



CODEN [USA]: IAJ PBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.1253707>Available online at: <http://www.iajps.com>

Research Article

**FORMULATION AND EVALUATION OF VANISHING
HERBAL CREAM OF CRUDE DRUGS****Vishal Lad***, Chandrakant Suryawanshi, Namita Jadhav, Vinod Wagh, Amit Sinhal,
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Abstract:

The purpose of present study was to formulate & evaluate vanishing herbal cream. Herbal cream offer several advantages over other creams. Method carried out to prepare herbal cream was very simple. Firstly oil phase was prepared, the mixture of stearic acid, potassium hydroxide & sodium carbonate were melted separately at 70°C. Secondly aqueous phase was prepared, mixture of alcoholic extract of crude drugs, & glycerin, perfume & water heated at 70°C. Then aqueous phase was added into oil phase at 70°C with continuous stirring.

The above prepared herbal cream was evaluated. The physical parameters such as pH, homogeneity, appearance (colour), rubout (spreadability, wetness), type of smear, emolieny were determined. The herbal formulation showed good consistency, good spreadibility, homogeneity, pH, non greasy and no evidence of phase separation. The herbal extract containing cream substantially increased skin elasticity, hydration and decreased the skin melanin. to form

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Please cite this article in press Vishal Lad et al., *Formulation and Evaluation of Vanishing Herbal Cream of Crude Drugs*, Indo Am. J. P. Sci, 2018; 05(05).

INTRODUCTION:

Now-a-days herbal extracts are used in the cosmetic preparations for augmenting beauty and attractiveness. Herbal cosmetics are classified on the basis of dosage form like- cream, powder, soaps, solutions, etc. and according to part or organ of the body to be applied for like; cosmetics for skin, hair, nail, teeth and mouth etc. Creams are semisolid emulsions intended for application to the skin or mucous membrane. A low fat moisturizer that disappears into the skin is called as a vanishing cream. It softens skin, leaving nothing behind [12]. Vanishing cream are o/w emulsion based preparations containing aqueous phase and oil phase [4].

The cosmetic products are the best choice to reduce skin disorders such as skin aging, skin wrinkling, hyper pigmentation and rough skin texture etc. The usage of synthetic products becomes very harmful from long time for the youth as well as our environment. Various synthetic compounds, chemicals, dye and their derivative proved to cause various skin diseases having numerous side effects. The value of herbs in the cosmeceutical making has been extensively improved in personal care system and there is a great demand for the herbal cosmetics. Thus we are using herbal cosmetics as much as possible. The basic idea of skin care cosmetic lies deep in the Rigveda, Yajurveda, Ayurveda, Unani

and Homeopathic system of medicine. These are the products in which herbs are used in crude or extract form. These herbs should have varieties of properties like antioxidant, anti-inflammatory, antiseptic, emollient, antiseborrhetic, antikerolytic activity and antibacterial etc. The word herbal is a symbol of safety in contrast to the synthetic one which has adverse effects on human health[10].

This herbal vanishing cream consists of various crude drugs such as bud of clove (*eugenia caryophyllus*, myrtaceae), leaves of tulsi (*ocimum santum*, lamiaceae) fruits of nagarmotha (*cyperus scariosus*, cyperaceae), fruits of nutmeg (*myristica fragrans*, myristicaceae), jawas or linseed (*linum usitatissimum*, linaceae), wheat grains (*triticum aestivum*, gramineae), cereals of urid and harbhara, leaves of neem (*azadirachta indica*, meliaceae) [4].

OBJECTIVE

The objective of this research work was to formulate the cream which does not cause any side effects or adverse reactions. The cream also acts as a fairness expert in day to day life by removing aging signs. It also possesses nutritional value which provided required nutrients to the skin. A herbal cream that can give effective protection to skin and free from any toxicity or toxic residue or any irritation when regularly used and should also be cosmetically acceptable.

MATERIAL**Raw herbs collection**

All crude drugs were collected from Gulabchand Gangaram Ayurvedic medicine shop, Dhule.

Crude Drug Extract	Uses
Clove (<i>Eugenia caryophyllus</i> , Myrtaceae)	Rubifacient
Nagarmotha (<i>Cyperus scariosus</i> , cyperaceae)	Antioxidant
Tulsi (<i>Ocimum santum</i> , Lamiaceae)	
Nutmeg (<i>Myristica fragrans</i> , myristicaceae)	
Linseed (<i>Linum usitatissimum</i> , Linaceae)	Fatty material
Wheat grains, Cereals (<i>Triticum aestivum</i> , gramineae)	Nutrients
Neem (<i>Azadirachta indica</i> , Meliaceae)	Antibacterial

AUTHENTICATION

The plant material collected was identified and authenticated by Namitata R. Jadhav, Assistant professor, Pharmacognosy department, Gangamai College of pharmacy, Nagaon .

METHOD OF PREPARATION

Steps carried out in the preparation of vanishing herbal cream were as follows [2].

Preparation of alcoholic extract of crude drugs

All above mentioned powdered crude drugs of 5gms were taken into the conical flask and then 100ml. of ethanol was added to it, then the conical flask was capped with aluminium foil. Then this mixture was placed for maceration for 5 days.



**Filtration of Extract****Preparation of oil phase**

The oil soluble ingredient such as Stearic acid (3gm), potassium hydroxide, and sodium carbonate was taken into one porcelain dish and this mixture was melted at 70°C.

Preparation of aqueous phase

Alcoholic extract of crude drugs mentioned in step-1 (2.25gm), Glycerin (3gm), Water (35.5gm) were taken into another porcelain dish and heated this mixture at 70°C.

**Exrtact****Addition of aqueous phase to oil phase**

The aqueous phase was added to the oil phase with continuous stirring at 70°C. Now, once the transfer was completed it was allowed to come at room temperature, all the while being stirred. Perfume (0.5%) was added at last just before the finished product was transferred to suitable container. Then cream was evaluated for various physical parameters.



Herbal Cream

Analysis of physical parameters**Determination of organoleptic properties**

The appearance of the cream was judged by its color, pearlscence and roughness and graded [12].

Determination of pH

Accurately weighed 5 g of the sample was dispersed in 45 ml. of water. The pH of the suspension was determined at 27°C using digital pH meter[8].

Determination of homogeneity

The formulations were tested for the homogeneity by visual appearance and by touch [12].

Determination of roboutness

It includes following,

Determination of spread ability

Spread ability may be expressed by the extent of the area to which the topical application spreads when applied to the affected parts on the skin. The therapeutic efficiency of the formulation also depends upon its spreading value. Hence, it was found necessary to determine the spread ability of the formulation. For this purpose, sample (about 3gm) was applied in between two glass slides and they were pressed together to obtain a film of uniform thickness by placing 1000 gm weight for 5 minutes. Thereafter a weight (10gm) was added to the pan and the top plate was subjected to pull with the help of string attached to the hook. The time in which the upper glass slide moves over the lower plate to cover a distance of 10 cm is noted.

The spread ability (S) can be calculated using the formula [14].

$$S = m \times L / T$$

Where,

S – Spread ability

m- Weight tied to upper glass slide.

l- Length moved on a glass slide

t- Time taken.

The determinations were carried out in triplicate and the average of three readings was recorded.

Determination of wetness

It was determined by applying cream on skin surface of human volunteer.

Determination of type of smear

It was determined by applying the cream on the skin surface of human volunteer. After application of cream, the type of film or smear formed on the skin were checked [1].

Determination of emolliency

Emolliency, slipperiness and amount of residue left after the application of fixed amounts of cream was checked.

Determination of viscosity

The viscosity determinations were carried out using a Brookfield Viscometer (DV II+ Pro model) using spindle number S- 64 at a 20 rpm at a temperature of 1000°C. The determinations were carried out in triplicate and the average of three readings was recorded [12].



Brookfield Viscometer

Determination of type of emulsion

Dilution test

In this test the emulsion is diluted either with oil or water. If the emulsion is o/w type and it is diluted with water, it will remain stable as water is the dispersion medium" but if it is diluted with oil, the emulsion will break as oil and water are not miscible with each other. Oil in water emulsion can easily be diluted with an aqueous solvent, whereas water in oil emulsion can be diluted with an oily liquid [12].

Dye solubility test

In this test an emulsion is mixed with a water soluble dye (amaranth) and observed under the microscope. If the continuous phase appears red, it means that the emulsion is o/w type as the water is in the external phase and the dye will dissolve in it to give color. If the scattered globules appear red and continuous phase colorless, then it is w/o type. Similarly, if an oil soluble dye (Scarlet red C or Sudan III) is added to an emulsion and the continuous phase appears red, then it is w/o emulsion [12].

RESULT

Appearance

The cream prepared was found to be of a yellowish green color and had pleasant odor.

pH

The pH of cream was found to be 6, which is acidic value.

Homogeneity

It was found that the cream was homogeneous and smooth and consistent in nature.

Ruboutness

It was found that the cream was easily spreadable and moisturizes the skin surface of human volunteer.

Type of smear

It was found that the cream produced non-greasy film on the skin surface.

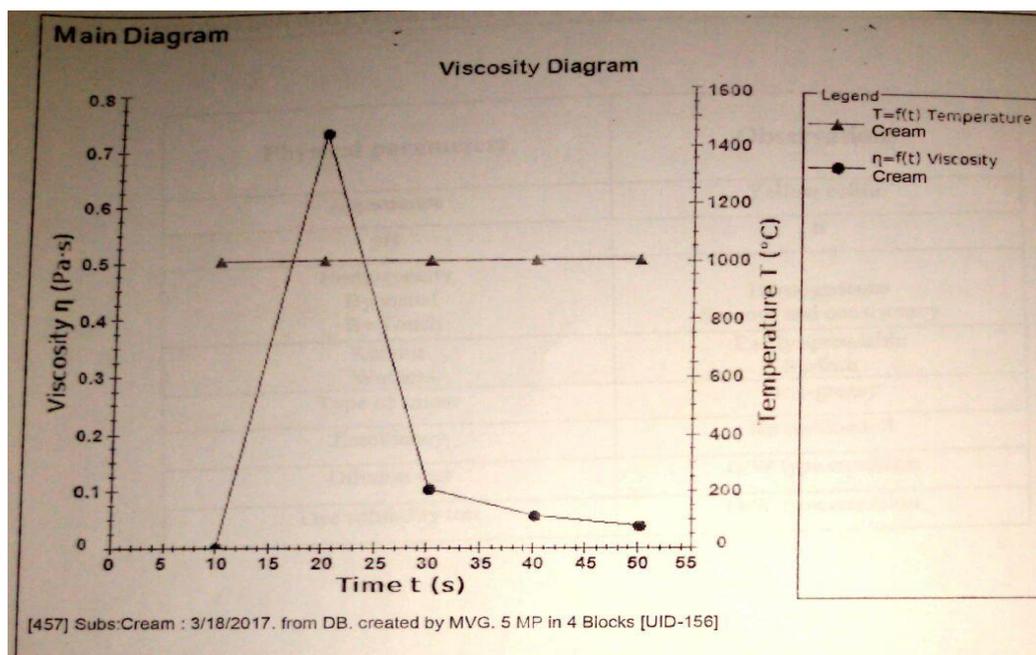
Emolliency

After observation, it was found that cream not left residue on skin surface after application.

Viscosity

The viscosity of cream was found to be 0.7259 Pa.s.

Sr. Number	Time(s) t	Shear Stress (Pa)	Shear Rate (1/s) Y	Viscosity (Pa.s) η	Temperature (°C) T
1	10	0.000	0.000	0.000	1000.0
2	20	9.984	13.754	0.7259	1000.0
3	30	19.989	193.749	0.1032	1000.0
4	40	29.993	542.827	0.0553	1000.0
5	50	39.998	1046.808	0.0382	1000.0



Type of emulsion

The cream was found to be of the O/W type emulsion by dilution and dye solubility test

Physical parameters	Observations
Appearance	Yellow colour
pH	6
Homogeneity By Visual By Touch	Homogenous Smooth & Consistency
Rubot Wetness	Easily spreadable surface
Viscosity	0.7259
Type of Smear	Non- greasy
Emolency	No residue left
Dilution test	O/W type emulsion
Dye solubility test	O/W type emulsion

CONCLUSION:

The vanishing cream of crude drugs with the best properties and having nutritional value was to be prepared by simple methods and less equipments are required. The prepared herbal cream also has antioxidant and antibacterial activity due to this it retards aging signs and pimple formation on the face. Further studies are required for this vanishing herbal

cream. It was found that this type of formulation of the vanishing herbal cream was not prepared earlier. The present work focuses on the potential of herbal extracts for cosmetic purposes & the use of bio active ingredients in cosmetic potentiate biological functions of skin & provide nutrients essential for healthy skin or hair.

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