

Formulation and Evaluation of Aloe vera Herbal Lotion

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Abstract: *The Herbal preparation is research by many more researcher and from new herbs obtained new herbal formulation. The herbal lotion formulation had no adverse Effect. The formulation of herbal lotion prepared from alovera gel and honey is useful for nourishing skin, and it also act as an anti-inflammatory, antiseptic and Antioxidant agent. The prepared lotion is evaluate irritancy test, acid value and pH measurement frequently. As moisturization is present in alovera gel it is use to Prevent dryness of skin during winter and during summer and also use to prevent acne and sunburn. The herbal lotion passes all evaluation test and has no side Effect hence it is safe to use for skin..*

Keywords: Herbal drugs, Herbal drug extract, alovera, Honey, coconut milk, Herbal formulation and Evaluation.

I. INTRODUCTION

Herbal formulation involve the natural ingredients which are used in cosmetic products. The features of the herbs are well-known. For example turmeric, Aloe vera etc. The origin of ayurveda in India by Rishi's also Denotes the best of ayurvedic herbs.

The word "Cosmetic" derived from a Greek word – "kosmestikos" that Means to adorn. From that time any Materials used to beautification or promoting appearance is known as Cosmetic. The word "cosmetics" Actually stems from its use in Ancient Rome. Cosmetics are used to Enhance appearance. The formulation which contains the herbs are proved by ayurveda.

A herbal lotion is a liquid preparation, applied externally on the skin to produce or enhance a beautification. Lotions are used for washing the skin and to remove the oily secretions. The function of a skin lotion is to opposed to skin against different environmental condition, weather and gives soothing effect to the skin.

Lotions are Liquid preparations meant for external application without friction. They are applied directly to skin with the help of some absorbent material, such as, cotton wool or gauze soaked in it. Lotions may be used for local action as cooling, soothing or protective purposes.

The formulation which contains the herbs are proved by ayurveda. Herbal remedies in Rich the bodies with nutrients with other useful minerals. An herbal lotion that can give effective protection to Skin and free from any toxicity'.

The function of a skin lotion is to opposed to skin against different environmental condition, weather And gives soothing effect to the skin. Herbal Cosmetics, here referred as Products, are formulated, using various Permissible cosmetic ingredients to form the base in which one or more herbal ingredients are used to provide.

The herbal cosmetics are those when Natural herbs and their products used for their aromatic value in cosmetic preparation among consumers for herbal Products triggered the demand for natural products and natural extracts in cosmetics preparations.

Lotions May be used for local action as cooling, soothing or protective purposes.

Body lotion has a higher water content than Body butter. It is an oil-in-water emulsion, meaning manufacturers distribute oil into the water. This method makes Body lotions lighter than body butter, which makes them easier to apply.

Body lotions can vary slightly depending on What manufacturers have designed them for. Some types specifically target the face, while others are for more Widespread use on the body.

1.1. Advantages of herbal lotion:-

1. Easy to manufacture.
2. Easy to available and found in large of variety of plants.



3. They do not have any negative side effects.
4. Cheap in cost.
5. Also can apply to broken skin
6. Self-medication is possible

1.2.Lotion Benefits :-

1. Help yourself relax.
2. Soften the roughest parts of your body.
3. Protect the skin.
4. Purifies the skin.
5. Improve skin elasticity.
6. Rehydrates dried skin.
7. Make your skin glow.
8. Rough spots on the skin.

1.3.Ideal characteristic of Herbal Lotion:-

1. give cooling effect on application.
2. They should be free from particles.
3. produce emollient effect.
4. remove the oily secretion upon application.
5. spread uniformly on the skin surface.
6. not cause any skin toxicity.
7. They should be compatible with skin pH.

LITERATURE OF REVIEW :-

1. Mandawgade and Vandana, (2008) :

A review of the literature shows that, in addition to VCO, other significant plant-based bioactive chemicals may also be used in topical formulations for protection and healing due to their antibacterial and anti-Inflammatory properties. Combining these components from plants high in tocopherols, phytosterols, and Triterpenes considerably lessens skin roughness and wrinkles.

2. Dr.S .Valarmathi , Dr.M. kumar. S.et.al.,(2018) :Alovera is an important key ingredient in wide range of buty and skin care product . Improve the effectiveness of sunscreen product relives itching and swelling of The irritated skin the main aim of the research work to prepare the herbal lotion by using alovera.

3. Grundmann oliver B pharm et.al.,(2014) :

Alovera commonly known as barbadose aloe is an herbal medicine with a long tradition of use by variety of culture has formulated and evaluated alovera gel that is Widely use for the treatment of minor burns especially sun burbs and the thick sap of the leaves that turns yellow brown and has a strong laxative effect that caution its use .

4. Surjushe A,Vasani R et.al.,(2008):

Alovera is a natural product that is now a day frequently used in the field of cosmetology .indication for its trials are needed to determine its real efficacy. The alovera plant its properties ,mechanism of action and clinical uses are briefly reviewed in this article.

5. Mahor and Ali, 2016, Pathak and Sharma, 2017) :

Aloe vera gel has historically been used to treat a variety of conditions, including immunological system Deficits, constipation, ulcers, coughs, diabetes, arthritis, and urinary problems, both topically as a skin tonic And orally (Pathak



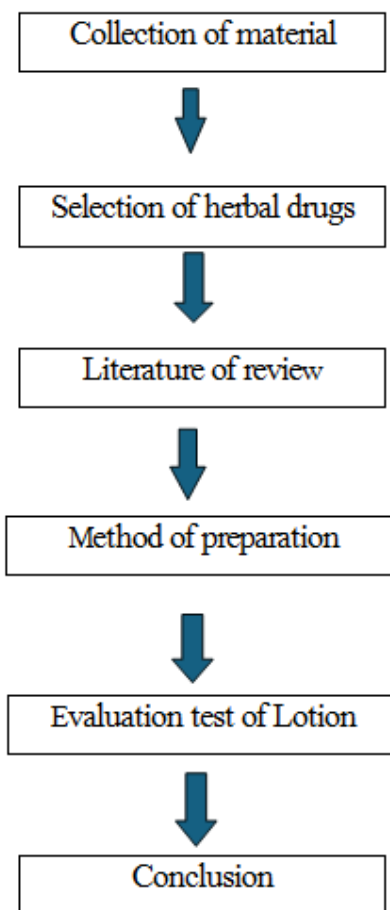
and Sharma, 2017). [26]. In addition to steroids, proteins, lignin, polysaccharides, vitamins, Minerals, enzymes, amino acids, anthraquinones, and saponins with emollient, anti-inflammatory, Antioxidant, antiseptic, and anticancer properties, aloe vera leaf gel contains more than 200 distinct Physiologically active compounds.

Aim :- Formulation And Evaluation of Aloevera Herbal Lotion

Objective :-

1. To prepare good quality product.
2. To formulate lotion that is safe for all types of skin.
3. To formulate lotion that locks natural moisture and provides essential hydration to skin that gives healthy and soft skin.
4. To evaluate herbal lotion.
5. To effective the protection to Skin & free from any toxicity.
6. To keep your skin soft, smooth and hydrated.
7. To study antimicrobial activity of gift aloe vera.

Plane of work:-



Equipment :-

1. pH strips
2. Glass rod
3. Sterilized bottles
4. Measuring cylinder
5. Breaker

Ingredients used in Herbal lotion :-

Sr. No.	Ingredients
1.	Aloe vera gel
2.	Coconut milk
3.	Honey
4.	Almond oil
5.	Glycerine
6.	Rose water
7.	Vitamin E Capsules
8.	Bees wax
9.	Lavender oil

FORMULATION INGREDIENTS PROFILE :-

6.1. Aloe vera gel :-

- Synonym –Aloe, Musabbar, Kumari.
- Biological source –Dried juice of leaves of aloe vera, Aloe barbadensis miller, Aloe ferox.
- Family - Liliaceae



Fig. 1: Aloe vera gel

• Uses -

- 1) Is used as a moisturizer, to reduce pimples and acne and also used for treatment of Burn Wounds.
- 2) It is also used to Pigmentation, redness and itching of the skin.
- 3) It has anti-aging properties.
- 4) It also Helps moisturizing and soothing effects.
- 5) This medication is use as a moisturizer to treat or prevent dry, rough, scaly, itchy skin and minor skin Irritation



Coconut milk :-

- Synonym:- Copra milk
- Biological source:-Cocos nucifera
- Family:- Palmae



Fig.2: Coconut milk

• Uses -

1. Coconut milk has a high fat content which can have an excellent moisturizing effect when applied topically dry skin.
2. It's easily absorbed, smoothest skin cells, and the fats help maintain your skin's elasticity.
3. It is ideal moisturizer for the body which makes the skin smooth and textured.
4. Coconut milk is moisturizing agent.
5. It promotes wound healing and reduce inflammation.
6. It contains antibacterial and antifungal properties.

6.3.Honey :-

- Synonym - Madhu, Honey purified,
- Biological source –Honey is sugar secretion deposited in honey comb by the bees Apis mellifera, and other species of Apis.
- Family – Apidae



Fig.3: Honey

• Uses -

- 1) Natural antiseptic



- 2) Anti-inflammatory that helps to heal breakouts of acne and prevent extra infections.
- 3) Reduces the redness and swelling of acne.
- 4) Honey moisturizes the top layers of skin and helps to reduce wrinkles and fine lines.
- 5) It use as wound-healing agent.
- 6) prevent bacterial infection it can be so moisturizing.

Almond oil :-

- Synonym –Badam tail, Bitter Almond oil.
- Biological source –It is fixed oil obtained by expression of seeds of *Prunus amygdalus*
- Family – Rosaceae



Fig.4: Almond oil

• Uses -

- 1) Almond oil is help moisturize and smooth skin.
- 2) safe for sensitive skin because it is non-irritating and light weight.
- 3) It may have antibacterial activity
- 4) It may have anti-fungal properties
- 5) Helps to achieve soft and smooth skin.
- 6) Reduce the dry and rough skin, making it clear.

Glycerine :-

- Synonym:-Glycerol, Glycerine, 1,2,3-propanetriol
- Biological source:-It is obtained from animal and plant source.
- Family:- Alcoholic



Fig.5: Glycerine



• Uses -

- 1) Glycerin uses as moisturizer.
- 2) It soothes dry and irritated skin.
- 3) It treated acne and scars.
- 4) It helps to reduce wrinkles.
- 5) It is used as cleanser.
- 6) It improves skin permeability.

Rose water :-

- Synonym:-Rose oil, Oleum rose,
- Biological source:-Rose consist of fresh flowerpetals of plantGenus rosa, rosa centifolia.
- Family:- Rosaceae



Fig.6: Rose water

• Uses –

- 1) Rose water can clam your skin.
- 2) It has anti aging property.
- 3) It helpin reducing itchiness and redness.
- 4) It helps to smoothen skin irritation.
- 5) It hydrates and moisturize the skin.
- 6) It helps maintain the skin's pH balance.
- 7) It improves skin texture and softness.

Bees Wax :-

- Synonym :-Paraffin wax, Cranauba.
- Biological source:-It is a product made from the honeycomb of the honeybee and other bees.
- Family:-Apidae



Fig.7: Beed wax



• Uses :-

1. Bees wax can create a protective layer on the skin.
2. It also helps in moisturizing the skin.
3. It is also used in lip-balm, lip gloss, etc.

Lavender oil

- Synonym:- Common lavender
- Biological source:- It is a volatile oil obtained by steam distillation of fresh flowering tops of *Lavandula officinalis* Chaix.
- Family:- Labiatae



Fig.8. Lavender oil

• Uses :-

- 1) It is used as Aromatic.
- 2) It is used as Carminative.
- 3) It is used as Flavouring agent in perfumery.
- 4) It is used as Cosmetics.

METHOD OF PREPARATION :-

□ PREPARATION OF ALOVERA GEL :-

1. Collect the raw material.
2. Wash leaf and remove base and tip of the leaf.
3. Leaf is cut into sections.
4. Extraction of mucilage part of the leaves into a mixing jar.
5. Heat it and add agar-agar powder.
6. Grinding/homogenisation of unpasteurised juice.
7. Add vitamin E and mix it well.
8. Package the produced gel and store it.





Fig.10.Alovera gel

PROCEDURE OF HERBAL LOTION:-

1. Weigh all the ingredients as per formulation.
2. Alovera gel (10 ml) was taken in separate clean beaker then stirred it till it gets converted into little bit creamy form.
3. Then honey (5ml) and bees wax was added and mixed it.
4. Then another beaker was taken and in that Almond oil (2ml), vitaminE Oil Lavender oil (2-4 drops) and Glycerin(3ml) was added.
5. Then this oils solution was slowly added in the first one beaker and mixed it thoroughly.
6. After mixing all ingredients rose water (2ml) and coconut milk (5ml) was added as per consistency.



Fig.11.Herbal lotion

EVALUATION TEST FOR HERBAL LOTION:-

1. Organoleptic character
2. Homogeneity
3. PH determination



4. Stability test
5. Irritancy test
6. Washability

1. Organoleptic character :-

- Colour – Yellowish
- Odour -Pleasant
- Texture –Smooth
- State – Semi-solid

2. Homogeneity :-

The formulation were tested for homogeneity by visual appearance and by touch.

3. PH determination :-

0.5g cream was taken and dispersed in 50 ml distilled water and then PH was measured by using digital PH meter.

4. Stability Test :-

To check the microbial growth, the formulation was placed in the center of the petri dish, and then the plates were incubated at 37°C for 72 h.

5.Irritancy test :-

Mark the area (2 cm 2) on the left – hand dorsal surface. Then the cream was applied to that area and the time was noted. Then it is checked for irritancy, erthema, and edema any for an interval up to 24 h and reported.

6.Washability :-

A portion of lotion was applied over the skin of hand and allowed to flow under the force of flowing tap water for 10 minutes. The time when the lotion completely removed was noted.

RESULT

The herbal lotion was prepared and subjected to evaluation of various parameters. The herbal formulation Was yellowish in colour. The pH was throughout the study is between 5-6 which lies in the normal pH range of The skin and the lotion did not produce any irritation upon application to the skin. The preparation was stable Under normal storage conditions. These results indicated that the herbal lotion had no adverse effects on the topical Area. It is showed this herbal preparation is useful in inflammation, and anti-aging.

EVALUATION TABLE:-

Sr.no.	Test	Observation
1.	Appearance	Lotion Type
2.	Colour	Yellowish
3.	Odour	Pleasant
4.	pH	5
5.	Irritancy test	Non-irritable & non allergic on the skin
6.	Washability Test	Easily washable from the skin by using water
7.	Stability Test	No microbial growth is observed After 15 days



II. CONCLUSION

In this study, a formulation of herbal lotion was formed and evaluated in terms of their organoleptic Properties [Appearance, Color and odor] and physiological parameters pH, Spreadability, easy of removal and irritancy test.

The present work focus on the herbal extracts Provide nutrients necessary for the healthy skin. There are numerous herbs available naturally having different uses in cosmetic preparations for skincare as antioxidants. The present study revealed that herbal cosmetic are very safe and does not produce any toxic and adverse reactions compare to marketed cosmetics products. Herbal Lotion we will avoid skin problems.

The herbal lotion of crude drugs with the unique properties and prepared by simple W/O methods and less equipment are required. In which the research of study was concluded that poly formulation containing F2 formulation shows better results than other herbal formulation and represent the future scope of herbal formulation. In which herbal lotion was successfully prepared, characterized and evaluated for various aspects.

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