulations may also include ingredients like shea butter, coconut oil, or olive oil to enhance moisturization and create a protective barrier on the skin. The use of herbal ingredients in cold creams appeals to those seeking natural alternatives to conventional skincare products, as they are perceived to be gentler on the skin and free from potentially harmful chemicals. Additionally, the aromatic qualities of many herbal extracts can provide a pleasant sensory experience during application. Overall, herbal cold creams offer a holistic approach to skincare, combining the benefits of botanical ingredients with the moisturizing properties of traditional cold cream formulations to promote healthy, nourished skin, especially in harsh environmental conditions. : Cold Cream was first invented by Galen a famous Greek physician pharmacist in the Roman Empire of First century AD. Cold Cream is an emulsion of water and fat used cosmetically for softening and cleansing the skin. To formulate and evaluate cold cream from natural ingredients such as Borax, Neem oil, Rose water, Honey, Aloe vera, Coconut oil etc. Cream was prepared by using Natural Ingredients which have not side effect on skin. Borax eradicate skin bacteria and remove dead skin cells and excess oil, Beeswax that helps the oil penetrate the skin, Neem oil is used to treat dry skin and wrinkles, Rose water is used as favouring agent, Honey helps in keeping moisturizing skin, Aloe vera is used to keep skin soft, Coconut oil to reduce itchiness. Cream was formulated and evaluated by different evaluation parameters such as pH, viscosity,

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spreadability physical appearance and irritancy test. Stability testing for prepared formulation was performed by stirring it at different temperature condition for time period 24th for 1 week. To know parameters like odour, pH, smoothness of lotion.

INTRODUCTION

In the realm of skincare, the quest for products that not only nourish but also resonate with nature's gentle touch has led to the resurgence of herbal cold creams. Departing from synthetic compounds, these creams harness the power of botanical extracts to provide a natural solution for moisturizing and protecting the skin, particularly in colder climates. Herbal cold creams represent a fusion of traditional wisdom and modern science, drawing upon centuries-old herbal remedies and contemporary skincare formulations. By incorporating ingredients like aloe vera, chamomile, lavender, calendula, and mint, these creams offer a holistic approach to skincare, catering to those seeking gentle yet effective solutions. This introduction will delve into the essence of herbal cold creams, exploring their formulation, benefits, and growing popularity in today's beauty landscape. From their soothing properties to their environmentally conscious appeal, herbal cold creams stand as a testament to the enduring allure of nature's bounty in skincare. 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 of application as compared to the other semisolid dosage form or formulation. They give elegancy 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. Uses of cold creams are also related to the creation of children's face paint.

Aim: Formulation and evaluation of herbal cold cream by using natural ingredient

Objective:

1. To prepare the cream by using the emulsification technique.
2. To made safety, efficacy and quality of Herbal cold cream.
3. They are non-irritant applied on the skin.
4. To explore the many aspects of the rich traditional Indian herbal medicine.
5. To give knowledge gained during the course in evaluating the usefulness of herbal formulas.
6. To formulate and evaluate a herbal cold cream for shining skin by using natural herbal product .
7. To make a cold cream ideal for all skin types.
8. To give the useful benefits of cold cream on human use as cosmetic product.

Material and methodology :

Plant profile :

Synonym :- curcumae longa.



Botanical Name :- Curcuma aromatic

Family :- Zingiberaceae

Biological Source :-

Turmeric is a product of Curcuma longa, a rhizomatous herbaceous perennial plant belonging to the ginger

Species :-

C. Longa

Uses :-

Anti-inflammatory, Antioxidant,



Fig no 1 Turmeric

Formulation Table:-

Sr. No.	Ingredient	Quantity (ml/gm)	Uses of ingredient
1	Turmeric extract	10ml/5gm	Inflammation
2	Bees Wax	25gm/12.5gm	Emulsifying agent
3	Liquid Paraffin	15gm/7.5gm	Laxative
4	Borax	5.0gm/2.5gm	Emollient
5	Rose oil	2.0ml/1.0ml	Perfume
6	Distilled water	Qs	Diluent

Procedure :-

1. Take 200mg of turmeric and place it in a conical flask.
2. Cover the mouth of the flask with a cotton plug.
3. Allow the mixture to sit for 72 hours with occasional shaking.
4. After 72 hours, filter the solution and dry the filter until it is completely dry.
5. Melt beeswax in a china dish on a hot plate at 70°C.
6. Dissolve borax in a 100 ml beaker and heat it along with olive oil on a hot plate at 70°C.
7. Slowly add the oil phase to the aqua phase with constant stirring until it reaches 45°C to 50°C. Then add the herbal drug and perfume with constant stirring.
8. To summarize, 200 gm of turmeric is mixed with 500 ml of water, and the mixture is left to sit for 72 hours before being filtered and dried. Beeswax is melted and borax is dissolved in

olive oil, and the two phases are combined with constant stirring.

9. Finally, the herbal drug and perfume are added to the mixture with constant stirring.

Evaluation Test:-

1. Organoleptic Properties :

The organoleptic properties such as color, odor and appearance was observed.

2. Determination of pH :

The pH value of freshly formulated emulsion was determined using a digital pH meter at room temperature.

3. Determination of homogeneity :

The homogeneity of the herbal preparation was observed by visual appearance and by touch.

4. Determination of spread ability :

The term spreadability is expressed as the extent of the area to which the topical application spreads when applied to the affected region of the

skin. The therapeutic efficacy of the herbal formulation is also dependent on its spreading range. Thus, it is necessary to determine the spreading ability of the prepared formulation. For the determination about 3 gms of cream was applied between the two glass slides and pressed to obtain a thin film of uniform thickness. A weight of 5 gm was placed over the top slide to apply the required pressure for 5 minutes. Followed by addition of about 10 gms of weight in a pan and the upper slide was subjected to pull with the help of a string attached to a hook. The time taken by the two slides to slip over each other by a distance of 10 cm under certain load was noted. Following is the formula to calculate the spreadability of the prepared formulation. $S = m \times L/T$ Where, Ssolubility m- weight tied to upper glass slide Llength moved on glass slideT- time taken. The results were carried out in a triplicate manner and the average of these readings were noted

5. Determination of type of smear :

This test was conducted by the application of cream on the skin surface of a human volunteer for its greasiness. After application, the type of smear was observed.

6. Determination of viscosity :

The viscosity of the prepared emulsion was determined by using Brookfield viscometer. Spindle number S-64 at 20 rpm was used at a temperature of 25°C and was determined by taking an average of three readings.

7. Irritancy test :

The formulated cream shows no redness ,edema , irritation and inflammation during studies. The formulated cream is safe to use.

8. Dilution test :

In this test type of emulsion is determined by diluting the emulsion either with water or oil. The emulsion is completely miscible with water if it is o/w type, as the dispersion medium is water and

separates out if it is w/o type of emulsion. Similarly, w/o type of emulsion is miscible, if the emulsion is dissolved in oil but o/w type of emulsion is immiscible in oily liquid .

9. Test for microbial growth :

These test were carried out to determine the microbial contamination of the prepared formulation in an agar medium. The prepared creams were inoculated on the plates of agar plate medium using streak plate method and a control was prepared without the cream. These plates were placed into the incubator and were incubated at 37°C for 24 hours. After the incubation period, the plates were taken out and observed for microbial contamination in comparison with the control. These tests were carried out to determine the microbial contamination of the prepared formulation in an agar medium. The prepared creams were inoculated on the plates of agar plate medium using streak plate method and a control was prepared without the cream. These plates were placed into the incubator and were incubated at 37°C for 24 hours. After the incubation period, the plates were taken out and observed for microbial contamination in comparison with the control.

10. Patch test :

About 1-3 gms of the formulated creams was evenly applied on sensitive region of the skin surface such as the skin under the lower jaw. Thecream for testing was applied on an area of 1 sq.m of the skin surface and the site was inspected after 24 hours of application.

11. Dye Test :

The Scarlet red dye is mixed with the cream. Place a drop of the cream on a microscopic slide then covers it with a cover slip , and examines it under a microscope .If the disperse globules appear red the ground colorless .The cream is w/o type. The reverse condition occurs in o/w type cream i.e the disperse globlules appear colorless .

RESULT AND DISCISSION :-



Physical observation :-

Sr No.	Parameter	F1	F2	F3
1	Colour	Yellow wish green	Yellow wish green	Yellowish green
2	Odour	Pleasant	Pleasant	Pleasant
3	Texture	Smooth	Smooth	Smooth
4	Appearance	Semi solid	Semi solid	Semi solid

Wash-ability observation :

Sr no.	Formulation	Wash ability
1	F1	Easily washable
2	F2	Easily washable
3	F3	Easily washable

PH Observation :

Sr. no.	Formulation	PH
1	F1	7.57
2	F2	7.52
3	F3	7.51

Spread ability observation:-

Sr. no.	Formulation	Spread ability
1	F1	Easily spread able
2	F2	Easily spread able
3	F3	Easily spread able

Viscosity observation:-

Sr. no.	Formulation	Viscosity
1	F1	48880cp
2	F2	48890cp
3	F3	48870cp

CONCLUSION :-

From the above results it is concluded that the formulated cream showed good consistency and spread ability, homogeneity, pH, non-greasy and there is no phase separation during study period of research. From the above study it can be concluded that the polyherbal cold cream is safe to use as it is developed from herbal extract. Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones. So, the values of herbs in the cosmeceutical has been extensively improved in personal care system and

there is a great demand for the herbal cosmetics nowadays. An herbal cream which is non-toxic, safe, effective and improves patient compliance by the utilization of herbal extracts would be highly acceptable than synthetic ones. By using Neem oil , Aloe Vera, coconut oil cream showed a anti-bacterial effect and all these herbal ingredients showed significant different activities. Based on results and discussion it can be safely used on skin. From the above results it is concluded that the formulated cream showed good consistency and spread ability, homogeneity, pH, and there is no phase separation during study period of research. From the above study it can be concluded that the herbal Aloe-vera cold cream is safe to use as it is developed from herbal extract. Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones. So, the values of herbs in the cosmeceutical has been extensively improved in personal care system and there is a great demand for the herbal cosmetics nowadays. An herbal cream which is nontoxic, safe, effective and improves patient compliance by the utilization of herbal extracts would be highly acceptable.

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Acknowledged! Herbal cold creams are popular skincare products that typically contain natural ingredients like herbs, plant extracts, and essential oils known for their moisturizing and soothing properties. They're often used to relieve dryness, itchiness, and irritation, especially during colder seasons when skin tends to become dry and



sensitive. Herbal cold creams are favored by those seeking skincare products with minimal synthetic additives and potentially fewer side effects. They're often perceived as gentler alternatives to conventional cold creams, making them appealing to individuals with sensitive skin or those who prefer natural skincare solutions.

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