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Original Article

An Overview of Formulation and evaluation of herbal soap

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ABSTRACT

The Discovery and Art of soap-making up to 1660, Saop in the senes of product accomplished by the action of a base on fats and oils, has played essential part in the history civilization, but its discovery was quite accidental and its usefulness but slowly appreciated. Herbal Neem soap is common cleansing agent well know to everyone. Many authors define soap in different ways. It is regarded as any cleaning agent, manufactured in granules, bars, flaks or liquid form obtain form by reacting salt of sodium or potassium of various fatty acid that are of natural origin (salt of non-volatile fatty acid).Herbal Neem (Azadirachtalndica) plant has inspired all over world prominance owing to its broad range of medicinal properties, Neem leaves and its constituents have been establish to show anti-inflammatory, antihyperglycemic, antiulcer, antimalarial, antifungal,antibacterial, antimutagenic and anticarcinogenic properties. The aim of our study was to develop the herbal soap by using melt and pour method. Soap was made by Neem powder, Tulsi, Aloevera, Turmeric powder, Vit-E, Glyserine base, Rose water, Lavender essential oil. Herbal soap has been used traditionally for treating several epidermal dysfunction, such as psoriasis and acne helps to boost immune responce in tissue of effected skin area. The results imply that herbal soap is suitable for human skin and can be a therapeutic alternative to skin problems.

Keywords: Neem, Bodycleanser, Antifungal, Herbal Soap, Anti-Microbial

INTRODUCTION

What Is Soap?

Soap is a cleaning agent made of a combination of fats, a base and water.It comes in different varieties such as bars, liquid, and powders (e.g., detergents). Other ingredients can be added to soap to give it different qualities, such as scent or texture.

History of Soap

Soap has been available for along time. A soap recipe carved into a tablet from Ancient Babylon shows that soap has been available since 2200 BC. There is also evidence that the Egyptians used a soap-like substance made of animal and vegetable fats mixed with alkaline salts. Ancient Rome used pomade for their hair that was similar to soap, and Ancient China also has evidence of the use of a soap-like product. Islamic documents from the 12th century describe the process of making soap and by the 13th century, soap making had become industrialized in the Islamic world, with production centers in Nablus, Fes, Damascus and Aleppo Today soap is widely used. We now understand its role in proper hygiene. Handwashing with soap significantly reduces the number of pathogens on hands compared to washing with water alone. Soap helps to break down the grease and dirt that carry the largest concentration of pathogens. In the late 18th century, industrially manufactured soap was paired with campaigns in Europe and the United States that taught the relationship between soap and health. This knowledge and promotion, soap has become a household item in many countries.

Product Applications

Herbal soaps remove dandruff from the hair they prevent prickly heat They have antiseptic properties They act as body deodorizers preventing any foul odor coming from the body. They beautify the skin they do not bleach the color of the hair. They are not corrosive to the skin and do not remove the essential oils from the skin Soaps have been registering steady growth in demand in the country, in tune with the industrial and economic growth. The Indian per capita consumption of soaps and detergents is still very low, compared to the developed countries. Obviously, this implies that

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there is substantial scope for increase in demand for the product in the country. Herbal soap has generated considerable interest and enthusiasm amongst the consumers in recent times, due to eco-friendly nature of the product. There is good scope for setting up herbal soap projects in the country. While there is no particular entry barrier from the point of view of technology, adequate market thrust is necessary to competitively sell the product in the market.

Introduction to Herbal Soap

Herbal soap preparation is a medicine or drugs it contains Antibacterial & antifungal agents which e mainly uses of part of plants such as like leaves, stem, roots &fruits to treatment for an injury or disease or to achieve good health. This preparation possess antimicrobial property are administered topically and available to apply in various forms like creams, lotion, gel, soap, solvent extract or ointment. the variety of creams & soap properties have been used to treat various skin disorders. Mostly skin infection are caused by fungi, staphylococcus aurous and streptococcus species. Ethno medically, juice& extract from leaves of the plants are topically applied as antimicrobial and anti-inflammatory agents in treatment of skin disease including eczemas, ringworm and pruritus. The succulent gel form is used to disorders of psoriasis. Crude preparation of soapy plant are able to soften the skin epidermis enhance greater penetration and cleaning acne and also promote healing and resolution in quickly in time.In this review article herbal soap containing neem, tulsi, shikekai and reetha as natural plant ingredients and this content gives or shows antibacterial antifungal & anti-inflammatory

MATERIAL AND METHODS.

Chemical

These include stearic acid, soft paraffin, ethanol, orange oil.

Chemicals	Source
Ethanol	Laboratory reagent
Stearic acid	Laboratory reagent
Soft paraffin	Laboratory reagent
Orange oil	Laboratory reagent

Collection Identification and Processing of Plant

The leaves of Azadiracta indica, Ocimum tenuiflorum, and seeds of Sapindus mukorossi and pods of Acacia concinna were collected from different matured plant. The leaves were dried in hot air oven, pulverized and stored in airtight bottles for the studies.

Extraction

The Azadirica indica, Ocimum tenuiflorum, Sapindus mukorossi and Acacia concinna powder was extracted with water by decoction process. 9 gm of above stated powder was taken in conical flask and extracted with water for four hours with occasional agitation. Then filtered.

Preparation of Herbal Soap

To obtain extract of Azadiracta indica, Ocimum tenuiflorum, Sapindus mukorossi and Acacia concinna powder was incorporated into a soap formulated with basic glycerin soap and which contain 1 gm stearic acid, 0.70gm soft paraffin. Weighed 1gm of stearic acid, 0.70gm soft paraffin, 5ml ethanol was taken. Glycerin basic soap was melted first and to it 1gm stearic acid, 0.70gm soft paraffin, 5ml ethanol were added. Extract was incorporated into melted solution with continuous agitation for 30 minutes until molten mixture became homogeneous. The semisolid mixture was poured into a mould and allowed to solidify.

Content of The Soap

1) Neem

Botanical name: Azadiractaindica
Color : Green
Part used : leaves
Description : Compound alternate, rachis 15-25cm long, 0.1cm thick, leaflet with
oblique, serrate, 7-8.5 cm long and 1-1.7 cm wide slightly yellowish green in color.

Constituents: Flavonoids, Alkaloids, Azadirone, Nimbin, Nimbidin, Terpenoids, Steroids, Margosicacid, Vanilic acid, Glycosides, B-sitosterol, Nimbectin, Kaempeerol, Quercursertin are present in Neem Leaf.

Fig (1). Neem leaves

2) Reetha

Biological name: Sapindus mukorossi
Part used: seed
Colour: Brown

Uses: Detergent, Surfactant
Description: The fruit is a small leathery skinned drop 1 to 2 cm in diameter, yellow ripening blackish, containing 1 to 3 seeds.

Fig (2). Reetha fruits

3) Tulsi

Biological name: Ocimum tenuiflorum
• Common name: Holy basil

• Chemical Constituents: eugenol, germacrene, terpenes
• Part used: Leaves
• Colour: Green

Fig (3). Tulsi leaves

4) Shikekai

Biological name: Acacia concinna
Common name: shikekai
Chemical constituents: spinasterone, acacia acid
Part typical used: fruits pods
Colour: brown
Uses: antidandruff detergent.

Fig (4). Shikekai pods

Formula for Preparation.

The formula shown in Table is best suited for the preparation of herbal soaps.

Formula [1]:

Sr. No.	Ingredients	Quantity (%)	Use
1	Stearic Acid	1 Gm	Hardening
2	Soft Paraffin	0.70	Hardening
3	Ethanol	5ml	Solvent
4	Neem Powder	4gm	Antibacterial
5	Reetha	3gm	Surfactant
6	Shikekai	2gm	Cleanser
7	Tulsi	1gm	Antiviral
8	Orange Oil	Q.S	Perfume

Fig (5). Sample prepared

The Herbal Soap Formulated Was Evaluated for The Following:

1. Organoleptic Evaluation: -

i. Colour: Brown
ii. Odor : orange
iii. Appearance: Good

2. Physical Evaluation: -

The herbal soap formulated was evaluated for the following properties:

A) pH:-

The pH was determined by using pH paper. The pH was found to be basic in nature

B) Foam Retention: -

25 ml of the one percent soap solution was taken into a 100 ml graduated measuring cylinder the cylinder was covered with hand and shaken 10 times. The volume of foam at 1 minute'sinterval for 4 minutes was recorded. It was found to be 5 minutes.

C) Antimicrobial Test: -

There was various study conducted on antimicrobial activity of neem and hence according to research paper by antimicrobial activity of Azadiricta indica leaf, bark and seed extract.

CONCLUSION: -

The plant Azadiricta indica, Ocimum tenuiflorum, Sapindus mukorossi and Acacia concinna were extracted using water and subjected to various evaluation test according to previous research the antimicrobial activity of Neem was studied. The prepared formulation when tested for different test gave good results. It does not give any irritancy to skin it was determined by using these soaps by few volunteer hence it is proved that soap does not give any irritancy to skin.

RESULT

- The soap was formulated by admixing the equal amount of the adequate all ingredient with neem
- The above plant extract contains neem which is antibacterial agent
- Neem extract added to shampoo serve as a preservative and anti-bacterial agent in soap.

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