IJNRD.ORG ISSN : 2456-4184
INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG
An International Open Access, Peer-reviewed, Refereed Journal

PREPARATION OF HERBAL LOTION FROM BALE LEAVES METHANOLIC EXTRACT

Abdul Qadir[1*] and Manish Singh[2]

[1*,2] Research Scholar, Department of Pharmacy, School of Health Science, Sushant University, Sec-55, Gurugram 122003, Haryana, India

Abstract

The herbal cosmetics are the products used for the not even beautifying the skin but also have health benefits due to which it triggered the demand for natural products and natural extracts in cosmetics preparations among consumers. The objective of this research is to formulate herbal lotion from Bale leaves extract and its evaluation. Herbal lotion formulations studied by many researchers and this information can be used by many researchers for novel herbal cosmetic formulations with new herbs.

Key words: Herbal cosmetics, Herbal lotion, Bale leaves extract, beautifying

Introduction

Herbal lotions are formulated using natural ingredients such as plant extracts, essential oils, and other botanicals. The principle behind herbal lotions is to provide therapeutic benefits to the skin by delivering the healing properties of these natural ingredients. Herbs and plants have been used for centuries for their medicinal properties, and many of these properties can be beneficial for skin health. For example, lavender and chamomile are known for their calming properties and can help soothe irritated skin [1-4]. Aloe vera is known for its moisturizing properties and can help hydrate dry skin. Herbal lotions are typically made by infusing the natural ingredients in a carrier oil or water, which allows the beneficial compounds to be extracted from the plants. The resulting lotion can then be applied topically to the skin, where it can provide a range of benefits depending on the specific ingredients used. Overall, the principle of herbal lotion is to provide a natural and gentle alternative to traditional skincare products, using the healing properties of plants to support healthy skin. Bael, Aegle marmelos (L.) Correa, is one of the medicinally treasured tree species, also known as begal-quince, golden apple, and stone apple in India and a sacred tree in places where Hindus lives [5-8]. Bael trees are usually planted near temples dedicated to Lord Shiva and one of the most appreciated plants used in Ayurveda from ancient time.

According to the literature bael is used as a medicinal and food item since 5000 B.C. and it is mention in famous Sanskrit epicpoem Ramayana. Bael fruits and leaves are used to treat dysentery, dyspepsia, rheumatism etc. disease. Apart from it also used in industrial food processing and acting as an excellent source for extracting pharmaceuticals and many other economically important herbal compounds. This study is formulated to prepare and evaluated the lotion first time prepared from bale extract to explore the use of Bale methanolic leaves extract.

Material and Methods

Bale methanolic leaves extract lotion was prepared by the use of Glycerin (3ml), Oil (5ml), Dill Water (500ml), Perfume (Almond oil) 2 drops for odour, Bale leaves methanolic extract(200mg), Sodium benzoate (2gm), 2 ml Cetyl Alcohol and Glyceryl Monosterate (3ml).

By the use of formulation components used were listed above in various composition, we prepared the Oil in water emulsion with 200 mg extract. The emulsifier (glyceryl monostearate) and other oil soluble components (sunflower oil, mineral oil, petroleum jelly, cetyl alcohol) were dissolved in oil phase (part A) and heated up to 80°C. Extract and water soluble components (glycerin, methyl paraben, propyl paraben) were dissolved in (part B) and heated up to 80°C. After heating, the aqueous phase was added in portions to the oil phase with constant stirring until cooling of emulsifier took place. Perfume was added when the temperature dropped to 45°C +50°C. [9-12]

Fig 1: Herbal Lotion

Evaluation of the herbal lotion

Determination of pH

0.01g of the lotion was weighed accurately in a 100ml beaker and add 45 ml of water. The pH of the suspension was determined at 27°C using the pH meter. (PH of Formulated herbal Lotion should be between 4.5 to 7 Suitable for the skin).

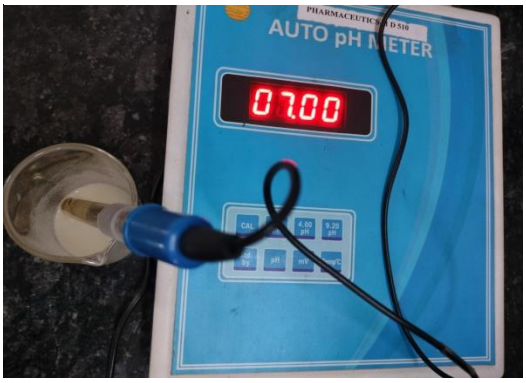

Fig 2: pH of Herbal

Determine its Anti-Microbial Properties

To check the antimicrobial property of a substance using nutrient agar plates, the following steps can be followed:

I. Prepare a bacterial culture: Start by preparing a bacterial culture of the organism you want to test. This can be done by swabbing a bacterial colony from a pure culture onto a sterile nutrient agar plate and incubating it for 24 hours at an appropriate temperature.
II. Prepare the test substance: The substance to be tested for antimicrobial activity can be extracted from Aegle marmelos leaves using a suitable extraction method. Once extracted, the substance can be dissolved in a suitable solvent to prepare the test solution.
III. Inoculate the test substance: Sterilize a paper disc and place it on the nutrient agar plate previously inoculated with bacteria. Apply a small amount of the test solution onto the disc and allow it to soak in.
IV. Incubate the plates: Incubate the plates at the appropriate temperature for 24-48 hours.

Skin Irritation Test:

The ointment was placed on patches and covered with gauze for 4 hrs, skin was observed for any signs of redness, inflammation, and weeping of scabs

Result

The PH of Formulated herbal Lotion was found out to be 7.00, which is compatible to skin, clear Zone of inhibition was observed which indicated it possess antimicrobial property and skin irritation test was also performed which showed it is safe for use.

Conclusion

In conclusion, the leaves of aegle marmelos possess several beneficial phytochemicals such as alkaloids, flavonoids, terpenoids, and phenolic compounds that have been shown to have various pharmacological activities including antimicrobial, antioxidant, and anti-inflammatory properties. The hot and soxhlet extraction methods were both effective in extracting these phytochemicals from the leaves. The antimicrobial activity of the leaf extract was tested using the nutrient agar plate method, and it was found to have significant inhibitory effects against a range of bacterial strains. These findings suggest that aegle marmelos leaves have potential for use in the development of natural and safe antimicrobial agents for various applications such as in the formulation of creams and lotions. Further studies are needed to isolate and identify the active compounds responsible for the observed activities and to determine their mechanisms of action. Additionally, clinical studies are necessary to establish the safety and efficacy of these extracts for human use.

Acknowledgment

The authors would like to thank Principal Prof (Dr.) Jyoti Sinha and Associate Professor Dr. Vinod Kumar ; Dept. of Pharmacy, School of Health Sciences, Sushant University, Gurugram, India for providing necessary research facilities.

Conflict of interest

We, authors declare that we have No Conflict of interest

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