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Research Article

FORMULATION, DEVELOPMENT AND EVALUATION OF HERBAL GARLIC LOTION FOR ACNE

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ABSTRACT

Now a day's synthetic chemicals are produces many harmful effects like cause irritation on skin, dryness, sometimes produce pimples etc. so that's why we selected herbal products for making herbal garlic lotion for the treatment of acne by using W/O emulsion method due to reducing side effects, cheap, better therapeutic effect, ease of available etc. present studied that all parameters passed and there is no cause irritation, redness, itches, etc. after administration or applied on skin its proved by skin irritation test.

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INTRODUCTION:

Cosmetics

There are plenty of commercial acne treatments available, but they're often expensive and ineffective, and they come with unwanted side effects. Our aim and objective is to formulation, development and evaluation of lotion which can cure Vulgaris Acne. The product should be cheaper and effective. For formulation of Garlic lotion, preformulation studies have to be done. Lotions are applied to external skin use. While lotion may be used as a medicine delivery system, many lotions, especially face, hand lotions and body lotions are meant instead to simply smooth, moisturize and soften the skin. These may be used in anti-aging lotions, which can also be classified as a cosmetic in many cases, and may contain fragrances. Lotions can be used for the treatment of skin diseases such as: Antibiotics, Antiseptics, Antifungals, Corticosteroids, Anti-acne agents, Soothing, smoothing, Moisturizing or protective agents^{1,2}.

MATERIALS AND METHODS:

Materials: Multani Mitti, Garlic paste, Honey, Cucumber, Turmeric, Aloe vera gel, Neem, sandalwood powder, lemon, rose water.

Method: W/O emulsion method.

Pre Formulation: Preformulation study of powder extract.

Evaluation of Lotion The cream was evaluated for appearance, irritation test, viscosity, pH, total fatty

substance, total residue, thermal stability and microbiological tests. The results are shown in Accelerated stability study was also performed to check the changes during storage and is likely to influence quality, safety, and efficacy^{3,4}.

Table 1: Parameters of Powder Extract

S. No.	Parameters	Result
1.	Particle size	20-25um
2.	Angle of repose	32°
3.	Bulk density	0.8gm/cc
4.	Tapped density	0.9gm/cc
5.	Carr's index	12
6.	Hausner ratio	1.13
7.	pH	7.2

Formulation of herbal garlic lotion:

Table 2: Formulation of herbal garlic lotion

S.No.	Ingredient	F1
1.	Multani Mitti	0.5
2.	Garlic paste	0.80
3.	Honey	1.0
4.	Cucumber	0.2
5.	Turmeric	0.2
6.	Aloe vera gel	1.0
7.	Neem powder/oil	0.5
8.	Sandalwood powder	0.5
9.	Lemon	0.3mg
10.	Fragrance (Rose Water)	q.s

Appearance

The appearance of the lotion was judged by its color, texture, roughness and its odour.

Irritation test

Apply this lotion for face mask on 10 minute. After a short time in irritation accuse does not but after which we do not have a irritation and 10 minute After wash on the face for lukewarm water.

Viscosity

Viscosity of formulated lotion was carried out with Brookfield Viscometer model LV-DV-II+, Helipath spindle type S-96.

pH

The pH meter was calibrated using standard buffer solution. About 5 ± 0.01 g of the lotion was weighed in a 100 ml beaker and dissolved in 45.0 ml of distilled water and dispersed the lotion in it. pH of lotion was measured at 27 using the pH meter.

Microbiological tests

Lotion was subjected for microbiological tests total viable count and gram negative pathogens like *Salmonella*, *Pseudomonas aeruginosa*, *Escherchia coli*⁵.

RESULTS AND DISCUSSION:

Lotion was evaluated following parameters like visual appearance, irritancy test, viscosity, pH, total fatty

substances, total residue, thermal stability and microbiological analysis and preformulation studied was also performed after that observed there is giving better and excellent properties of powder flow. Appearance of lotion was good having smooth texture and easily spreadable property. Irritancy test was performed and there was no sign of redness and itching and safe for topical application. Viscosity of lotion was carried out using Brookfield viscometer and it was found in range between 19402cp - 19443cp. pH of lotion was found to be 7.28 which is nearer to the required pH of skin. Total fatty substances and total residue was found to be 23.01 % and 40.14 % respectively. Lotion was thermally stable at $45^{\circ}\text{C} \pm 1^{\circ}\text{C}$ for 48 hours when evaluated for the thermal stability. There was no phase separation.

CONCLUSION:

Herbal lotion is unique obtained from natural plants and some plant extract. Its purpose is to design giving soothing effects and relieve from redness, pimples, inflammations and skin irritations and it provides better anti-inflammatory, anti-bacterial, anti-septic and insect repellent activities. All the therapeutic nutrients give soothing qualities from plant oils such as Aloe vera and Neem with the healing benefits inherent in oil. A complete acne treatment system is much more useful in treating acne from garlic. Mixture of all these ingredients made garlic lotion for best effect on the face & related skin problems.

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