



FORMULATION AND EVALUATION OF HERBAL COLD CREAM

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Abstract:-

The genus Zingiberaceae has been widely used for phytotherapeutic purposes in traditional medicine throughout the world for its anti-inflammatory activity. Experimental studies have established that inflammation caused by chronic infections represents a risk factor for different forms of cancer. The objective of this study was focused on determining the anti-inflammatory capacity and cytotoxic activity of aqueous extracts of *Elettaria cardamomum* (cardamom). Herbal suppositories offer an effective alternative to conventional drug delivery, particularly for localized treatment of rectal conditions such as hemorrhoids, inflammation, and infections. Cardamom (*Elettaria cardamomum*) possesses significant anti-inflammatory, antimicrobial, and antioxidant properties, making it a promising candidate for suppository formulation. Cardamom (*Elettaria cardamomum*) exhibits significant anti-inflammatory properties through multiple mechanisms, making it a promising therapeutic agent for inflammatory conditions. Studies demonstrate that cardamom extracts reduce pro-inflammatory cytokines. *In vivo* studies show cardamom's efficacy in reducing carrageenan-induced paw edema and tamoxifen-induced liver damage by attenuating oxidative stress and pyroptosis markers. Clinical applications include its use in periodontal infections due to antibacterial and anti-inflammatory synergy. Cardamom's safety is evidenced by its non-cytotoxic profile in cell lines. These findings highlight its potential as a multifunctional anti-inflammatory agent for both preventive and therapeutic interventions. This abstract integrates key findings from the search results, emphasizing mechanisms, bioactive components, and clinical relevance. Let me know if you'd like to focus on specific aspects (e.g., molecular pathways or clinical studies) for further detail.

Keywords: anti-inflammatory, *Curcuma longa*, cytokines, cytotoxic activity, *Elettaria cardamomum*, extracts, inflammation, medicinal plants, natural products, phytochemicals

Introduction Of Cold Cream:-

The cosmetics word derived from Greek 'kosmesticos' which means to adorn. Cosmetics are products used to beautify skins to purify the skin. The cosmetics, according to the drug And cosmetics act is defined as articles intended to be rubbed, poured, sprinkled or sprayed on, introduced into or otherwise applied to the human body or part there for cleaning beautifying, promoting, attractions or altering the appearance. Cosmetics products used extensively throughout world for maintaining general appearance of face and other body parts. Eg. Skin, eyes, hair, hand etc. herbal cosmetics are preparation which represent cosmetics associated with active bio- ingredients, neutraceuticals and pharmaceutical. Cold cream is mainly used for skin treatment (such as a facial mask or lip balm), due to its moisturizing properties. It can also be used to and remove makeup as cream. When shaving the temperature drops down, cold and windy weather cream which is generally enriched with vitamin E, natural oils such as jojoba and olive oil, rose petals and various fruit extracts particularly grape seed, protect the face skin from getting dry and provide a glow, softness and fairness. It, therefore becomes necessary for the consumers to keep a face cream in winter cosmetic kitty.

What Is Cold Cream:-

Cold cream is an emulsion of water and certain fats, usually including beeswax and various scent agents, designed to smooth skin and remove makeup. Cold cream is an emulsion of water in a larger amount of oil, unlike the oil in water emulsion of vanishing cream, so-called because it seems to disappear when applied on skin. The name "cold cream" derives from the cooling feeling that the cream leaves on the skin. Variations of the product have been used for nearly 2000 years. Cold cream is an emulsion in which the proportion of fatty and oily material predominates, although when it is applied to the skin

Literature Review:-

1. **P. S. Panicker and M. MP.** Preparation and evaluation of herbal cold cream. Journal of Pharmacognosy and Phytochemistry 2021 From the Asian time aloe Vera is used for their various Medicinal properties like emollient, antimicrobial, anti-Inflammatory, antioxidant, aphrodisiac, anthelmintic, Antiseptic and cosmetic value for health care etc. Thus this Could become a media to use these medicinal properties Effectively and easily as a simple dosage form. The poly Herbal formulation and its ingredients were studied to be Consistent in quality and purity and can be easily used as face Cream. So it is concluded that formulation is safe and usable For the skin.
2. **S. V. Sirsat*, N. M. Rathi, A. S. Hiwale and P. B. Shelke.** Are view on preparation and evaluation of herbal cold cream. World Journal of Pharmaceutical Research Demand for herbal cosmetics is now A days increasing because they are harmless. Also they have less side Effects as they are prepared by taking extract of natural herbs and Shrubs. Because of its good convenience and economical with good Quality standards it is highly accepted by many people. Herbal Cosmetics are prepared in many forms like cold cream Preparations containing natural extract of crude drugs like neem, Turmeric, fruit extract like Bombax Ceiba Fruit Pulp etc., by adding Variety of ingredients in formulation.

3. **Mali, A. S., Karekar, P., & Yadav, A. V. (2015).** Formulation and evaluation of multipurpose herbal cream. International Journal of Science and Research, International Journal of Science and Research, 4(11), 1495-1498. The present work focuses on the potential of herbal extracts from cosmetic purposes. The uses of cosmetic have been increased in many folds in personal care system. The use of bioactive ingredients in cosmetic influence biological functions of skins and provide nutrients necessary for the healthy skin. The prepared formulations showed good spread ability, no evidence of phase separation and good consistency during the study period.
4. **V, S, Rabade. M, S, Pawar. G, K, Titarmare. (2020).** Formulation and Evaluation of Polyherbal Cold Cream. International Journal for Pharmaceutical Research Scholars,9(1); 25-31. Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones. Herbal formulations have growing demand in the world market. Herbal cold cream are considered as sustaining and productive way to advance the appear suggested that the prepared formulation was physico-chemically and microbiologically stable, and possessed characteristics of a standard cosmeceutical's formulation for skincare. ance of skin. Herbal cold cream are used to stimulate blood circulation, rejuvenates those muscles and help to maintain the elasticity of the skin and remove dirt from skin pores.
5. **M. Y. Sonalkar, S. A. Nitave.** Formulation and evaluation of polyherbal cosmetic cream. World J Pharm Pharm Sci 2016;5:772-9. Oil in water emulsion based cream was formulated using natural ingredients and was Evaluated. By combining all these ingredients it can be concluded that this cream can be used As a multipurpose cream and the ingredients mixed can produce synergistic effect of other. These studies suggest that base of cream of F3 and F4 are more stable and safe for use.

Aim And Objective: -

Aim :-

Formulation And Evaluation of Herbal Cold Cream By Neem Powder.

Objective: -

To prepare the cream by using the emulsification technique.

To made safety, efficacy and quality of herbal cold cream.

They are non-irritant applied on the skin.

To formulate and evaluate a herbal cold cream for shining skin by using natural herbal product.

To make a cold cream ideal for all skin types.

Plan Of Work:-

To Achieve This The Following Plan Of Work Was Made

Literature Review

Selection Of Drug And Excipients

Method Of Preparation

Evaluation Of Cream

Conclusion

Reference

Benefit Of Cold Cream:-

1. Flexibility in formulation.
2. Population proves effects from ancient time.
3. Easy availability.
4. Economical.
5. It helps to cleans and beautify the body without side effects.

Human Skin:-

Human skin is the body's largest organ, protecting against external factors like temperature, humidity, and pathogens. It's composed of three layers: epidermis (outermost), dermis (middle), and hypodermis (innermost). Skin regulates body temperature, aids in vitamin D production, and facilitates sensations like touch and feel. It's essential to maintain skin health through proper care, hydration, and protection from the sun. Skin conditions like acne, eczema, and psoriasis can affect its appearance and function. Regular skincare routines and a balanced lifestyle can help promote healthy, resilient skin. Skin health impacts overall well-being.⁽¹⁾

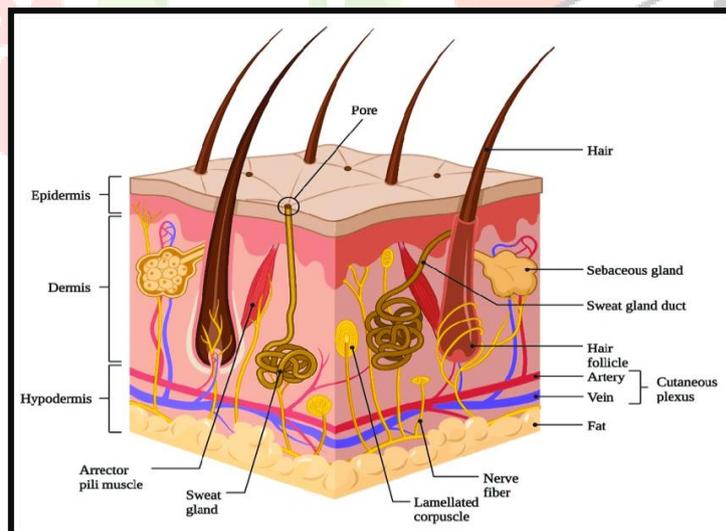


Fig 1:- Human Skin

Cold Cream:-

Cold cream is an emulsion of water and certain fats, usually including bees wax and various scent agents, designed to smooth skin and remove makeup. Cold cream is a water-in-oil emulsion (emulsion of small amount of water in a larger amount of oil), unlike the oil in water emulsion of vanishing cream, so-called because it seems to disappear when applied on skin. The name "cold cream" derives from the cooling feeling that the cream leaves on the skin. Variations of the product have been used for nearly 2000 years.

In cold cream, the major portion is the oil phase. Simply, the cold cream is an oil-based semisolid preparation. Cold cream is also known as Unguentum or Ceratum Refrigerans Generally, it contains Almond oil, bees wax, borax, and water It is a soothing and cleansing cosmetic typically of oily and heavy consistency,

Uses of cold cream are less than vanishing cream (oil in water emulsion) as topical pharmaceutical dosage Cold cream was first invented by Galen, a famous Greek physician-pharmacist in the Roman Empire (who practiced in Rome) of the 1st Century AD.⁽²⁾



Fig 2:- Herbal Cold Cream

Almond Oil:-

Almond oil is high in vitamin D, E, and minerals, which help relieve inflammation, protect against Ultraviolet rays damage and replenish the skin's hydration. It is also high in vitamins A & B, potassium, magnesium, and calcium.



Fig 3:- Almond Oil

Neem Powder:-

Neem Powder is a naturally occurring pesticide found in seeds from the neem tree. Neem Powder is a mixture of components. Azadirachtin is the most active component for repelling and killing pests and can be extracted from neem Powder. The portion left over is called clarified hydrophobic neem Powder. Prevent skin from inflammation and acne because of its anti-oxidant properties. Treat for Fungal infections. Antifungal and anti-bacterial properties .⁽³⁾



Fig 4:- Neem Powder

Borax:-

Borax's alkaline nature makes it a perfect ingredient in Cleansers and toners. In cosmetic products, borax is sometimes used as an emulsifier, buffering agent, or preservative for Moisturizing products, creams, shampoos, gels, lotions, bath bombs, scrubs, and bath salts. Borax is also an ingredient Combined with glue and water to make "slime," a gooey material that many kids enjoy playing with. Right from creams And body lotions to shampoos, bath gels and even the in-vogue bath bombs,



Fig 5:- Borax

Bees Wax:-

Beeswax is a product made from the honeycomb of the honeybee and other bees. Beeswax can create a protective layer on the skin. It's also a humectant, which means that it attracts water. Both of these qualities can help the skin stay hydrated. Beeswax is also a natural exfoliant or, ideal for sloughing away dead skin cells.⁽⁴⁾

- Moisturizes skin

Rose Water:-

Rose water is created by distilling rose petals with steam. Rose water is fragrant, and it's sometimes used as a mild Natural fragrance as an alternative to chemical-filled Perfumes. Rose water has been used for thousands of Years, including in the Middle Ages. It's thought to have Originated in what is now Iran. It's been used Traditionally in both beauty products and food and drink Products. It also comes with plenty of potential health Benefits, including the following. Rose water is especially hydrating when combined with other moisturizing ingredients, such as ceramides or glycerin. "These help to moisturize the skin, protect the skin barrier and prevent further water loss from the skin," says Allawh. However, it should n'tre place your current moisturizer.⁽⁵⁾



Fig 6:-Rose Water

Advantage Of Cold Cream:

The primary use of the cream is for skin treatment. o Mineral ingredients in the cream, work as a moisturizer.

- Generally useful for dry skin. o It can also be used as an alternative for lip balm if you have very dry, chapped lips. o It can be used as a makeup remover and cleanser.
- Sometimes it is applied to the face before putting on any makeup.
- It can be used as an alternative os having cream.
- With a hot wash cloth it can help exfoliate the skin.

Disadvantage Of Cold Cream:-

- However, as they contain petroleum, that might block the evaporation of water, they often clog pores resulting in pimples,
- They might also dark the complex over used.
- Cold cream is quite heavy inconsistency . will feel very "greasy" on the application.
- Also, peopleiving in hot, humid weather will find this too heavy

Instrument Table:-

SR.NO	INSTRUMENT
1	Measuring cylinder
2	Beaker
3	Stirrer
4	Water bath
5	porcelain dish
6	Weighing machine

*Table no 1:- Instrument Table***Ingredients Table:-**

SR. NO	INGRIDENT	QUANTITY
1	Beeswax	1.5gm
2	Almonds oils	0.15ml
3	Turmeric	0.9gm
4	Neem Powder	3.8ml
5	Vitamin E oil	0.15ml
6	Borax	0.05gm
7	Rose Water	2.6ml
8	Aloe vera Powder	1.57gm
9	Glycerin	5ml

Table no 2:- Ingredient Table(15mg)

Role Of Ingredient:-

SR.NO	INGREDIENT	ROLE
1.	Almond oil	Cures skin irritation, allergies, dry patches and make the skin soft and supple
2.	Neem Powder	To treat dry skin and wrinkles
3.	Borax	With emulsifying agent to form soap.
4.	Bees Wax	It gives thickness to the cream
5.	Rose Water	Fragrance
6.	Aloe vera Powder	Anti-ageing, Anti-inflammatory, moisturizer, reduce acne and pimples.
7.	Turmeric extract	Imparts an instant glow to the skin, reduces signs of aging, protects skin from sun damage and brightens skin tone
8.	Glycerin	By pulling water into skin glycerin helps to soften and soothe dry or irritated skin and prevent dryness and flakiness.

Table no 3:- Role Of Ingredient**Preparation of turmeric extract:-**

1. Turmeric extract was made by cold maceratin technique. Take 200 gm of turmeric in conical flask to which add 500ml of water.
2. Cover the mouth of flask by cotton plug.
3. Keep the mixture of turmeric aside for 72 hrs with occasional shaking.
4. Then filter the solution and dry the filtrate to dryness.
5. Bees wax, paraffin white petroleum and oil was melted to get her and brought to 65 C.
6. Then add turmeric extract and borax to the above ingredients with constant stirring. Add Perfume to it and allow it to stand for overnight.⁽⁶⁾



Fig 7:- Extraction Of Turmeric

Formulation can be prepared by adding two different phases which are as follows.

Phase1: Melt the solid ingredients by indirect heat the all the oils in it and stir well.

Phase2: Dissolve the borax in water with the help of heat

While still hot add the phase 1 into the phase 2 gradually with constant stirring to the wax and oil mixture. Continue this process for 5 minutes, stir all the time then remove from the heat and stir until it gets cold. As compared to other creams this cream may be made by



Fig8:-herbal cold cream

Evolution:-

Ph Meter: -

The pH of aloe cold cream was determined using pH meter. The most accurate common means of measuring pH is through a lab device called a probe and meter, or simply a pH Meter. The probe consists of a glass electrode through which a small voltage is passed. The meter is a volt meter, measures the electronic impedance in the glass electrode and displays pH units instead of volts. Measurement is made by submerging the probe in the semisolid until a reading is registered by the meter.⁽⁷⁾

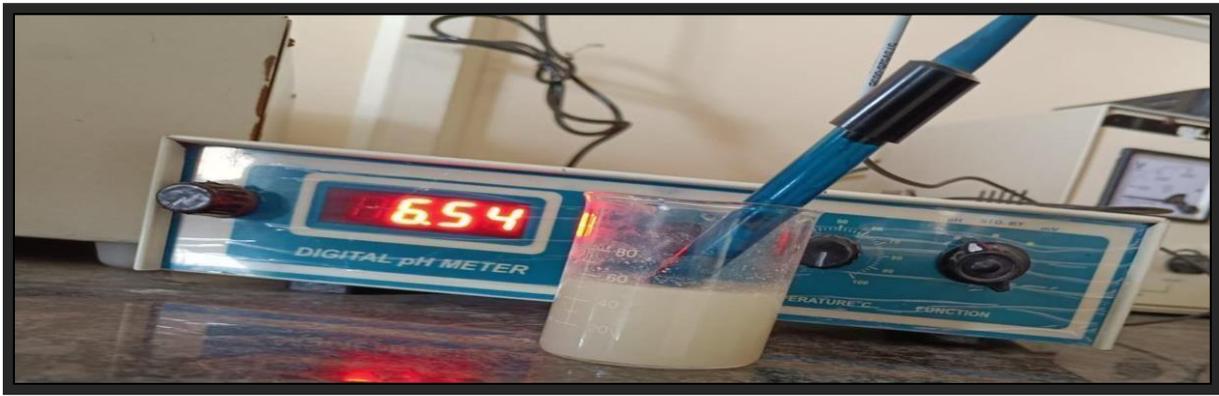


Fig 8:- Ph Meter

Ph meter:-

Herbal cold cream	F1	F2	F3
Ph	6.3	5.8	6.0

Table no 4: -Ph Meter

Irritancy Test:-

FORMULATION	IRRITANT EFFECT	ERYTHMA	EDEMA
Herbal cold cream	No	No	No

Table no 5: -Irritancy Test

Physical Evaluation:-

SR NO	PARAMETERS	OBSERVATION
1.	Colour	Brown
2.	Odour	Pleasant
3.	Texture	Smooth
4.	State	Semi solid
5.	Consistency	Smooth

Table no 6: - Physical Evaluation

Spread ability:-

6cm (Good spread ability)

Herbal cold cream	F1	F2	F3
Spread ability	5cm	7cm	6cm

Wash Ability:-

Formulation: - Herbal Cold Cream

Wash Ability: - Easy To Wash

FORMULATION	F1	F2	F3
WASH ABILITY	Easily washable	Easily washable	Easily washable

Conclusion:-

By using Turmeric, Aloe Vera, Almond oil, Neem Powder, Vitamins E Capsule cream showed a multipurpose 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, non-greasy and there is no phase separation during study period of research. From the above study it can be concluded that the herbal cold cream is safe to use as it is developed from herbal extract. Natural remedies are more acceptable in the relief that they are safer with fewer side effects than the synthetic ones be highly acceptable than synthetic ones.

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