GUJARAT TECHNOLOGICAL UNIVERSITY

Shree H.N SHUKLA

pharmaceutical institute of education & research Rajkot

Project Report

"preparation of vanishing cream by using ginseng and vitamin C."

B. Pharma Sem- VIII

Submitting by

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Academic Year (2020-2021)

Declaration

I hereby declare that the work embodied in this thesis is entitled "preparation of vanishing cream by using ginseng and vitamin C "has been carried out by me in the department of **shree H.N Shukla** Pharmaceutical institute of education and research, Rajkot, Gujarat during the period **2020-2021** and has been not submitted earlier for the award of any degree or diploma to this or any university

Place: – Rajkot

Gujarat

Makwana Neha

BPH/0023/2021

Date:

Certificate

This is certifying that miss **Makwana Neha.**

(B Pharma/0023/2021) has worked under by guidance and super vision.

For the project entitled “preparation of vanishing cream by using ginseng and vitamin C” The detail of work carried out by her have been incorporated in this project report and is being submitted by her in partial fulfillment for the award of degree of Bachelor of Pharmacy

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Neha Makwana

(B Pharma/0023/2021)

CONTENTS

ABSTRACT

The purpose of the present research work was to formulate and evaluate ginseng and vitamin c vanishing cream, the majority of existing creams which has prepared form drugs of synthetic origin, such as acyclovir, triamcinolone, calcipotriene, extras give fairness to face, but it has several side effects such as itching or several allergic reactions this vanishing cream do not have any of these side effects, without side effects it gives clear, smooth, anti-aging skin. Method carried out to prepare ginseng and vitamin c vanishing cream was very simple. Firstly, oil phase was prepared the mixture of stearic acid (17%), potassium hydroxide (0.5%), sodium carbonate (0.5%) were melted at 70˚c. Second aqueous phase was prepared, mixture of alcoholic extract of crude drug (ginseng) (4.5%), glycerin (6 %) perfume (0.5%), water (71%) heated at 70˚c with continuous stirring. Now, once the transfer was completed it was allowed to come at room temperature all the while being stirred perfume was added at last just before the finished product was transferred to suitable container. The above prepared cream was evaluated the physical parameters such as ph, homogeneity by visual and by touch, appearance (color) rubout (spread ability, wetness), type of smear, emollience were determined.

INTRODUCTION

Nowadays various creams are used in the cosmetic preparation for augmenting beauty and attractiveness cosmetics are classified on the basis of dosage form like cream, powder, soap, solutions, etc. and according to part or organ of the body to be applied for like ; cosmetic 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 vanishing cream it softens skin, leaving nothing behind. Vanishing cream are o/w emulsion-based preparations containing aqueous phase and oil phase.

Depending on the proportion of water to grease, cream can be water miscible and washed away easily or be thick and sticky it is perhaps the commonest prescribed topical medicament as it is less oily, messy and more user – friendly.

The skin is the body's first line of defense for external exposure the signs of ageing are most visible in the skin although, ageing skin is not a threat to a person, it can have a detrimental effect on the psychology of a person. Much of the pre nature ageing occurs as a direct or indirect result of skin's interaction with the environment. Exposure to sunlight is a recognized as a major factor in the etiology of progressive unwanted mages in the skin appearance photo memo protective agents are capable of preventing the adverse effects of oil reactive on the skin, which are caused by excessive generation of reactive oxygen species.

This vanishing consists of light colored forked – shaped root (ginseng), a relatively long stalk and green leaves with an oval shape. Panax quinquefolius and Asian ginseng and vitamin c as antioxidant.

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.

MATERIAL

- RAW COLLETION

All crude drugs and material were collected form shree H.N Shukla pharmaceutical laboratory, Rajkot.

CRUDE DRUG	USES
1. Ginseng (panax quinquefolius, araliaceae)	Antiaging
2. Vitamin c (ascorbic acid)	Antioxidant
3. Steric acid (from coconut or palm)	Fatty material
4. Potassium Hydroxide	For fine texture without excessive harshness
5. Glycerin	As humectant, for soften and protect skin.
6. Perfume	For fragrance

1. Ginseng

Panax ginseng also known as Asian ginseng is a species of plant whose root is the original source of ginseng.

Biology source – root of plants in genus panax
Family - araliaceae
Genus - panax
Species - panax + ginseng
Chemical constituents: ginseng content saponins, ginseng oils and phytosterol, carbohydrates and sugars, organic acids, nitrogenous substances, amino acids and peptides, vitamins and minerals, and certain enzymes.

Uses

Ginseng's anti-inflammatory properties and ability to naturally balance oil production within the skin.

- It is also effective in reducing acne, out breaks as well as assisting in conditions such as rosacea and psoriasis.
- Allowing to metabolize skin cells and help get rid of dead skin cells to produce healthy new skin.
- Anti – aging.

2. Vitamin C

- Ascorbic acid
- Mono saccharide

Formula – C6H8O6

Molar mass	–	176.124 9/mol
Appearance	-	white or light yellow solid
Density	–	1.65 g/cm3
Melting point	–	190 to 192˚C
Bio availability	–	rapid & complete
Protein binding	–	negligible
Elimination Half – life	-	varies according to plasma concentration
Excretion	-	kidney
Boiling point	-	552.7˚C

USES

- Vitamin C promotes collagen production, boosts collagen
- Anti oxidant
- Protects skin cells from damaging free radicals caused by uv exposure.
- Promote healing, reduce hyper pigmentation.

3. Stearic acid

- Octadecanoic acid
- It is usually found in various plants and animals fats.
- Its major components of cocoa and shea butter.

Formula	–	$C_{18}H_{36}O_2$
Melting point	-	69.3˚C
Molar mass	-	284.48 g/mol
Boiling point	-	36˚C
Density	-	941 kg/m3

Uses

- Used as emollient and emulsifier
- To protect skin's surface against water loss and help shore up skin's protective barrier.

4. Potassium hydroxide

- Formula – KOH
- Molar mass – 56.1056 g/mol
- Density - 2.12 g/cm3
- Melting point - 360˚C
- Soluble in - water alcohol glycerol

It is stabilize the PH of any cosmetic product.

If the PH of a product is too acidic or too basic the product can disrupt the delicate skin mantle barrier.

Uses

For fine texture without excessive harshness.

4. Glycerin

- Glycerin easily attracts absorbs. Moisture, also attract dust and pollution which can cause irritation to some people.
- Humectant & emollient
- Allows the skin to retain moisture.
- Increase skin hydration, relieve dryness and refresh the skin's surface.

5. Perfume

- For fragrance
- For sweet smell

➢ Authentication

The plant material collected was identified and authenticated by reena korat, assistant professor, pharmacognosy department of shree H.N Shukla institute of pharmaceutical education and research.

Method of preparation

- Steps carried out in the preparation of vanishing cream were as follows.

Preparation of alcoholic extract of crude drug.

All above mentioned powdered crude drug (ginseng) of 5 grams were taken into the comical flask and then 100 ml of ethanol was added to it, then the conical flask was capped with aluminum foil.

Then this mixture was placed for maceration for 5 days.

Preparation of oil phase.

Stearic acid (17%), potassium hydroxide (0.5%) , sodium carbonate (0.5%), was taken into porcelain dish and this mixture was melted at 70˚C.

- **Preparation of aqueous phase.**

Alcoholic extract of crude drug (ginseng) mentioned in step-1 (4.5%) , glycerin (6%), water (71%) were taken into another porcelain dish and heated this mixture at 70˚C.

Addition of aqueous phase t 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.
- For preparing 20 gm vanishing cream.

Crude drug	gm
Steric acid	4 gm
Water	14.90 gm
12OH	0.2 gm
Glycerin	0.8 gm
Ginseng	0.2 gm
Vitamin C	0.5 gm
Perfume	0.5 %/ml

➢ Analysis of physical parameters.

- **Determination of organoleptic properties.**

  The appearance of the cream was judged by its color, pear, scence and roughness and graded13.

- **Determination of PH**

  Accurately weighed 5 gm of sample was dispersed in 45 ml of water.

  The PH of the suspension was determined at 27˚C using digital PH meter.

- **Determination of homogeneity**

  the formulations were tested for homogeneity by visual appearance and by touch.

- **Determination of robustness**

  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 formulation also depends upon its spreading value for this purpose, sample (about 3 gm) was applied in between two glass slides and then were pressed together to obtain a film of uniform thickness by placing 1000gms weight for 5 minutes. There after 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 10cm is noted.

The spread ability (S) can be calculated using the formula:

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

Where,

S = spread ability

M= wight tied to upper glass slide

L = length moved one glass slide

+ = tire taken

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

➢ Determination of wetness.

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

➢ Determination of type of swear.

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.

➢ Determination of emolliency.

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

➢ Determination of viscosity.

The viscosity determinations were carried out using a brook field viscometer (DV II + pro model) using spindle number s-64 at a 20 rpm at a temperature of 25˚C the determinations were carried out in triplicate and the average of three reading was recorded.

➢ Determination of type of emulsion.

▪ Dilution test

In this test the emulsion is diluted either oil or water. If the emulsion is o/w type and it is diluted with water, it will remain stable as water is " dispersion medium " but if it 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 oily liquid.

➢ 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 dye will dissolve in it is 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.

➢ Result

- **Appearance**

  The cream prepared was found to be yellowish brown color and had pleasant odor.

- **PH**

  The PH of cream was found to be G.I which is acidic value.

- **Homogeneity**

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

- **Rub outness**

  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 27025 CPS.

- **Type of emulsion**

  The cream was found be of the o/w type emulsion by dilution and bye solubility test.

Physical parameters	observation
• Appearance • PH • Homogeneity A) By visual B)By touch • Rubout A)Spread ability B)Wetness • Type of smear • Emollience • Viscosity • Dilution test • Dye solubility test	Yellowish brown color 6.1 Homogeneous smooth and consistent easily spreadable moisturizes skin surface. Non-greasy No residue left 27025 CPS o/w type emulsion 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 equipment's are required the prepared ginseng and vitamin C vanishing cream also has anti oxidant and anti bacterial activity due to this it retards aging signs and pimple formation on the face. Further studies are required for this ginseng vitamin C vanishing cram, it was found that this type of formulation of the ginseng vitamin C vanishing cream was not prepared earlier.

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