

Formulation and Evaluation of Herbal Fairness Cream

Mr. Sanket B. Dhamane, Miss. Rachana Kamble, Mr. Shivam Golhar, Mr. Dnyaneshwar Tupe

Samarth Institute of Pharmacy, Belhe, Pune, Maharashtra, India

Abstract: *The present study was carried out to prepare and evaluate the herbal fairness cream comprising extracts of aloe vera, curcuma longa, emblica officinalis, Camellia sinensis. The various types of formulations oil in water (O/W) base were formulated by incorporating different concentrations Stearic acid and Cetyl alcohol. And different concentration of methyl paraben into the water and glycol in different amount. The pH, viscosity, spreadability, and stability of prepared base were investigated. The base was found appropriate for the preparation of cream. The extracts of varying ratio of turmeric, amla, aloe vera and Camellia sinensis were incorporated in base for the preparation of herbal fairness cream the herbal cream demonstrated good spreadability, good consistency, homogeneity, appearance, pH, ease of removal and no evidence of phase separation. All the prepared herbal cream was found to be safe for skin.*

Keywords: Formulation, Creams, Herbs, Cosmetic use. Aloe vera, curcuma longa, camellia sinensis, emblica officinalis, extraction

I. INTRODUCTION

The demand of cosmeceuticals is rapidly expanding. This expansion is due to the availability of new ingredients, the financial rewards for developing successful products, consumer formulation needs maintenance of quality standard. The quality of a formulation should satisfy the consumer's need in terms of its performance. The plant parts used in cosmetic preparation should demand, and a better understanding of skin physiology. Cosmetics are the products that are created for application on the body for the purpose of cleansing, beautifying or altering appearance and enhancing the beauty.

Cosmetics are developed to reduce wrinkles, fight acne and to control oil secretion. For various types of skin ailments formulations like skin protective, sunscreen, antiacne, antiwrinkle and antiaging are designed using varieties materials, either natural or synthetic. The development process for cosmetic have varieties of properties like antioxidant, anti-inflammatory, antiseptic, emollient, antiseborrheic, antikerolytic activity and antibacterial etc.

These herbal products claim to have less side effects, commonly seen with products containing synthetic agents. The market research shows upward trend the herbal trade with the herbal cosmetic industry playing a major role in fueling this worldwide demand for herbals

Literature survey revealed that Aloe vera is used as protective agent, soothing the skin. It also act as an anti-microbial agent Curcuma longa have anti-inflammatory activity and it is used in different types of cream and ointments. It contains curcuminoids as anti-oxidant, curcumin as bactericide, anti-fungal and anti-inflammatory agent. Hence it is beneficial to normal human keratinocytes

Emblica officinalis contains vitamin C is considered important to slow the ageing radicals. Vitamin C is a scavenger of free radicals which breaks them down Camellia sinensis is commonly known as green tea reported to have anticarcinogenic, antiviral, antioxidant property, antibacterial, antigentoxic activity etc. The properties of these plant extracts will support it as a part of ingredient in cosmetic formulation. Thus, the present study carried out to formulate and evaluate the herbal fairness cream.

1.1 Benefits of Herbal Fairness Cream

- Clear black spot
- Lighten skin
- Long lasting color
- Stronger and more fortified hairs

- Don't irritate skin

1.2 Desired Properties of Herbal Fairness Cream

- Ease of application
- Fragrance
- Low level of irritation
- Well preserved
- Good stability

II. PLANT PROFILE

2.1 Alov vera

- Family -Asphodelaceae
- Synonyms – A. barbadensis Mill
- Source – leaves and flowers
- Role – It is an antiseptic that allows protection against bacteria. Alov vera contains polysaccharides and gibberellins. These help in growth of new cells and at the re same time, reduce inflammation.



Figure 1: Alove vera powder

2.2 AMALA (Gooseberry)

- Family –Phyllanthaceae
- Synonyms - Cicca emblica, Diasperus emblica, Emblica arborea Raf.
- Source – dried fruit
- Role - High amounts of collagen contents in your skin help in skin firmness and make your skin appear soft. Regular consumption of amla juice boosts vitamin C levels and helps increase the production of collagen level in your skin.



Figure 2: Amala powder

2.3 Turmeric

- Family – zingiberaceae
- Synonyms – curcuma
- Source – leaves
- Role - to make the skin glow and keep harmful bacteria from the body . the curcumin in it reduses the excess melanin production and lightens skin tone .



Figure 3: Turmeric powder

2.4 Green Tea

- Family – theaceae
- Synonym – garucha, herbal tea
- Source – dried leaves
- Role – if you want remove dark spots and improve pigmentation issues like hyperpigmentation, then green tea is a safe and natural choice. Green tea's anti-inflammatory properties can help to reduce skin irritation, skin redness, and swelling.



Figure 4: Green tea powder

2.5 Preparation of Plant Extract

Air dried and coarsely powder of Amala, turmeric, aloe vera and Camellia sinensis were placed in round bottom flask the extract separately, with ethanol (70%). The extraction is 3 days in place then extract wetter filter and collected then The extracts were then concentrated to dryness under reduced pressure and controlled temperature, respectively and they were preserved in a refrigerator

III. PREPARATION OF CREAM BASE

Oil in water (O/W) emulsion-based cream (semisolid formulation) was formulated. The emulsifier (stearic acid) and other oil soluble components (Cetyl alcohol, almond oil) were dissolved in the oil phase (Part A) and heated to 75° C. The preservatives and other water soluble components (Methyl paraben, Propyl paraben, Triethanolamine, Propylene glycol) were dissolved in the aqueous phase (Part B) and heated to 75° C. After heating, the aqueous phase was added in portions to the oil phase with continuous stirring until cooling of emulsifier took place. The formula for the base is given.

IV. CREAM FORMULATION

The appropriate base was selected from table and creams were formulated. The emulsifier (stearic acid) and other oil soluble components (Cetyl alcohol, almond oil) were dissolved in the oil phase (Part A) and heated to 75° C. The preservatives and other water soluble components (Methyl paraben, Propyl paraben, Triethanolamine, Propylene glycol, all extracts) were dissolved in the aqueous phase (Part B) and heated to 75° C. After heating, the aqueous phase was added in portions to the oil phase with continuous stirring until cooling of emulsifier took place

Table 1: Composition of fairness cream

Sr. No.	Ingredients	Quantity gm
1	Amala Extract	5
2	Aloe vera extract	5
3	Green tea extract	5
4	Termuric extract	5
5	Steric acid	13
6	Cetyl alcohol	2
7	Almond oil	4
8	Glycerol	3
9	Methyl parabean	0.02
10	Triethynolamine	qs
11	Water	qs

V. EVALUATION OF HEARBAL FAIRNESS CREAM

- **pH of the Cream:** The pH meter was calibrated using standard. buffer solution. About 0.5g of the cream was weighed and dissolved in 50.0 ml of distilled water and its pH was measured.
- **Viscosity:** Viscosity of the formulation was determine by Brookfield Viscometer.
- **Homogeneity:** The formulation were tested for the homogeneity by visual appearance.
- **Appearance:** The appearance of the cream was judged by its colour, pearlscence and roughness and graded.
- **Type of Smear:** After application of cream, the type of film or smear formed on the skin were checked.
- **Irritancy Test:** Mark an area (1sq.cm) on the left hand dorsal surface. The cream was applied to the specified area and time was noted. Irritancy, erythema, oedema was checked if any for regular intervals up to 24 hrs and reported.

VI. CONCLUSION

From the above discussion of it is concluded that on combining the extracts of aloevera, turmeric , green tea and amala in different ratio to get multipurpose effect such as whitening, antiwrinkle, antiaging and sunscreren effect of skin. as we known that it not possible to increases the extend of efficiency of medical and cosmetics properties of single plant extract but by combining the plant extract it can be possible to increases the efficacy of extract in this regard .we mix the extract of alo vera turmeric amala green tea to improve as well as synerizes the cosmetic properties of prepared product compare to individual extract further research will carry out to cheak scientific action of selected formulation . the studies suggest that composition of extract of base cream are more stable and safeit may produced synergistic action

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