



A Research on Formulation and Evaluation of Herbal Skin Cream

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ABSTRACT

Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthesis one. Skin aging is a complex biological process influenced by a combination of endogenous or extrinsic factors. Because of the fact that skin health and beauty is considered one of the principal factors representing overall 'well-being' and the perception of 'health' in humans, several anti-aging strategies have been developed during the last years. It is the intention of this article to review the most important anti-aging strategies that dermatologists have nowadays in hand, including preventive measurements, cosmetological strategies, topical and systemic therapeutic agent and invasive procedures. The evaluation of all formulation was done on different parameters like pH and stability were examined. Formulation examined. Formulation showed good consistency, homogeneity, appearance, and pH, no evidence of phase separation and ease of removal. The formulation shows no redness, edema, inflammation and irritation during irritancy studies. These formulations are safer to use for skin. These studies suggest that composition of extract and base of cream of are more stable, it may produce synergistic action.

Key word: Anti aging, Antioxidants, formulation, dermatologists, cosmetological strategies, prevention.

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INTRODUCTION

The concept of beauty and cosmetic is an ancient as mankind and civilization. Women are obsessed with looking beautiful. Skin aging is a part of a natural human 'aging mosaic' which becomes evident and follows different trajectories in different organ, tissues and cell with time. While the aging signs of internal organs, are masked from the ambient 'eyes' the skin provides first obvious marks of the passing time [1].

The word cosmetic derived from a Greek word- Kosmesticos that mean to adorn. From that time any material used to beautification or promoting appearance is known as cosmetics various type of natural material are used for these purpose. The cosmetics according to the Drug and Cosmetic Act is defined as the substance intended to be applied to the human body for cleansing, beautification promoting, attractiveness and altering the appearance without affecting the body structure and function. cosmetic are any formulation or article intended to be rubbed, poured, sprinkled or spray on or introduced into or otherwise applied to human body or any part for cleansing, beautification, promoting attractiveness and altering the appearance and include any formulation or article intended for use as component of cosmetic. The natural and their product when used for their aromatic value in cosmetics preparation the increased demand of natural product has created new avenue in cosmoecutical market [2].

Cosmetic product is used to protect skin against exogenous and endogenous and harmful agent and enhance the beauty of skin. The uses of cosmetics are not only beautifying the skin but also achieving the good health by reducing the skin disorders. The natural or synthetic ingredient are used in these formulation because it support the health, texture and integrity of skin, moisturizing, maintaining elasticity of skin by reduction of type 1 collagen and photoprotection. The cosmetic product are best choice to reduce the skin disorders such as higher pigmentation, skin aging, skin wrinkling, and rough skin texture [3, 4].

The Drug and Cosmetic act specify that herbs and essential oil used in cosmetics must not claim to penetrate beyond the surface layer of nor should have any therapeutic effect. The herbal cosmetics manufactured and used commonly for daily purpose include herbal face wash, herbal cream, herbal conditioning herbal soap herbal shampoo etc. Herbal cosmetics are defined as the beauty product which

posses desired physiological activity such as healing smoothening enhancing and conditioning property because of herbal ingredient.

The herbs are used in crude or extract form these herbs should have different properties like antioxidant, anti-inflammatory, antiseptics, emollient, antibacterial etc. Cosmetics are prepared or formulate to reduce wrinkles fight acne and to control oil secretion for various types of skin protective, Anti acne, Anti wrinkle, anti aging and designed using different type of materials either different types of materials either natural or synthetics.

Creams are solid or semisolid polyherbal formulation. water is important ingredient of skin creams as moisture content of the skin control the appearance of the skin therefore in skin cream either fatty phase (oil) can be dispersed in aqueous phase (water) therefore this types of emulsion is called as oil in water type of emulsion (o/w) containing suitable emulsifying agent and herbal extract of lemon peel and turmeric. These herbs have been selected depend on the value of herbal traditional system.

MATERIAL AN METHODS

EXPERIMENTAL WORK

Row Herbs Collection

All crude drug are collected form vagdoly Ayurvedic Medical Shop Satara.

Table No: 1(Uses of crude drug)

Crude Drug	Uses
Lemon peel (Citrus Limon)	Anti aging , Carminative ,perfuming agent Flavouring agent, Anti -aging
Turmeric (curcuma Longa)	Condiment, Colouring agent ,spice ,anti inflammatory drug ,food additive, Anti aging

METHOD OF PREPARATION

Stapes carried out in preparation of Antiaging cream were as follows.

Preparation of extract of crude drug

Aqueous extract (Lemon peel, Turmeric)

5 gm of each ingredient weighted accurately and dissolve each in 50 ml of water .This solution is placed on water bath at 80 – 100 Temperature. The heating solutions were concentrated up to 20 ml then follow filtration process of each ingredient and collect the each filter product.

Preparation of oil phase

Bees wax, propylene glycol and mineral oil were taken into one porcelain dish and this mixture was melted at 75°C.

Preparation of aqueous phase

Aqueous extract of crude drugs maintain in step-1, propyl paraben, steric acid and water were taken into another porcelain dish and heated this mixture at 75°C.

Addition of aqueous phase to oil phase

The aqueous phase was added into the oil with continuous stirring at 75°C

Addition of an aqueous phase to the oil phase

The aqueous phase was added into the oil phase with continuous stirring at 75°C. Now once the transfer was completed it was allow cooling at room temperature, all the while being stirred. Perfume was added at last just before the finished product was transfer to suitable container. Then cream was evaluated for various physical parameters.

Formulation of herbal extract:

Table no.2 (Formulation of Herbal Extract)

Sr.no	Ingredient	Extract 2%	Extract 4%	Extract 6%
1.	Lemon peel	0.4	0.8	1.2
2.	Turmeric	0.4	0.8	1.2

Formulation of Herbal Cream:

Table no.3 (Formulation of Herbal Cream)

Sr.no	Ingredients	F ₁	F ₂	F ₃
1	Extract	2 ml	4 ml	6 ml
2	Bees wax	5.3 gm	4.3 gm	3.3 gm
3	Propylene glycol	1.5 gm	1.5 gm	1.5 gm
4	Steric acid	1 gm	1 gm	1 gm
5	Mineral oil	7 ml	5 ml	3 ml
6	Propyl paraben	0.2 gm	0.2 gm	0.2 gm
7	Rose oil	1 ml	1 ml	1 ml
8	Water	5 ml	5 ml	5 ml

EVALUATION TEST FOR ANTI - AGING CREAM OF LEMON PEEL

Test is very essential to maintain a uniform standard for Anti aging cream of lemon peel and safety. Keeping this Evaluation view in the formulated anti aging cream of lemon peel was evaluated on the various parameters such as follow.

Physical Evaluation

Colour

Odor

Texture

Homogeneity: -

The formulation was tested for the homogeneity by visual appearance & by touch.

pH of cream: -

pH was calibrated by using standard buffer solution. The pH of various formulations was determined by using digital pH meter. About 1 gm of cream was dissolved in 100 ml of Distilled water and store for two hours. The measurement of pH of each formulation was done in triplicate and average values were calculated.

Irritancy: -

Mark an area (159.cm) on Left hand dorsal surface. The formulated cream applied particular area & time was noted. Irritancy, Erythema, Edema check on 24 hours.

Wash ability: -

A small amount of cream applied on hand and washed under running tap water.

Phase separation: -

The formulated cream was kept intact in close container at 25 -300 not exposed to light. Phase separation was carefully every 24 hrs for 30 days .Any change in phase separation was checked.

Stability testing:-

Stability testing of prepared formulation was conducted for most stable formulation room temp studied for 7 days. The formulation was kept at room temp.

RESULT**Physical Properties of Formulated Cream :**

The physical properties & all formulated cream were judged by its color. Odour & texture

Table no: 4 (Physical Properties of Formulated Cream)

TEST	F ₁	F ₂	F ₃
Colour	Faint yellow	Faint yellow	Faint yellow
Odour	characteristics	characteristics	characteristics
Appearance	Semi-solid	Semi-solid	Semi-solid

pH of cream:

The result of P^H of prepared cream was found to be around 6 which are suitable for topical application.

Table no: 5 (P^H of cream)

Sr. no	Formulation	pH
1	F1	6.3
2	F2	6.1
3	F3	6.5

Irritation Test:**Table no: 6 (Irritation Test)**

Test	F ₁	F ₂	F ₃
Irritation test	No irritation	No irritation	No irritation

Wash ability:**Table no: 7 (Wash ability)**

Parameter	F ₁	F ₂	F ₃
Wash ability	Easily wash	Easily wash	Easily wash

Stability test For formulation F₁**Table no: 8 (Stability test for formulation F₁)**

Test	After 5 days	After 10 days	After 15 days
Physical appearance	Semi-solid	Semi-solid	Semi-solid
Texture	Ok	Ok	Ok
Colour	No change	No change	No change
Odor	Characteristics	Characteristics	Characteristics
pH	6.3	6.3	6.3
Degradation of product	Nil	Nil	Nil

For Formulation F₂**Table no: 9 (Formulation F₂)**

Test	After 5 days	After 10 days	After 15 days
Physical appearance	Semi-solid	Semi-solid	Semi-solid
Texture	Ok	Ok	Ok
Colour	No change	No change	No change
Odor	Characteristics	Characteristics	Characteristics
pH	6.1	6.1	6.1
Degradation of product	Nil	Nil	Nil

For Formulation F₃**Table no: 10 (Formulation F₃)**

Test	After 5 days	After 10 days	After 15 days
Physical appearance	Semi-solid	Semi-solid	Semi-solid
Texture	Ok	Ok	Ok
Colour	No change	No change	No change
Odor	Characteristics	Characteristics	Characteristics
pH	6.5	6.5	6.5
Degradation of product	Nil	Nil	Nil

DISCUSSION

Lemon peel and Turmeric are well known for their medicinal value in Indian traditional system of medicine and in ayurvedic preparations. In the present work, it was decided to extract and formulate herbal face cream. The herbal face cream was O/W type emulsion, hence can be easily washed with plane water that gives better customer compliance. There is a growing demand for herbal cosmetics in the world market and they are invaluable gifts of nature. Therefore, we tried to make an herbal face cream containing the extract of *lemon peel* and *turmeric* in different concentration along with rose oil. Our study indicated that the formulation F₁ to F₃ found to be more stable, while remaining formulations were not stable and resulted in breakdown of the emulsion when stored for long time. These formulations F₁ to F₃ had almost constant pH, homogeneous, emollient, non-greasy and easily removed after the

application. The stable formulations were safe in respect to skin irritation and allergic sensitization. The prepared herbal face cream is intended for cosmeceutical use rather than as other cosmetic. The extracts of *Turmeric* produces whitening of skin as well removing marks, healing and soothing to irritated skin. The extract of *Lemon peel* has antibacterial activity, anti-inflammatory activity, and also increases whitening of skin. The rose oil increases the glow on skin and has emollient properties. Hence all these properties are beneficial to normal human keratinocytes and it is safe and stable too. These studies suggest that composition of extracts and base of cream of F1 to F3 are more stable and also it may produce synergistic action.

CONCLUSION

The present work focuses on the potential of herbal extract for cosmetic purpose. The uses of cosmetic have been increased in many folds in personal care system. The use of bioactive ingredient in cosmetic influence biological functions of skins and provide nutrient necessary for the healthy skin. The prepared formulation showed good spread ability, no evidence of phase separation and good consistency during the study period. Stability parameter like visual appearance, nature and fragrance of the formulation showed that there was no significant variation during the study period. From the above study we can conclude that on combining that extract of Lemon peel, Turmeric effect such as whiting, anti acne, anti -aging effect on skin. As we know that it is not possible to increase extent of medicinal property of cosmetic property of single plant extract, but by combing the different plant extract it can be possible to increase the efficiency of extract.

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