



HERBAL SOAP FORMULATION CONTAINING FICUS BENGHALENSIS AS ANANTIBACTERIAL ACTIVITY

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ABSTRACT

Herbal soap containing medicinal plant banyan tree ,aloevera, amla, lemon grass, and menthe as natural plant ingredients was prepared and this provide antifungal, antioxidant, anti-inflammatory, anti ageing activity towards the skin. This is prepared by using a glycerin base soap in which all plant extract was incorporated. The soap was evaluated and all parameters was determined. ph of soap was basic in nature and appearance was good with effective color and odor.

Keywords: Herbal soap, banyan tree, aloevera, antibacterial, lemon grass

INTRODUCTION

Herbal soap is preparation for medicine and drugs, Banyan tree leave have healing and anti-microbial properties¹. Banyan leaves have a soothing effect on the skin, which a mainly uses part of such as leaves, stem, roots and fruits to treatment of allergies and acne or pimples problems or achieve good and healthy skin². This Preparation possess healing and antimicrobial anti acne property are administrated topically and available to apply in different forms for examples like, creams ,lotions, gel, solvent extract and ointment³. The varieties of cream and soap properties have used to treat many disorders. Skin infections are caused by a wide variety of germs, and symptoms can vary from mild to serious⁴. Bacterial skin infection viral skin infection⁵. Ethno medicine ,juice ,extraction from leaves and different part of plant is apply for examples Antifungal ,antiviral, anti

ageing, and also include many skin diseases like eczema, ringworm⁶. In this Preparation of soapy plant is able soothing the skin epidermis and enhance the penetration & cleaning pimples also acne and promote the glowing skin and healing resolution in very short time⁷.

Amla is an effective face cleanser, it remove all dirt, grime, dead skin cells. Amla our traditional wonder food, it have rich source of vitamin Hence it is perfect substitute for soap⁸. It is also beneficial for oily and sensitive skin. A very good combination of Amla and Mentha gives very soothing and gentle effect show on the skin. It keeps skin nourishing and oil free. Amla prevents the skin from dryness and age lines. Amla prevents the skin from darkness and treat eczema and psoriasis⁸.

Mentha is a quit very effective and keep hydrate and a strong antibacterial properties mentha leaves have excellent cleanser, astringent, toner, and moisturizer. Mentha rich source of vitamin A and it eliminates acne scars.



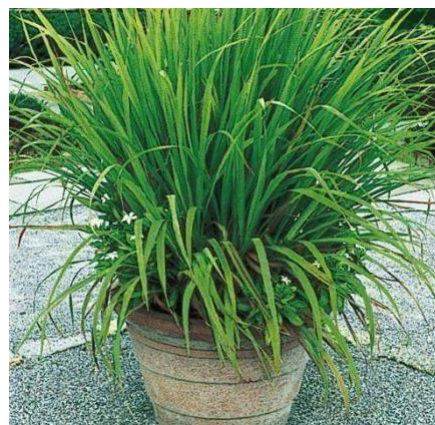
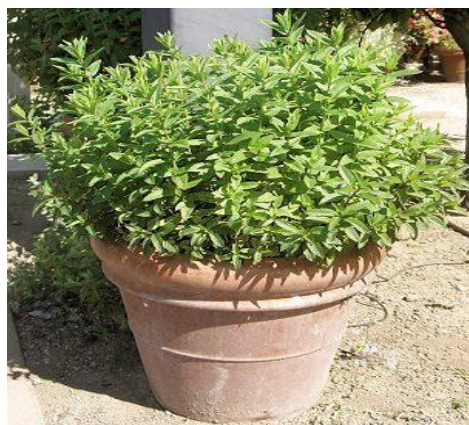
Biological Name: ficus benghalensis

Family: Moraceae
Common Name: Banyan tree



Biological Name: phyllanthus emblica

Family: Phyllanthaceae
Common Name: Amla



Biological name:- Mentha piperita Linn.

Biological name:- Cymbopogon flexuosus

Common Name: Mentha

Common Name: Lemongrass

Figures of Plants

Material and Method:

Material: Plants, stearic acid, ethanol, glycerin, lemon oil, menthe etc.

Collection of Plants: The leaves of ficus benghalensis and aloevera were collected. Phyllanthus emblica fruit and cymbopogon was also collected from plants and dried at room temperature for the studies.

Extraction of Plants: Extract of ficus benghalensis, phyllanthus emlica and cymbopogon powder was collected by using ethanol in soxhlet apparatus and filtered.

Formulation of Herbal Soap: Herbal soap was prepared by using extract of fiscus benghalensis, phyllanthus emlica and cymbopogon incorporated into a basic glycerin soap having soft paraffin. First of all glycerin basic soap was melted and to it 1gm stearic acid and 0.70gm soft paraffin, 5ml ethanol were added. The extract of plant was incorporated into melted solution with continuous agitation for 30 min until molten mixture become homogeneous mixture poured in a mould and allowed to solidify.

FORMULATION:

S.NO.	INGREDIENTS	QUANTITY	USE
1.	Stearic Acid	1gm	Hardening
2.	Soft Paraffin	0.70ml	Hardening
3.	Ethanol	2ml	Solvent
4.	Glycerin	2ml	Moisturizer
5.	Ficus benghalensis	4gm	Antibacterial and antiachne
6.	Phyllanthus emblica	3gm	Antioxidant
7.	Cymbopogon	2gm	Germicidal
8.	Aloe vera	1gm	Cooling effect
9.	Mentha	0.5gm	Cleanser
10.	Lemon oil	q.s	Perfume

EVALUATION:

Organoleptic properties: Colour: Green Odour: Lemo

Appearance: Good

1) Physical Evaluation:

a) pH: pH was determined with the help of pH paper and found to be basic in nature.

b) Foam retention: one percent soap solution was prepared. 25ml was taken into a graduated measuring cylinder. This cylinder was shaken 10 times. The volume of foam at 1min interval for 4 min was recorded and found to be 6min.

c) Foam height: foam height was found to be 9 cm.

d) Antimicrobial test: The study was conducted on antimicrobial activity of banyan tree ficus benghalensis.

References:

1. Kareru, P. G., Keriko, J. M., Kenji, G. M., Thiong'o, G. T., Gachanja, A. N., & Mukiira, H. N. (2010). Antimicrobial activities of skincare preparations from plant extracts. *African Journal of Traditional, Complementary and Alternative Medicines*, 7(3).
2. Millogo-Kone, Guissou I P, Nacoulma O, Traore A S. Study of the antibacterial activity of the stem bark and leaf extracts of *Parkia biglobosa* (Jacq.) Benth. On *Staphylococcus aureus*. *Afri J*
3. Bandyopadhyay, U., Biswas, K., Sengupta, A., Moitra, P., Dutta, P., Sarkar, D., ... & Banerjee, R. K. (2004). Clinical studies on the effect of Neem (*Azadirachta indica*) bark extract on gastric secretion and gastroduodenal ulcer. *Life sciences*, 75(24), 2867-2878.
4. Sharma, J., Gairola, S., Sharma, Y. P., & Gaur, R. D. (2014). Ethnomedicinal plants used to treat skin diseases by Tharu community of district Udham Singh Nagar, Uttarakhand, India. *Journal of ethnopharmacology*, 158, 140- 206.
5. Srivasuki KP, Nutritional and health care benefits of Amla, *Journal of Pharmacognosy*, 3(2), 2012, 141-51
6. *Phyllanthus emblica*, *Natural Product Research*, 21(9), 2007, 775- 81.
7. Shweta K, Sunny S, A short description on pharmacogenetic properties of *Emblica officinalis*, *Spatula DD*, 2(3), 2012, 187-193.
8. Lee, H. J., Jeong, H. S., Kim, D. J., Noh, Y. H., Yuk, D. Y., and Hong, J. T. Inhibitory effect of citral on NO production by suppression of iNOS expression and NF-kappa B activation in RAW264.7 cells. *Arch Pharm.Res* 2008;31(3):342-349. View abstract.