

Formulation and Evaluation of Herbal Cream Using Natural Ingredients

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ABSTRACT

Creams are the topical preparations which can be applied on the skin. These are the viscous semi-solid emulsions of either the oil-in-water or water-in-oil type dosage forms whose consistency varies by oil and water. Creams can be ayurvedic, herbal or allopathic which are used by people according to their needs for their skin conditions. They contain one or more drugs substances dissolved or dispersed in a suitable base. Creams may be classified as o/w or w/o type of emulsion on the basis of phases. The objective of this study is to create and assess an herbal face cream that contains Aloe vera gel, Tulsi leaves extraction Carrot oil infusion & sandalwood powder. Herbal cream was made using slab formulation technique and was evaluated for organoleptic studies, skin irritation, washability, spreadability and pH studies.

Key Words: Aloe vera gel, Tulsi leaves extract, Carrot oil infusion, sandalwood powder

I. INTRODUCTION

Creams are the topical preparations which can be applied on the skin. They are used for cosmetic purposes such as cleansing, beautifying, improving appearances, protective or for therapeutic function. These topical formulations are used for the localized effect for the delivery of the drug into the underlying layer of the skin or the mucous membrane. These products are designed to be used topically for the better site specific delivery of the drug into the skin for skin disorders. Creams are considered as a pharmaceutical product as they are prepared based on techniques developed in the pharmaceutical industry; unmedicated and medicated creams are highly used for the treatment of various skin conditions or dermatoses. Creams can be ayurvedic, herbal or allopathic which are used by people according to their needs for their skin conditions. They contain one or more drugs substances dissolved or dispersed in a suitable

base. Creams may be classified as o/w or w/o type of emulsion on the basis of phases.^{1,2,3}

ADVANTAGES OF CREAMS:

- Creams are more acceptable to the patient because they are less greasy and easier to apply.
- This oil in water type creams can be rubbed onto the skin.
- These are more readily and easily removed by washing with water itself.
- These oils in water types of creams are less likely to soil clothes.
- These oils in water type creams cause a cooling sensation due to evaporation of water from skin.
- Oil in water type creams absorbs the discharge from the wound very quickly.
- Then it can be used on a non-weeping surface to prevent dehydration.

DISADVANTAGES OF CREAMS:

- These creams are not intended for internal use.
- These creams are basically meant for external application to the skin.
- In these creams the aqueous phase is prone to the growth of molds and bacteria so preservatives should be used.
- In these creams sometimes rancidification of oils takes place.
- These creams stability is not good as an ointment.
- These creams are less hydrophobic than other semisolid preparations.

The objective of our work is to develop an herbal cream which can serve multipurpose effect like moisturizer and skin irritant.

II. MATERIALS AND METHODS

The materials include Aloe vera gel, Tulsi leaves extraction Carrot oil infusion & sandalwood

powder. Take required amount of beeswax, olive oil and liquid paraffin in a petridish and heat it to a temperature of 75°C in water bath. In another beaker, dissolve borax, methylparaben in distilled water and heat this beaker to 75 °C to dissolve borax and methylparaben and to get a clear solution. Then slowly add this aqueous phase to heated oily phase⁴ Add a measured amount of aloe vera gel, Carrot infusion, Tulsi extract, and

sandalwood powder and stir vigorously until it forms a smooth cream. Then add few drops of rose oil as a fragrance. Put this cream on the slab and add few drops of distilled water if necessary and mix the cream in a geometric manner on the slab to give a smooth texture to the cream and to mix all the ingredients properly. This method is called as slab technique.

III. RESULTS

Table 1 Formulation of Multipurpose Herbal Cream

S. No	Ingredients	Formulation (for 100g)			
		F1	F2	F3	F4
1	Beeswax	10gm	15gm	20gm	25gm
2	Liquid Paraffin	18ml	20ml	22ml	24ml
3	Borax	1.5gm	1.5gm	1.5gm	1.5gm
4	Aloevera gel	1gm	1gm	1gm	1gm
5	Carrot oil	6ml	8ml	10ml	12ml
6	Tulsi extract	2ml	4ml	6ml	8ml
7	Dimethyl sulphoxide	20ml	20ml	20ml	20ml
8	Sandalwood powder	1gm	0.5gm	0.5gm	0.5gm
9	Olive oil	10ml	10ml	10ml	10ml
10	Rose oil	2 drops	2 drops	2 drops	2 drops
11	Methyl Paraben	1g	1g	1g	1g
12	Distilled water	Q.S	Q,S	Q.S	Q.S

Fig. 1 prepared multipurpose cream formulation





F3



F4

Table 2 Organoleptic studies

S. No	Parameter	F1	F2	F3	F4
1	Colour	Dark brown	Light brown	Light brown	Light brown
2	Odour	Pleasant	Pleasant	Pleasant	Pleasant
3	Consistency	Semisolid	Semisolid	Semisolid	Semisolid
4	Texture	Gritty	Smooth	Smooth	Smooth
5	Greasiness	Non-greasy	Non-greasy	Non-greasy	Non-greasy

Table 3 pH studies

S. No	Parameter	F1	F2	F3	F4
1	pH	6.5	6.5	6.2	6.3

Table 4 Spreadability Test

S. No	Formulation	Time (Sec)	Spreadability (g×cm/sec)
1	F1	15	10
2	F2	12	12.5
3	F3	8	18.75
4	F4	10	15

Table 5 Washability and Phase separation Test

S. No	Formulation	Washability	Viscosity (centipoise)	Phase Separation
1	F1	Easily washable	21021	No
2	F2	Easily washable	19548	No
3	F3	Easily washable	12646	No
4	F4	Easily washable	18825	No

Table 6 Irritancy Test

S. No	Formulation	Irritancy
1	F1	Nil
2	F2	Nil
3	F3	Nil
4	F4	Nil

IV. DISCUSSION

A simple slab technique is performed and four formulations of Herbal cream were prepared in present study. Herbal cream was formulated,

evaluated and studied. It was prepared by using different quantities of Aloe vera gel, Tulsi leaves extraction Carrot oil infusion & sandalwood powder. Four different formulations F1, F2, F3&

F4 of Herbal cream were prepared and subjected to evaluation studies. It was formulated and evaluated for parameters such as Color, Odor, Consistency, Texture, Greasiness, pH, spreadability, washability, Phase separation and irritancy tests. It was found to be satisfied with all the required characterization. The F3 formulation have more satisfactory properties compared to other formulations.

V. CONCLUSION

A systematic approach involving preparation and evaluation of Herbal Cream using different formulation was attempted. The evaluation studies such as Color, Odor, pH, Taste, spreadability were conducted which projected the satisfactory results. The developed formulations can be used as an effective preparation for moisturizing skin.

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