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FORMULATION AND EVALUTION OF HERBAL VANISHING CREAM FOR ANTI-MELANIN EFFECT

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Abstract : The skin is the largest organ of the body. There are three structural layers for skin- epidermis, dermis, and subcutis. Hair, nails, sebaceous gland, sweat gland and apocrine glands are regarded as derivations of skin. The purpose of present study was to formulate and estimate the herbal vanishing cream.Vanishing cream offers several advantages over other creams. Herbal vanishing creams have smaller side effect and they give a fairness look to the skin. Method carried out to prepare the herbal evaporating cream was veritably simple. originally, oily phase was prepared by mixing of stearic acid, potassium hydroxide, methyl paraben and propyl paraben after melting at 70 °C. Secondly water phase was prepared by mixing of alcoholic excerpts of Turmeric greasepaint, waterless excerpts of Liquorice powder ,Tulsi powder , Pomegranate juice, glycerin and water which were also hotted at 70 ° C. Also water phase was added into the oily phase at 70 ° C with nonstop shifting. Now, once the mixing 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 the suitable vessel. The formulation was estimated by using different parameters like appearance, pH, irritancy, smear test, spreadability etc.

***IndexTerms - Lavandula angustifolia, Coffea arabica*, polyherbal, crude drugs, ethanolic extract, emulsion, microbial assay, pH, vanishing cream.**

INTRODUCTION

The term “ medicinal plants ” includes different types of plants used in herbalism(" herbology" or" herbal drug"). It's the use of plants for medicinal purposes, and the study of similar uses. The word “ herb ” has been deduced from the Latin word, “ herbal ” and an old French word “ here ”. Now a days, herbs refers to any part of the plant like fruit, seed, stem, dinghy, flower, splint, smirch or a root, as well as anon-woody plant before, the term “ herb ” was only applied to non-woody plant, including those that come from trees and shrubs. These medicinal plants are also used as food, flavonoid, drug or incense and also in certain spiritual conditioning.. About 8,000 herbal remedies have been codified in AYUSH systems in INDIA. Ayurveda, Unani, Siddha and Folk(ethnical) drugs are the major systems of indigenous drugs. Among these systems, Ayurveda and Unani Medicine are most advanced and extensively rehearsed in India. Lately, WHO(World Health Organization) estimated that 80 percent of people worldwide calculate on herbal drugs for some aspect of their primary health care requirements. These countries give two third of

the plants used in ultramodern system of drug and the health care system of pastoral population depend on indigenous systems of drug. Treatment with medicinal plants is considered veritably safe as there's no or minimum side effects. These remedies are in sync with nature, which is the biggest advantage. The golden fact is that, use of herbal treatments is independent of any age groups and the relations. The ancient scholars only believed that sauces are only results to cure a number of health- related problems and conditions. These sauces that have medicinal quality give rational means for the treatment of numerous internal conditions, which are else considered delicate to cure.[1]

SKIN

The skin is appertained to as the largest part of the body organs and it contains 15 of the total adult weights. Skin has a face area of about 2m2. Typically the skin is veritably smooth. still, due to aging and exposure to heat and cold wave, sunrays, pressure, and bruise, dust and microbial infection, etc. the smoothness may be lost and skin becomes rougher and thicker. Skin is one of the most readily accessible organs of the mortal body. There are two kinds of mortal skin; one that 'shair-less similar as soles of bottom and triumphs of hand, and the other kind which bears hair and sebaceous glands similar as arms and face. It includes gland, hair, nails and they perform numerous vital functions, protection against physical, chemical,natural assaulters, forestallment of redundant loss of water and thermoregulation. The skin is conforming of three layers that are epidermis, dermis and subcutaneous towel. The epidermis conforming of constellation of cells known as keratinocytes. Its function is to synthesize keratin which have defensive part.[2]

STRUCTURE OF SKIN[2]

The skin conforming of following layers

a) Epidermis

b) Dermal epidermal junction

c) Epidermal accessories

d) Dermis

e) Subcutaneous fat

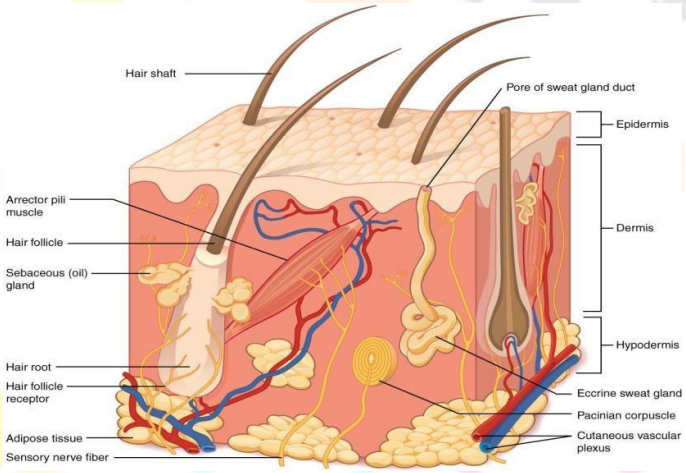

Figure No1 Structure of skin

FUNCTIONS OF SKIN[7]

- protection
- thermoregulation
- heat product
- heat loss
- control of body temperature
- exertion of sweat glands
- regulation of blood inflow through the skin

DISEASE OF SKIN[6]

1.Freckles: Freckels are small spots on your skin that range in colour from red to brown. They are generally seen on sun- exposed areas, including your face, neck, back, upper casket, hands and arms. Freckles are generally inoffensive, but like any lesion, should be watched for any changes.

2. Melasma: Melasma is a common skin problem caused by brown to argentine- brown patches on the face utmost people get it on their cheeks, chin, nose ground, forepart, and above the upper lip. It's more common in women than men.

3. Solar Lentigo: A solar lentigo(plural, solar lentigines), occasionally called an age spot or liver spot, is a brown macule(small, flat, smooth area of skin) caused by habitual sun or artificial ultraviolet(UV) light exposure. There may be just one lentigo or there may be multiple.

MELANOGENESIS[3]

Melanogenesis is the complex process by which the pigment melanin is produced in melanosomes by melanocytes. In this process melanin are produced by following mechanism:

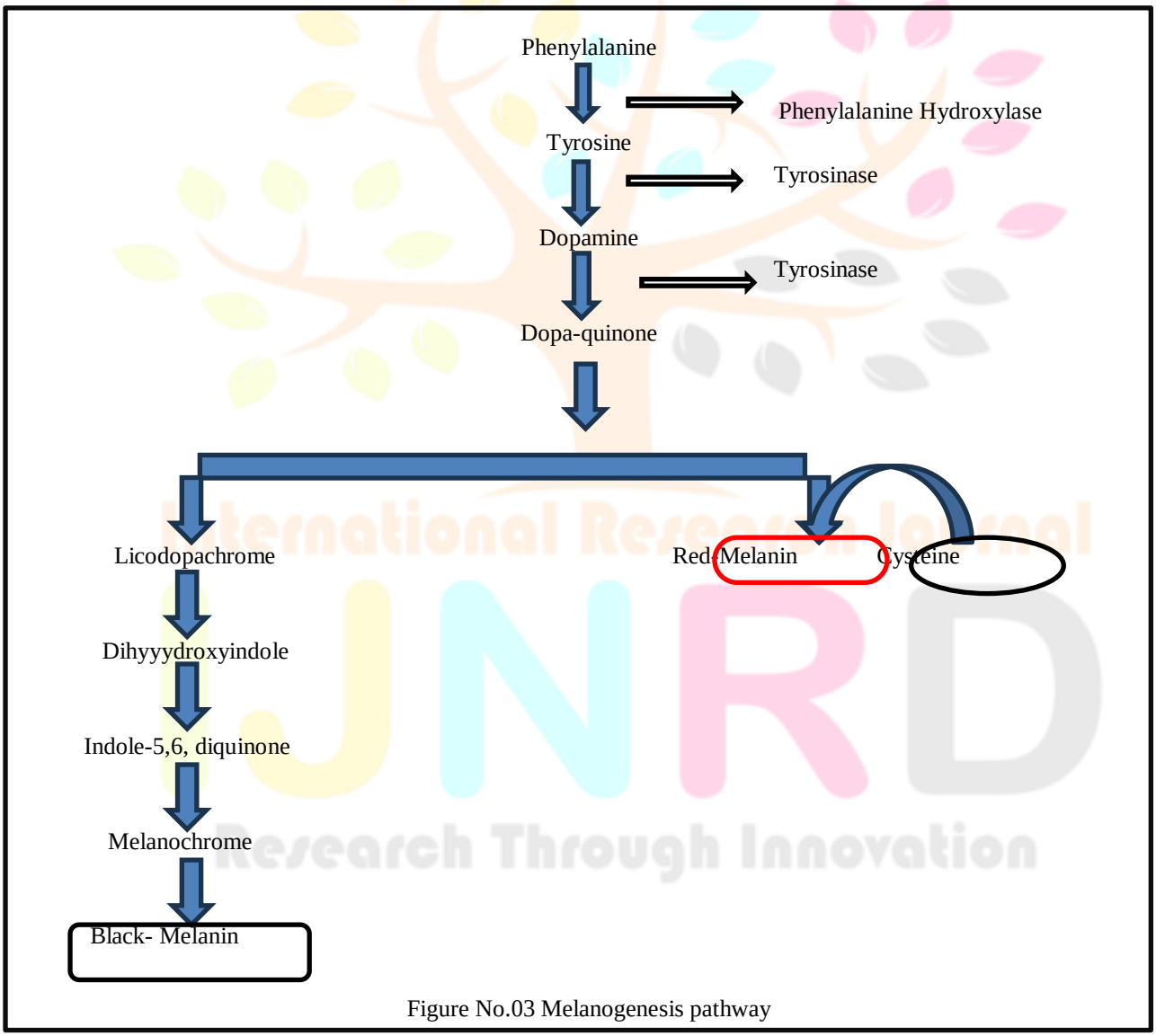

Figure No.03 Melanogenesis pathway

TYROSINASE INHIBITORS[3]

Plant derived compounds as potentially safe and effective Anti- melanin effect, have attracted great attention from many researches. Since tyrosinase is a crucial enzyme in synthesizing melanin through melanogenesis, it becomes the most prominent and successful target for melanogenesis inhibitors that directly inhibit the tyrosinase catalytic activity. Most of cosmetics or skin lightening agents

commercially available are tyrosinase inhibitors. The fact that the inhibitors target tyrosinase may specifically inhibit the melanogenesis in cells without side effects, as tyrosinase is exclusively produced only by melanocytes. Many tyrosinase inhibitors such as Glycyrrhizic acid, Curcumin, Alosein,Arbutin, ellagic acid, eugenol, have been used as skin-whitening agents[3]

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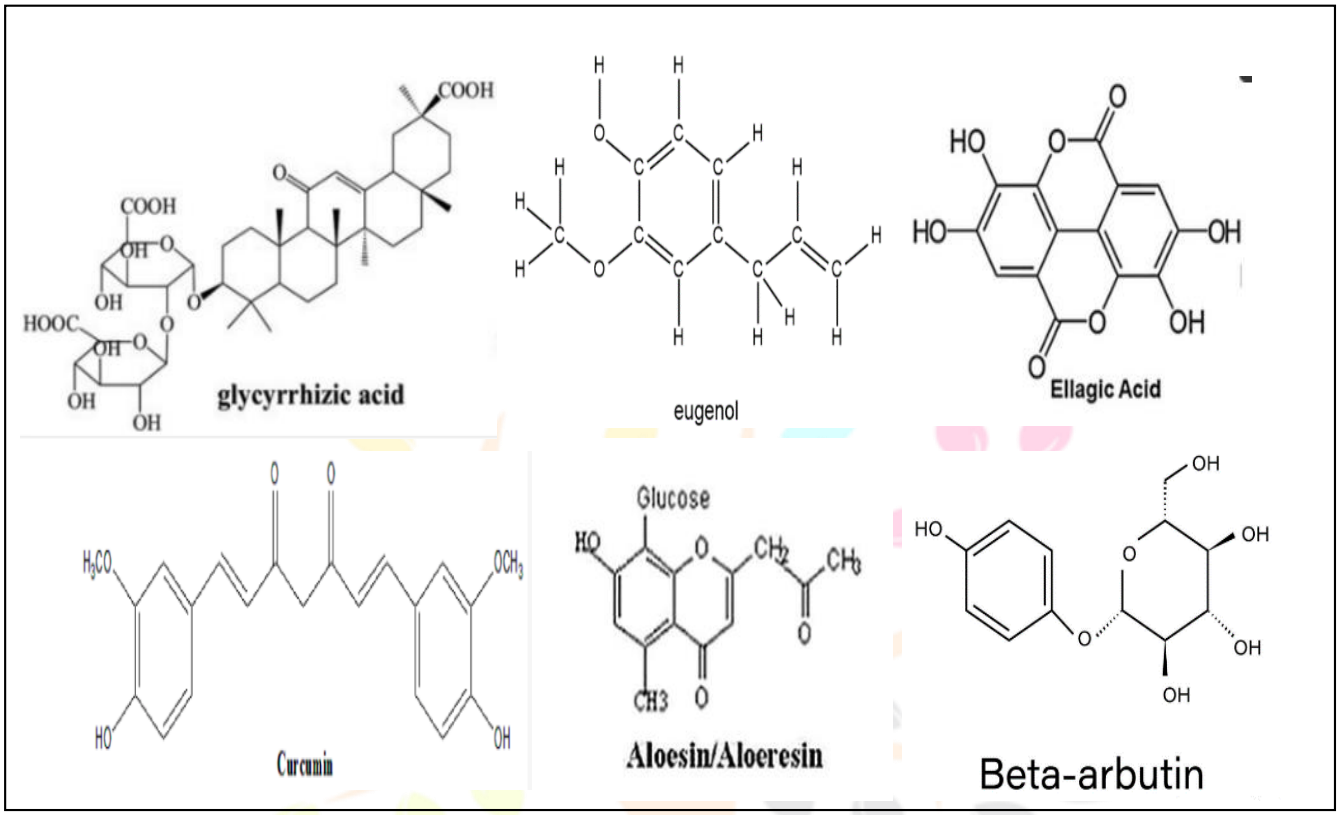


Figure No 4: Chemical structure of well-known tyrosinase inhibitors as skin lightening agent

CREAMS[6]

Creams are the topical medications which can be applied on the skin. Creams are defined as thick liquid or semi-solid mixes of either the oil painting- in- water or water- in- oil painting type ‖ lozenge forms which thickness varies by oil painting and water. Creams are used in dress for farther purposes like sanctification, beautifying, perfecting appearances, defensive or for remedial function. These topical phrasings are used for the localized effect for the delivery of the medicine into the underpinning subcaste of the skin or the mucous membrane.

TYPES OF SKIN CREAMS[6]

They're divided into two types

1.Oil - in- Water(O/ W) creams which are composed of small driblets of oil dispersed in a nonstop phase, and an emulsion in which the oil is dispersed as droblets throughout the water phase is nominated an oil - in- water(O/ W) emulsion

2.Water - in- oil painting(W/ O) creams which are composed of small droblets of water dispersed in a nonstop unctuous phase. When water is the dispersed phase and an oil the dissipation medium, the emulsion is of the water- in- oil (W/ O) type

GENERAL INGREDIENTS USED IN SKIN CREAMS

The raw materials which are used in a manufacturing of skin creams include [1].

1.Water: This is the most important and widely used raw material in any cream formulation. These are the cheapest and easily available. In skin creams, water is used as solvent to dissolve other ingredients of creams. Water, which is free of any toxins, pollutants, microbes etc. is used in preparation of creams.

2.Oil, fats and waxes: Oil, fats and waxes and derivatives their form comprises an essential portion of creams. Waxes act as an emulsifier, fats act as a thickener and oil act as a perfuming agent, preservative, etc. according to its function. Oil may be two types 'mineral and glyceride

3.Mineral oil: Mineral oil consists of hydrocarbons derived from petroleum oil. Mineral oil rarely causes allergic reactions and it cannot become solid and clog pores of the skin. It is light weight and inexpensive, it helps to reduce water loss from the body and keeps body moisturized. Examples: Light liquid paraffin, Heavy liquid paraffin, Liquid petroleum.

4.Glyceride oil: Glyceride oil is mostly vegetable oils. Examples of glyceride oils are almond oil, arachis oil, castor oil, coconut oil, olive oil etc.

5.Vegetable oil: Form a barrier on the surface of the skin and slow down the loss of water, helping to maintain plumpness of skin. Vegetable oils may also be used to increase the thickness of the lipid or oil portion of cream or personal care products. E.g., Almond oil, germ oil, avocado oil, sunflower oil etc.

6.Waxes: Which are used in preparation of cream includes beeswax, carnauba wax, ceresin, spermaceti, etc. Waxes are used in cosmetics because it helps to keep an emulsion from separation of oil and liquid components. also increase the thickness of the lipid portion and sticks on the surface of the skin.

7.Fats: Different types of fats are used in the preparation of creams. These materials can be obtained from animals, plants or mineral origin. Glyceride oils and fats may be of animals or vegetable origin. The most common of these fatty acids are lauric, margaric, palmitic, stearic etc.

8.Lanolin: It is derived from wool fat of a sheep. Lanolin is of two types- the hydrous lanolin contains between 25%- 30% water. Anhydrous lanolin has point of 38°C-42°C and has a slight odour. These ingredients act as a lubricant on the skin surface, which gives the skin soft and smooth appearance. Lanolin helps to form emulsion and blends well with other substances used in cosmetic and personal care products.

9.Colours: Before the development of the modern technology, colours primarily came from substances found in nature such as turmeric, saffron, indigo, etc.

10.Emollients: Emollients, also commonly referred to as moisturizers, are products that help to soften skin or to treat skin that has become dry. Most emollients are forms of oil or grease, such as mineral oil, squalene, and lanolin.

11.Humectants: These are important multi-functional ingredients found in most skin care formulations. Humectants are hydroscopic organic compounds. These are the materials that can absorb or retain moisture. These has many benefits such as moisturization, exfoliation, etc. Examples of humectant are glycerin, Hydroxyethyl urea, betaine, sodium PCA, Sodium-Lactate, etc.

12.Perfumes: Perfume is a substance that imparts a scent or order, including a sweet and pleasant smell. Examples of natural perfumes used in creams are- White Blossoms: Rosy Dreams Orange Blossom

13.Vitamins: Vitamins plays an important role in maintaining the physiological function of whole body and the skin. Vitamin A, B, C, E etc. are generally used in formulation of the creams.

14.Preservatives: The use of preservatives in cosmetics is essential to prevent alteration caused by microorganism and contamination during formulation, shipment, storage and consumer use.

ADVANTAGES

- It is used as a skin moisturizer and cleanser
- It is helpful for skin softening and providing shiny texture to the skin
- It is used as a base on the skin before the application of any other cosmetics because it vanishes from skin surface once applied
- It is used to remove pimple and scares

- It is helpful to preventing skin chapping or roughening

DISADVANTAGES

- Vanishing creams are note to be used all the time.
- It does not remove scars, not meant to be used as complexing and Anita cream.
- It should be removed or washed of when note intended to be kept on the skin.
- These products have stability issues and hence should be stored at prescribed conditions.
- It might cause skin alleges reaction-itching, peeling, Irritation, reddening due to the presence of compound in the cream.

APPLICATIONS

- Sheen effect one characteristic due to which these vanishing creams are proffered is the' sheen effect'. Rather than giving a caked look to the face, they give a natural attractive sheen to the skin.
- Daily day creams.[7]

REVIEW OF LITERATURE

. **1. Shinde prajyakta et al(2020)**-formulation and evaluation of vanishing herbal Cream of crude drugs. The plant material is collected and identified and prepared using alcoholic extract of crude drugs including c offinale, turmeric, nutmeg, cinnamon. In this preparation steps include preparation of alcoholic extract of crude drugs, prepare the all phase, aqueous phase and addition of aqueous phase to oil phase

2. RavirajsinhGohli (2021). The main of research poly herbal vanishing cream and evaluate basis various evaluation parameter polyherbal vanishing cream were formulate various medicinal properties. Poly herbal vanishing cream formulated natural ingredients like mentha, clove, linseed, liquourice green tea, orange peel along with synthetic ingredients. evaluation of formulation F1&F2 were done on different parameter pH, stability e. t. c.

3. Bhavana D Tambe et al(2021) Formulation and evaluation of vanishing herbal cream of crude drugs. o/w 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 multipurpose cream and the ingredients mixed can produce synergistic effect of the other.

4.Chetana V Bhugadikattikar et al(2020) photochemical screening and preparation of vanishing cream from leaves of Acacia nilotica. Acacia leaves having antibacterial activity. The study was carried out on anti microbial activity for final formulation of prepared vanishing cream and photochemical screening of ethanolic extract, aqueous extract, acetone extract of Acacia nilotica.

5.Richard Lobo et al(2020) formulation and evaluation of antiseptic activity of the herbal cream containing Curcuma longa and Tea tree oil. The cream was prepared by using vanishing cream base incorporating the Curcuma longa 1% ethanolic extract and tea tree oil 5%.

6.**Ashwini S Dhase et al(2014)** formulation and evaluation of vanishing herbal cream of crude drugs. The purpose of the research work was to formulate and evaluate vanishing herbal cream. This cream shows fairness to skin. The prepared herbal cream has antioxidant and antibacterial activity. This cream have best properties and nutritional values.

7.R. E ugandar(2016)-formulation and evaluation of natural palm oil based vanishing cream. Vanishing cream prepared by using natural base from palm Oil and palm kern oil and standard vanishing cream using stearic acid were prepared. The cream were oil in water type of emulsion containing suitable combination of oil phase and aqueous phase along with preservative.

8. L.V vigneshwaran et al (2022) Formulation and evaluation of herbal face cream with green tea extract. The purpose of the work are to formulate and evaluate the herbal face cream with green tea extract, turmeric, aloe Vera gel as a skin toner. The herbal face cream was prepared by oil in water type of emulsion using mixture of alcoholic extract of crude drugs.

9.Kamal shindae (2017) Formulation and evaluation of poly herbal vanishing plus fairnes expert cream. herbal vanishing creams offer several advantages over other creams majority cream are synthetic orgin have several side effect itching or several allergic reaction.

10.PoojaGiradhkar (2021). The poly herbal cream is ready bu utilisation following that are curcuma loga, solanum lycoperisum, carica papaya, rose oil, olive oil, almond oil, refined water

11.Abhish aswal(2013). Prepare & evaluation of polyherbal cosmetic cream. The studies that composition of extracts and base of cream F6 & F7 are more stable and it more synergic action and safe to use for skin.

12.Sujith. S. Nair (2012). Formulation and evaluation herbal cream containing curcuma longa in this study cream were formulated on the antioxidant potential of herbal extract so it is evaluation.

AIM: -

The aim of this work is to formulate and evaluate herbal vanishing cream for anti-melanin effect and for glowing skin by using natural ingredients.

OBJECTIVE: -

- The main objective of this work is to formulate and evaluate herbal vanishing cream for anti-melanin effect and for glowing skin by using natural ingredients in varying concentration, ingredients such as Liquorice, Turmeric, Tulsi, Aloe-Vera, Pomegranate juice, Coffee, Green tea etc. Further this cream works as fairness expert by removing aging signs in daily life. It also contains nutritional value which provides nutrients to the skin.
- To study various methods of extraction.
- To study various properties of Liquorice, Turmeric, Tulsi, Aloe-Vera, Pomegranate juice, Coffee, Green tea.
- To study drug profile of Liquorice, Turmeric, Tulsi, Aloe-Vera, Pomegranate juice, Coffee, Green tea.

PLAN OF WORK

The present design, development and evaluation of anti-melanin activity on herbal vanishing cream. The study was proposed to carry out in the following study

Sr. No	**Work**
1	Literature Survey
2	Collection and Extraction of Herbal Ingredients
3	Mixing Of Extraction
4	Preparation Of Formulation

5	Evaluation Of herbal vanishing cream • Determination of pH • Viscosity • Determination of Spreadability • Skin Irritant test • Homogenesity • Smear test • Dilution Test • Stability test

Table No.01 Plan of work

REVIEW OF HERBS

The crude drugs used in this study were procured from the nearby local area. Chemical constituents are extracted from all the ingredients used in these formulations by various process and methods. The following ingredients were used for the preparation of this polyherbal vanishing cream formulation.

SL. NO	HERB	BOTANICAL NAME	FAMILY
1	Liquorice	*Glycyrrhiza glabra Linn*	*Leguminosae*
2	Turmeric	*Curcuma longa*	*Zingiberaceae*
3	Aloe-Vera	*Aloe Barbadensis*	*Liliaceae*
4	Tulsi	*Ocimum sanctum Linn*	*Labiatae*
5	Pomegranate	*Punica granatum*	*Lythraceae*
6	coffee	*Coffea Arabica Linn*	*Rubiaceae*
7	Green tea	*Camellia Sinensis*	*Theaceae*
8	Lavender Oil	*Lavandula angustifolia*	*Lamiaceae*

Table No.2: List of herbs

1.Liquorice(*Glycyrrhizaglabra*): Synonyms:

Radix Glycyrrhizae, Sweet liquorice.

Biological Source:

Liquorice consists of subterranean peeled and unpeeled stolons, roots and subterranean stems of *Glycyrrhiza glabra* Linn, and otherspecies of *Glycytrhiza*, belonging to family Leguminosae[13]

Geographical Source:

It is mainly found in China, Europe, India, Iraq, Japan, Kurdistan, Spain, Turkey, and the United States.

Chemical Constituents:

The chief constituent of liquorice root is Glycyrrhizin (6–8%), obtainable in the form of a sweet, which is 50 times sweeter than sucrose, white crystalline powder, con-sisting of the calcium and potassium salts of glycynhizic acid. Glycyrrhizic acid on hydrolysis yields glycyrrhetic or glycyrrhetinic acid.Glycyrrhizinic acid is a triterpenoid saponin having α-amyrine structure. It shows especially in alkaline solu-tion frothing but it has very weak haemolytic property

Pharmacological Action

Glycyrrhizin is a powerful antioxidant, glycyrrhiza glabra root, which is what you'll find as the key ingredient in our brightening serum. Glycyrrhiza glabra contain glabridin is act as UV fighting super ingredients. Also Glycyrrhiza is widely used as a sweetening agent and in bronchial problems such as catarrah, bronchitis, cold, flu and coughs. It reduces irritation of the throat and yet has an expectorant action. It produces its demulcent and expectorant effects. It is used in relieving stress. It is a potent healing agent for tuberculosis, where its effects have been compared to hydrocortisone.

2.Turmeric (*Curcuma longa*)[14]:

Figure No. 7-Fresh turmeric

Figure No. 8-Dry turmeric.

Synonyms:
Saffron Indian; haldi (Hindi); Curcuma; Rhizoma cur-cumae.

Biological Source:
Turmeric is the dried rhizome of *Curcuma longa* Linn. (syn. *C.domestica* Valeton)., belonging to family Zingiberaceae.

Geographical Source:

The plant is a native to southern Asia and is cultivated extensively in temperate regions. It is grown on a larger scale in India, China, East Indies, Pakistan, and Malaya.

Chemical Constituents
Turmeric contains yellow coloring matter called as curcuminoids (5%) and essential oil (6%). The chief constituent of the coloring matter is curcumin I (60%) in addition with small quantities of curcumin III, curcumin II and dihydrocurcumin. The volatile oil contains mono- and sesquiterpenes like zingiberene (25%), α-phellandrene, sabinene, turmerone, arturmerone, borneol, and cineole. Choleretic action of the essential oil is attributed to β-tolylmethyl carbinol.

Pharmacological Action:
Turmeric is used as aromatic, anti-inflammatory, stomachic, uretic, anodyne for billiary calculus, stimulant, tonic, carminative, blood purifier, antiperiodic, alterative, spice, colouring agent for ointments and a common household remedy for cold and cough. Externally, it is used in the form of a cream to improve complexion. Curcumin is inhibiting the action of alfa (MSH)melanocyte stimulating hormone and also activated (ERK) Extracellular regulated protein kinase pathway. Once it activated then tyrosinase action is depressed.

3.Aloe-Vera (*Aloe Barbadensis*)
Synonyms
Aloe, Alovera, Guarpatha

Biological Source
It consists of dried juice of leaves of Aloe barbadensis Miller and Aloe Africana belong to family *Liliaceae*

Geographical Source
Most of the species of aloe are indigenous to Africa. But now introduced into West Indies and Europe. It is cultivated through India but especially in North west Himalayas.

Chemical Constituents
The most important constituents of Aloes are the three isomers of Aloins, Barbaloin, β-barboloin and Isobarbaloin, which constitute the so-called 'crystalline' Aloin, present in the drug at from 10 to 30%. Other constituents are amor-phous Aloin, resin, emodin and Aloe-emodin. Barbaloin is present in all the varieties; it is slightly yellow coloured, bitter, water soluble, crystalline glycoside. Isobarbaloin is a crystalline substance,

present in Curacao aloe and in trace amount in Cape aloe and absent in Socotrine and Zanzibar aloe. The chief constituents of Socotrine and Zanzibar aloe are Barbaloin and β-Barbaloin.

Pharmacological Action:

The clear gel of the leaf makes an excellent treatment for wounds, burns and other skin disorders, placing a protective coat over the affected area, speeding up the rate of healing and reducing the risk of infection. Two chemicals in the aloe vera plant, aloin and aloesin, have been shown to lighten skin pigmentation. Aloin has been demonstrated to break up melanin in the skin, while aloesin prevents melanin formation by inhibiting the activity of tyrosinase, an enzyme responsible for melanin production.[23]

4.Tulsi*(Ocimum sanctum Linn)*[22]

Synonyms

Sacred basil, Holy basil, Tulasi.

Biological Source

Tulsi consists of fresh and dried leaves of *Ocimum sanctum Linn*., belonging to family Labiatae.

Geographical Source

It is a herbaceous, much branched annual plant found throughout India, it is considered as sacred by Hindus. The plant is commonly cultivated in garden and also grown near temples. It is propagated by seeds. Tulsi, nowadays, is cultivated commercially for its volatile oil.

Chemical Constituents

Tulsi leaves contain bright, yellow colored and pleas-ant volatile oil (0.1 to 0.9%). The oil content of the drug varies depending upon the type, the place of cultivation and season of its collection. The oil is collected by steam distillation method from the leaves and flowering tops. It contains approximately 70% eugenol, carvacrol (3%), and eugenol-methyl-ether (20

Uses

Take a handful of tulsi leaves, crush them and add some water to make a paste Overproduction of melanin, pollution and the harsh UV rays are the main causes of uneven tone or hyper pigmentation. But, the good news is that tulsi can effectively lighten your skin tone. Its detoxifying effects gives relief from pollution, heat, stress as well as certain skin conditions. Tulsi contains essential oils which help nourish and moisturize the skin and improve the skin complexion

5.Pomegranate (*Punica granatum*)

Synonyms

- Grana
- tum punicum
- Punica florida
- Punica grandiflora
- Punica nana L.
- Punica spinosa

Biological Source:

Fruit of *Punicagranatum* split open to reveal clusters of seeds with sarcotesta on the inside, and a glass of juice.

Family

Lythraceae

Taxonomy

- Kingdom: Plantae
- Division: Magnoliophyta
- Class: Magnoliopsida
- Order: Myrtales
- Family: Punicaceae
- Genus: *Punica*
- Species: *granatum*
- Binomial name: *Punica granatum*

Pharmacological Action:

It was demonstrated that the skin-whitening effects of pomegranates are due to the inhibition of melanocyte proliferation and melanin synthesis by tyrosinase in melanocytes. However, the inhibitory effects of pomegranates on melanogenesis have not been fully examined. Pomegranate contains large amounts of ellagic acid and other organic materials, including flavonoids and polyphenols, more than either red wine and polyphenols[22]

6. Coffee (*Coffea Arabica Linn*)[24]

Synonyms

Coffee bean, coffee seed, Arabica coffee, Arabian coffee, Abyssinian coffee, Brazilian coffee.

Biological Source

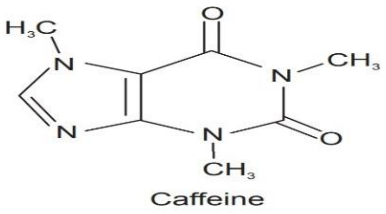
It is the dried ripe seeds of *Coffea arabica* Linn, belonging to family Rubiaceae.

Geographical Source

It is indigenous to Ethiopia, Brazil, India, Vietnam, Mexico, Guatemala, Indonesia and Sri Lanka.

Chemical Constituents

The main constituents of coffee are caffeine, tannin, fixed oil and proteins. It contains 2–3% caffeine, 3–5% tannins, 13% proteins, 10–15% fixed oils. In the seeds, caffeine is present as a salt of chlorogenic acid. Also, it contains oil and wax.



Caffeine

Chemical Tests

1. Caffeine and other purine alkaloids, gives murexide colour reaction. Caffeine is taken in a petridish to which hydrochloric acid and potassium chlorate crystals are added and heated to dryness. A purple colour is obtained by exposing the residue to vapours of dilute ammonia. In addition of fixed alkali, the purple colour disappears.
2. Caffeine also produces white precipitate with tannic acid solution.

Uses

The grounds do not dissolve in water, which makes them good at scrubbing away dead skin cells. Caffeine has potent antioxidant properties. It helps protect cells against the UV radiation and slows down the process of photo aging of the skin.Alsoexamine the potential of coffee pulp extract as antityrosinase agents, the extract was incubated with LDOPA. Tyrosinase is the rate-limiting step in melanin production which plays a role in skin protection against UV radiation

7. Green tea (*Camellia sinensis*)

Synonyms

Camellia thea

Biological source

Tea contains prepared leaves and leaf buds of *Thea Sinensis Linn*.

Family

Theaceae

Geographical source

It is cultivated in India, Srilanka, Indonesia, China, and Japan. In India, it is cultivated in North-Eastern India (mainly in Assam and Bengal), South India (in Nilgiri, Palni, Annamalai hills in Tamilnadu, Kerala, and Karnataka states), and northwest India (in Dehradun, Almora, and Garhwal district of Uttaranchal, Kangra valley and Mandi district of Himachal Pradesh).

Uses

Green tea contains vitamin E that is known for its ability to nourish and hydrate the skin. It not only moisturizes the skin, but also brightens and repairs it. This ingredient helps to reverse sun damage and fades dark spots, pimple spots, and other skin irritations caused by environmental aggressors. Green tea is also anti-inflammatory, which can be helpful for people with acne-prone skin.[25]

8. Lavender oil (*Lavandula angustifolia)*

Synonyms

- Stoechas Mill
- Fabricia Adans.
- Styphonia Medik.
- Chaetostachys Benth.

Family

Lamiaceae

Biological Source

Lavender (*Lavandula angustifolia*) is a shrub of the family Lamiaceae, native to the Mediterranean region.

Description

The Latin name for the lavender genus is Lavandula. The most commonly used lavender is a hybrid, lavandin, which is a widely used cross between two Lavendula species: *L. angustifolia* and *L. latifolia*. Lavender oil is used in cosmetics. It applies topically on the skin. It helps to reduce hyperpigmentation and lighten the skin. Lavender oil is also used to treat skin problemsAlso used for the perfumes.

MATERIAL & METHOD:

1.CHEMICALS:

Ingredients	Uses	Obtained From
1)Main Ingredient Eg:- stearic acid	It controls the cream consistency and imparts pearlescent property by forming crystals	Sarsamcollege ofpharmacy,Palshiwadi.
2)Humectants Eg:- Glycerin, sorbitol,	It prevents excessive drying of the cream	Sarsam college of pharmacy,Palshiwadi.
3)Alkalies Eg:- a)Potassium hydroxide	It imparts fine texture and consistency without providing harshness	Sarsam college of pharmacy,Palshiwadi.
4)Sodium hydroxide	It is used with potassium hydroxide, since if used alone it makes the cream hard	Sarsam college of pharmacy,Palshiwadi.
5)Carbonates, ie potassium and sodium carbonate	They are used because they liberate carbon dioxide and makes the skin spongy	Sarsam college of pharmacy,Palshiwadi.
6)Ammonia	It is effective, but difficult to handle.	Sarsam college of pharmacy,Palshiwadi
7)Borax	It is used with potassium hydroxide to produce white emulsion.	Sarsam college of pharmacy,Palshiwadi
8)Emulsifying agents Eg:- Triethanolamine soap, amino glycol soap or glyceryl monostearate		Sarsam college of pharmacy,Palshiwadi
9)Purified water (i. e, Distilled and Deionised)	It provides stability to the cream. If hard water is used, it forms soap of lime and magnesium, which causes inversion of emulsion and hence reduces stability.	Sarsam college of pharmacy,Palshiwadi
10)Preservatives Eg:- Methyl paraben, Propyl paraben	They prevent deterioration caused by bacteria and fungi.	Sarsam college of pharmacy,Palshiwadi
11)Perfume, i. e, Perfume solvent or Perfume dissolved in alcohol. They should be added when the cream attains 40 Celsius temperature. Eg:- Geranium, sandalwood, lavender oil, terpineol etc	It provides odour to the cream and also has aesthetic value.	Sarsam college of pharmacy,Palshiwadi

Sr. No.	Name of ingredients	Formulation (F1)	Formulation (F2)	Formulation (F3)
1	Liquorice extract	3.42 g	3.20 g	3.20 g
2	Turmeric extract	1.55 g	0.55 g	0.20 g
3	Pomegranate extract	1.55 g	1.55 g	2.00 g
4	Coffee extract	0.55 g	0.55 g	0.45 g
5	Green tea extract	0.55 g	0.55 g	0.55 g
6	Tulsi extract	1.55 g	1.70 g	2.00 g
7	Aloe-Vera extract	1.50 g	2.50 g	1.50 g
8	Glycerin	1 ml	1 ml	1ml
10	Stearic acid	5.8 g	5.8 g	5.8 g
11	Potassium hydroxide	0.28 g	0.28 g	0.30 g
12	Borax	2.00 g	1.75 g	1.70 g
13	Lavender oil	Q.S	Q.S	Q.S

Table No.04Chemicals

2.FORMULATION:

Table No: 05 Formulation

3.GLASS WARES:

Sr. No.	Glass wares
1	Soxhlet Apparatus
2	Beaker
3	Thermometer
4	Measuring cylinder
5	Funnel and stirrer
6	Water bath

4.EXTRACTION PROCESS OF SOME HERBAL INGREDIENTS

1.*Glycyrrhiza glabra* roots extract:

*Glycyrrhiza glabra*root extract was prepared by maceration method:

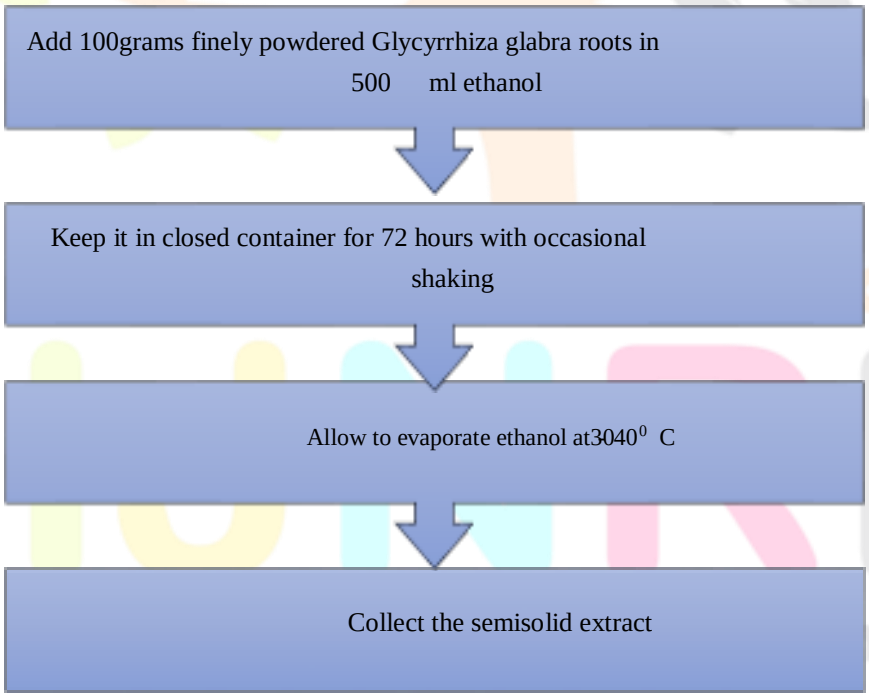


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Fig 16: Liquorice powder

Fig. 17: Aqueous extract of Liquorice

2. Preparation of alcoholic extract of Turmeric:

Turmeric (40gm) was taken into RBF and 95ml of ethanol and 5ml of water were added to it.

Then RBF was connected with Soxhlet apparatus. Then the mixture was heated at temperature of 70°C till maximum exhaustion of the drug. After that filtered the mixture and used it for formulation.

Fig 19: Turmeric powder

Fig. 20. Alcoholic extract of Turmeric

3.Aloe vera extract

Firstly, healthy and mature aloe-vera leaves are collected and dried. After drying outer section of aloe-vera leave is dissected using sterile knife. The aloe-vera gel is then removed using sterile knife. Then it is filtered and the filtered clear solution is used for herbal cream preparation.

Fig 21: Aqueous extract of Aloe-vera

4.Tulsi Extract

Tulsi leaves are collected and dried for 3-4 days naturally. After the leaves get dried, they are crushed or powdered to make fine powder. Then 1 g Tulsi powder was taken into a beaker and dissolved in 10ml dimethyl sulfoxide. Then it shaken vigorously and then it was heated on water bath at 80-100°c.Then it was filtered to improve any impurities present. After that the filtered clear solution was used for preparation of herbal cream.

Figure No.22: Tulsi powder

Figure no 23: Aqueous extract of Tulsi

5. Green tea extract

The green tea plant materials are collected. They were dried in shade and then grinded to form coarse particle. The green tea is then extracted using hydro alcoholic solvent that is a cold maceration process at the ratio 70:30. Then the extract is dried properly and then used for herbal cream preparation.

Fig 24: Green tea

Figure 25 Aq. Extract of green tea

METHOD OF PREPARATION:

Preparation of alcoholic extract of crude drugs:

All above mentioned powdered crude drugs of 5gms were taken into the conical flask and then100ml. Of ethanol was added to it, and then the conical flask was capped with aluminium foil. Then this mixture was placed for maceration for 5 days

Two beakers were taken and labelled it as A and B

I) Preparation of oil phase

1) Stearic acid was taken into beaker A and this mixture was melted at 70ºC temperature.
2) vitamin-E oil was added in beaker A.

II) Preparation of aqueous phase

1) Potassium hydroxide and borax and water were taken in another beaker (B).
2) Alcoholic extract of crude drugs &Glycerin was added in the beaker B and heated this mixture at 70ºC temperature.

III) Addition of aqueous phase to oil phase

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

STORAGE

1) Stored in a well closed container at a temperature not exceeds 25°C
2) Stored in a cool place

LABELLING

Label should indicate the following.

1) Name of the ingredients
2) Batches
3) Mfg date
4) Exp date

5) Manufactured by
6) Storage condition
7) Direction (for external use only)
8) Special instructions if any

EVALUATION OF VANISHING CREAM

1. Morphological Evaluation:

Some important morphological evaluation parameters are colour, odour, appearance, texture, smoothness etc. it shows the external characters of the formulation.

Sr no	**Parameters**	**Observation**
1	Appearance	Smooth
2	Colour	Light Yellow
3	Odour	Pleasant
4	Texture	Smooth
5	Smoothness	Smooth

Table No: 06Morphological Evaluation of Vanishing cream

2. Determination of pH:

Accurately weighed 2 g of the sample was dispersed in 30 ml of water. The pH of the emulsion was determined at 27°C using digital pH meter.

Sr.no	Parameter	Observation
1	pH	6.92
2	pH	6.87
3	pH	6.89

Table No.07: determination of pH

3. Homogeneity

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

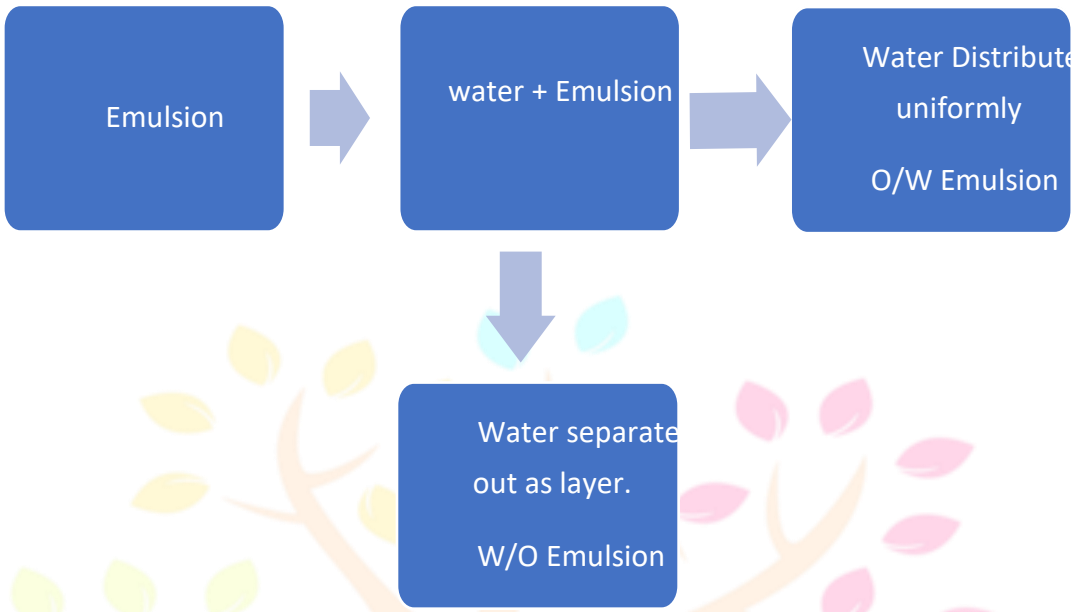
4. Emolliency

After application, the cream residue was not found on the skin surface.

5. Type of smear

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

6 .Dilution test



7. Irritancy test

Marked an area(1sq. cm) on the left - hand dorsal surface. The cream was applied to the specified area and time was noted. Irritancy, erythema, edema, were checked if any for regular intervals up to 24 hrs and reported. This formulation is used for external surface. The prepared formulation is showing the absence of Irritation, redness, and swelling during irritancy studies.

Sr No	Evaluation	Observation				
		Day 01	Day 02	Day 03	Day 04	Day 05
1	Irritant	No	No	No	No	No
2	Erythema	No	No	No	No	No
3	Edema	No	No	No	No	No

Table No: 08 Irritancy test

8.Stability studies The prepared formulation was required for testing of stability by storing at different temperature conditions for period of one month, temperature conditions like, room temperature and at 40°C and were evaluated for physical parameters like colour, odour, pH and consistency

Table No: 09 Stability test

Sr No	Parameter	Observation					
		Room tempreture			**38°C – 42°C**		
		F1	F2	F3	F1	F2	F3
1	Colour	No change	No change	No change	No change	Yellowish	Light yellowish
2	Odour change	No change	No change	No change	No change	No change	No change
3	Smoothness	Smooth	Smooth	Smooth	Smooth	Smooth	Smooth
4	Ph	6.92	6.87	6.89	7.01	7.01	7.19
5	Texture	Slightly Smooth	Smooth	Smooth	Smooth	Smooth	Smooth

RESULT AND DISCUSSION

1. Physical Parameter:

The different formulation of vanishing cream was prepared and evaluated for physical parameters.The colour of formulation was light yellowish in colour. The odour of prepared formulations was good acceptable which is desired as cosmetic formulations. The pH of all formulations lied near to neutral range i.e. in the range of 6 to 7 pH.All three formulations F1,F2&F3 was found safe to use for skin. The cream was found that the cream produced non-greasy film on the skin surface. All formulation can be a safely used on the skin. The cream was found that the cream was homogeneous and smooth consistent in nature.The state of the formulation was semi-solid and homogeneous in nature.It was found that the cream produced a non-greasy film on the skin.

2.Irritancy test:

The results of irritancy were shown in table no.08. The formulation F1 showed mild irritation because of presence of turmeric powder. The F1, F2&F3 formulations which was prepared by lowering the concentration of turmeric and another formulation do not show redness, edema, inflammation and irritation during irritancy studies. These formulations were easily washable.

3.Stability studies:

Stability studies showed in table no. 09. There was observed slight change in colour and pH of formulation which was studied at room temperature and at accelerated temperatures i.e. 38 to 48°C temperature and no change were observed in odour. All three formulation F1, F2 &F3 are stable and can be safely used on the skin. The multipurpose herbl cream is safe for use.

SUMMERY &CONCLUSION

Skin care problems are considered the major difficulty these days. There are numerous products that are available in the market among which the majority are synthetic products. Synthetic products are more harmful than natural products. it is necessary to change some herbal formulation which has good results and which reduces dark spot on the skin, acne, wrinkle in the skin.The main aim of our work is developing an herbal cream which can gives effects as glow on skin, reduce dark spot on the skin, acne, wrinkle, give a good appearance to the customer.

Natural remedies are the simplest treatment of any illness, because these are safer than the artificial ones. At a time, people want treatment for varied skin issues without side effects, thus natural remedies are most suitable choice for this. The herbal vanishing cream prepared was applied on the skin to maintain the elasticity of the skin, remove adhered dirt particles and to improve the blood circulation. It is applied for the treatment of inflammatory diseases, marks, and provides a soothing, calming and skin whitening effect on the skin. The natural vanishing cream are used for controlling premature aging to the skin, wrinkles, fine lines and loosing of skin. It will give natural skin tone once using this. It's a really good combination of herbal vanishing cream containing naturally available ingredients like turmeric, aloe vera, Liquorice, coffee, green tea, pomegranate, Tulsi and lavender oil.

All three herbal formulation contained natural ingredient likeliquorice, turmeric, Tulsi, aloe vera, coffee, green tea & pomegranate

Results of Vanishing Cream

shows the anti-melanin effect. Based on the result, we can suggest all the three formulations F1, F2&F3 were stable at room temperature and can be safely used on the skin.

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