

Review on Herbal Soap

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Abstract: *Skin infections related to bacteria are most commonly found in surrounding environment. In such cases the significant attention to provide curative actions and maintenance of proper health hygiene is required. Some of the natural extracts obtained from herbal plants possess antibacterial activity. The most frequent type of skin infections are caused by bacteria. requiring considerable focus for both treatment and upkeep of healthy skin among individuals. beauty care products are also commonly referred to as natural beauty care products. The Poly herbal soap is most used handwash preparation in this article formulate antibacterial paper soap with and evaluate their parameter and in-vivo antibacterial activity. However, aroma therapy is pleasant, eco-friendly and reduced number of side effects. The study indicates that the evaluated paper soap contain may be antimicrobial properties and this can contribute the curative and preventive actions for skin infections caused by bacteria if well balanced quantity of natural excipient and reagents to target particular contribute organisms and packaged with proper guidance for utilization and storage*

Keywords: herbal soap, Anti bacterial, Skin, Medicinal plants consumers

I. INTRODUCTION

Good health hygiene is crucial as the prevalence of diseases caused by microorganisms continues to rise. From times long ago Soap plays a crucial role in maintaining human health and hygiene over time. In the contemporary period, bath soap is readily accessible. The types of soap in the market are primarily solid soap and liquid soap. People's choice of soap is determined by multiple factors. One of the benefits is the convenience of transportation. Paper soap is a novel soap formula that is printed. In order to maintain necessary hygiene during our travels, it is crucial to have this essential item. keep soaps nearby. This is the location where poly herbal soaps, also known as travel soaps, are commonly found. At the time that When it touches water, it quickly becomes wet and generates foam like regular soap and gels.(1) known for its soothing, rejuvenating, and healing properties, making a popular choice for people with sensitive or dry skin. Currently, a significant number of cosmetic products are adulterated, and numerous other beauty preparations available in the market are of inferior quality, posing potential risks of side effects such as skin rashes, allergic reactions, and even the development of skin diseases(2)

The skin is frequently described as the biggest organ in the body. The skin of a typical adult has. Approximately 2cm in size. Accessibility and the ability to continue applying Keeping it in good condition for an extended period has led to its growing popularity as a method of delivery. for impacts at a local, regional, or systemic level(3)

While superficial skin fungal infection The mucous membrane readily reacts to the topical administration of antifungal substances. These can be found in different types such as gels, powders, shampoos, bars of soap. Medicated soap is regarded as one of them. to be the preferred and initial treatment for skin conditions. However, this specific soap with medication has numerous benefits. downsides such as financial impact, inefficiency, inaccurate dosing, and inadequate foam creation soap pollution.(4)

soap is created using a range of materials, including methyl paraben, propyl paraben, glycerine, carbomer, are all included in the ingredients. There are only a few paper soap available currently. safe preparations made from natural ingredients like neem oil leaves, and coconut oil are available. and suitable for applying to the skin.

Advantages of Polyherbal SOAP:

- **Natural Ingredients:** Herbal soaps are typically made from natural plant-based ingredients such as herbs, essential oils, and botanical extracts. These natural ingredients are often gentle on the skin and may help to soothe and nourish the skin without causing irritation or dryness.
- **Hypoallergenic:** Herbal soaps are often hypoallergenic, meaning they are less likely to cause allergic reactions compared to synthetic soaps that may contain harsh chemicals and artificial fragrances.
- **Environmentally Friendly:** Herbal soaps are generally considered to be more environmental friendly compared to synthetic soaps, as they are often biodegradable and do not contain harmful chemicals that may harm aquatic life or pollute the environment.
- **Aromatherapy Benefits:** Many herbal soaps contain essential oils, which can provide aromatherapy benefits. These essential oils may help to relax the mind, uplift the mood, and provide a sense of well being during the bathing process.

DISADVANTAGES OF HERBAL SOAP:

- **Variable Quality:** Herbal soaps are available in a wide range of brands and formulations, and the quality may vary. Some herbal soaps may contain lower quality ingredients or lack the desired efficacy, which can affect their performance.
- **Limited Lather:** Herbal soaps may not lather as much as synthetic soaps due to their natural ingredients. While lather is not necessarily an indicator of cleaning efficacy, some people may prefer a rich lather during their bathing routine.
- **Shorter Shelf Life:** Herbal soaps may have a shorter shelf life compared to synthetic soaps, as they do not typically contain preservatives. This means that they may spoil or become less effective over time, especially if not used within a certain period.
- **Higher Cost:** Herbal soaps may be more expensive compared to synthetic soaps, as they often contain higher-quality natural ingredients. This can make them less affordable for some consumers, especially those on a tight budget.
- **Limited Availability:** Depending on your location, herbal soaps may not be as widely available as synthetic soaps, which are mass-produced and readily available in most stores.(5)

Effect of COVID- 19 on the beauty market:

In February, China experienced a significant drop in sales, reaching up to an 80% decline when compared to the sales of 2019. However, in March, there was a notable recovery, with a year-on-year decline of 20%, indicating a rapid rebound despite the prevailing circumstances.

Many beauty product sales have shifted to online but the beauty stores are at stake. People's expenditure on online shopping platform has increased a lot all over the globe. To enhance consumer satisfaction, there is a need to expedite the product delivery process to the customer. The market structure has changed due to the pandemic. There is a rise of global middle class on online shopping platform(6)

Skin:

Skin is very important for all health care professionals to have basic information about the structure and function of human skin. Skin is also called cutaneous membrane. In adults the skin has a surface area ranging from 1.2 to 2.2m². Skin has two types, hair-bearing skin that covers much of the body and hairless skin as that of palms of hands and soles of feet.(7)

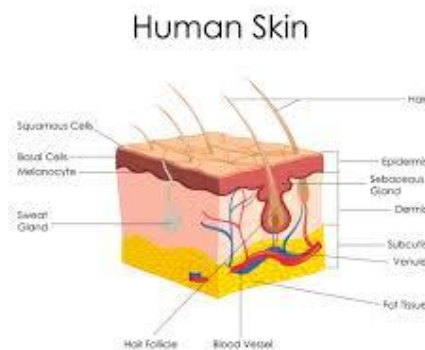


Fig: Skin Anatomy

Herbal paper soap :-

Paper soap is a sheet of soap that is thin. It's a type of surfactant with a negative charge. that is utilized in combination with water for cleansing and rinsing. Nowadays, everyone uses herbal products for cleaning. Herbal products have no side effects, which is why many people prefer them. We utilize Herbal items and create Herbal paper. bar of soap.(8)

Extraction:

An extraction was performed on the Azadiricta indica. water using decoction method. 9 grams of the mentioned powder were placed in a conical flask and then extracted with water for. four hours with intermittent stirring. Then went through a filtering process.(9)

PAPAYA LEAVES :



Fig 5: PAPAYA LEAVES

BIOLOGICAL NAME : Carica Papaya **BIOLOGICAL SOURCE :** This indigenous to Central America and the South of Mexico. It is commonly grown in the subtropical and tropical regions and cultivated in many countries worldwide.

FAMILY:- Caricaceae

PART USED : Leaves

USES : Antitanning

CHEMICAL CONSTITUENTS: alkaloids, glycosides, tannins, saponins, (10)

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TULSI :



Fig 6: TULSI

BIOLOGICAL NAME- Ocimumtenuiflorum.

BIOLOGICAL SOURCE : Tulsi consists of fresh and dried leaves of Ocimum sanctum Linn. **FAMILY:-**Lamiaceae

PART USED- leaves.

USE : Anti – viral

CHEMICAL CONSTITUENTS : oleanolic acid, rosmarinic acid, ursolic acid eugenol, linalool, carvacrol(11)

JASMINE OIL :



Fig 7: JASMINE OIL

Biological name:Jasminum

Biological source : the white flowers of the common jasmine plant, also known as Jasminumofficinale

Family:- olive family (Oleaceae)

Part used : Flowers

Uses : Perfume

Chemical constituents : alkaloids, coumarins, flavonoids, tannins, terpenoids, glycosides

STEARIC ACID



Fig 8 : STEARIC ACID

Iupac name : Octadecanoic acid
Other names : Stearic acid
Chemical formula : C₁₈H₃₆O₂ MOLECULAR
Weight : 284.484 g·mol⁻¹
Appearance : White solid
Odor : Pungent, oily
Use : Lubricants, softening and release agents
Ethanol :



Fig 9:ETHANOL

IUPAC NAME : Ethanol
Other names : absolute alcohol, alcohol, cologne spirit, drinking alcohol, ethylic alcohol
chemical formula : C₂H₆O
Molecular weight : 46.069 g·mol⁻¹
Appearance : Colourless liquid
Odor : wine-like, pungent **USE :** solvent(12)
Collection of plant : The Carica Papaya (Papaya leaves), Ocimumtenuiflorum (Tulsi) leaves from Saikrupa Institute Of Pharmacy Campus situated in village of Ghargaon, Ahmednagar.

MATERIAL:

Ingredients	Company name
Ethanol	Jiangsu Huaxi International Trade, Ltd
Tulsi	From nature
Jasmine oil	BO International, Wazirpur Industrial Area, New Delhi
Steric acid	Thermo fisher scientific india Ltd.

PROCEDURE:

For making poly herbal soap, place the necessary amount of soap base in a 500 ml beaker and heat it on a water bath without stirring while maintaining the desired temperature. The soap foundation will next be transformed into liquid form. Additionally, add all of the ingredients to the aforementioned mixture. To get the right combination without stirring, bring the ingredients to a boil over a water bath. Then the mixture was poured into the soap molds, which were then frozen for two to three hours. Remove the soap molds from the freezer after a couple of hours, and wait five minutes for the soap to develop.

EVALUATION PARAMETERS :

1. Physical parameters : Colour, shape, texture and state were examined with the naked eye.
2. Odour: The formulation's odour was assessed by rubbing some on the hand and smelling the scent.
3. pH: Using a pH strip and a digital pH meter, the produced soap's pH was measured by first dissolving 1 gramme in 10 ml of water and then comparing the results.
4. Foam Height: A sample of 0.5 grammes of soap was dissolved in 25 ml of distilled water. Then, pour it into a 100 ml measuring cylinder after adding water to make the volume 50 ml. 25 strokes were administered while standing until the aqueous volume reached 50 ml, at which point the height of the foam above the aqueous volume was measured.
5. Foam Retention: A 100 ml graduated measuring cylinder was filled with 25 ml of the 1% soap solution. Hands were placed over the cylinder and it was shaken ten times. For four minutes, the volume of foam was measured at one minute intervals.
6. Irritation: It involves applying soap to the skin for 10 minutes to irritate it. If there is no irritation, the product is regarded as non-irritating.
7. Wash Ability: We tested how easy it is to wash off soap from our hands using tap water. soap were easy to wash off.(13)

II. CONCLUSION

The plant *Carica Papaya*, *Ocimum tenuiflorum*, *Allium sativum* were extracted using ethanol and Subjected to various evaluation test according to previous research the antimicrobial activity of Neem was studied. It does not give any irritancy to skin it was determined By using these soap by few volunteer hence it is proved that soap does not give any irritancy to skin. Furthermore the Prepared soap were standardized by evaluating various physico chemical properties such as pH appearance odour in which The exhibit satisfactory effect.

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