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FORMULATION AND EVALUATION OF POLYHERBAL PAPER SOAP

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Abstract— Bacterial skin infections are most common amongst people, requiring significant attention for treatment and to maintain healthy skin. Some herbal plant extracts have antiseptics and activity. The paper soaps were most frequently used hand wash preparation in this article formulate poly herbal paper soap with combination of Almond and neem and evaluate their parameter. The study showed that the tested paper soaps possessed May be antimicrobial properties and they can contribute to the treatment and management of skin infections Caused by bacteria if well prepared with the appropriate plant materials to target specific causative Organisms and packaged with appropriate directions for use and storage. Hand washing with soap is important because it is Proven to clean hands from germs and bacteria and chemicals Which can cause personal harm or disease. This is especially Important for people who handle food or work in the medical Field, but it is also an important practice for the general public.

KEYWORDS: Antimicrobial activity, Skin infections, Herbal paper soaps, Medicinal plants consumers.

INTRODUCTION: - Cleanliness is a very important thing due to the increasing number of diseases caused by bacteria as and Germs. Soap is a substance used with water for washing and cleaning, made of a compound of natural oils or fats with sodium hydroxide or another strong alkali, and typically having perfume and coloring added. Even today, soap is not just used for cleaning to maintain the health of the skins; there are also some soaps That also serves as softening soap and whitening soap. In making soap often used various kinds of fats or Oils as raw material. For being used in soap manufacture the type of oil needs to be selected in accordance with the use of soap itself. Soap is an important surface-active agent and it is chemically the alkaline metal salt of long-chain fatty Acids. The most common used fat or oils for production of soap through saponification reactions are animal tallow, coconut oil, palm oil, kernel oil and

linseed oil. Similarly, potassium and sodium hydroxides Are widely used as the caustic alkaline for the purpose. Paper Soap is a sheet of soap that is dry, light weight, and can dissolve with a small amount of water Within seconds. It is a convenient, pocket-sized cleaning product that can be used on hands and face as Well. Today, people want hand-washing soap that is practical to carry anywhere. Paper soap itself is one solid Soap product innovation that printed or molded as thin as paper, paper soap will dissolve when exposed to Water; it turns out to be foam. Soap paper is generally used as a disposable hand-washing soap because of Its small size and thin so it easy to carry anywhere and suitable for use during at any outdoor activities. Today, soap is produced from fats and an alkali. The cold process method is the most popular soap making Process today, while some soap makers use the historical hot process.

Objective:- The objective of the formulations and evolution of polyherbal paper soap is to create a versatile and convenient hygiene product that combines the benefits of herbal ingredients with the portability and ease of use of paper soap. This involves developing formulations that incorporate a blend of multiple herbal extracts known for their cleansing, moisturizing, and nourishing properties. The evolution of polyherbal paper soap aims to improve its effectiveness, fragrance, durability, and overall user experience through continuous research, development, and innovation.



Fig :- Paper Soap

	Aloe Vera Gel	18 ml.
	Perfume	3 ml.
	Green Colour	2 gm.
	White Petroleum Jelly	8 ml.

MATERIAL AND METHODS: -

Selection and Collection of herbs: - The herbs for a Researched were selected on the basic of brief Literature review and surfing of general and Publication. Neem oil, pure almond oil, rosewater, Aloe Vera gel are selected for the development of paper soap.



Fig :- Rose Water



Fig :- Neem Oil,Almond Oil Glycerine

Procedure:

The extract combinations were added in water and all the ingredients (Neem oil, Almond oil ,Aloe vera,Fuller's earth,Glycerine,Rosewater)were Added and Sodium lauryl sulphate along with Perfume stirred well and both the contents were Mixed together thoroughly and the volume was Made up using green colour. warm the semi-Solid liquid and we added white petroleum jelly and shaking some times and A4 size butter paper on spread. After that drying paper some time and cut the paper in size then covered to pack. Poly Herbal paper soap strip ready.

Herbal paper soap :-

Paper soap is a thin soap sheet. It is an anionic Surfactant that is used in conjunction with Water for Washing and cleaning, but these times every person Use Herbal because Herbal products no side effects This reason to we are using Herbal products and Making Herbal paper soap. Polyherbal soap was prepared by using sandal wood and Orange peel extract and evaluated by using various evaluation parameters such as organoleptic characteristics, pH, foam height and retention, skin irritation and high temperature stability.

Result :-

Formulation :-

Sr No	Ingredient	F1	F2	F3
	Neem Oil	8 ml.	8ml.	4 ml.
	Almond Oil	10 ml.	10 ml.	10 ml.
	Fuller's Earth	6 gm.	6 gm.	10 gm.
	Sodium Lauryl Sulfate	10 gm.	5 gm.	10 gm.
	Rose Water	20 ml.	20 ml.	20 ml.
	Glycerine	15 ml.	20 ml.	15 ml.
	Aloe Vera Gel	18 ml.	18 ml.	18 ml.
	Perfume	3 ml.	3 ml.	3 ml.
	Green Colour	2 ml.	2 ml.	2 ml.
	White Petroleum Jelly	8 ml.	8 ml.	8 ml.

Sr No	Ingredient	Quantity
	Neem Oil	4 ml.
	Almond Oil	10 ml.
	Fuller's Earth	10 gm.
	Sodium Lauryl Sulfate	10 gm.
	Rose Water	20 ml
	Glycerine	15 ml.

Evaluation: -**Physicochemical: -**

Various Evaluation parameters which are mentioned below Were performed to establish quality of the prepared Formulations.

Sr No	Parameter	F1	F2	F3
	Colour	Brown	Green	Light Green
	Odour	Light Pleasant	Pleasant	Pleasant
	Texture	Less Smooth	Smooth	Very Smooth
	PH	7.8	8	7.1
	Foam Height (cm)	20	24	27
	Foam Retention (min)	2.5	4	6



Fig :- Sodium Lauryl Sulfate

Evaluation :-**Physico- chemical: -**

Various physicochemical parameters which are Mentioned below were performed to establish Quality of the prepared formulations.

Sr No	Parameter	Test
1.	Colour	By Visually
2.	Odour	By Smell
3.	Texture	By Touch

PH: - The pH of all the prepared formulations was

Determined by using Digital pH Meter. The Formulations were dissolved in 100 ml of distilled Water and stored for two hours. The measurement of pH of formulation was done in previously calibrated Ph meter.

Foam Height:- 0.5gm of sample of soap was taken, dispersed in 25 MI distilled water. Then, transferred it into 100 ml Measuring cylinder; volume was make up to 50 ml With water. 25 strokes were given and stand till Aqueous volume measured upto50 ml and measured The foam height, above the aqueous volume.

Foam Retention:- It is tasted by “patch test . Apply product on 1 cm Patch of skin, if no any inflammation or rashes then It considered as free from sensitivity.

Sensitivity:- It is tasted by “patch test . Apply product on 1 cm Patch of skin, if no any inflammation or rashes then It considered as free from sensitivity.

Irritations:- It is carried out by applying product on the skin for 10 minutes. If no irritation then it is considered as Non –irritation product .

Paper spread ability: - A pinch of product should be easily spread ability on Paper.

DISCUSSION: -

The prepared paper soap formulation was Standardized by evaluation various physiochemical Properties such as pH, clarity, Colour, odour, foam Heights, foam retention, Sensitivity, irritation, paper stability. We are Choose butter Paper because normal butter papers quality not good for spread ability so that we have used a butter paper of A4 size. Ayurvedic soap prepared from the herbs are said to have no side effects in Ayurveda system. An Ayurvedic herbs is a plant source which is used in the preparation of Ayurvedic soap when compared to other synthetic drug Ayurvedic Herbal soap do not cause any side effects .The Ayurvedic science which work based on the herbs promises wonder to mankind when taken in a wiseand prudent manner. Herbal products are very affective products and natural products which can be made by the natural ingredients or natural things. Presents works formulation and evaluation of Herbal paper soap was aimed to formulate a Herbal Paper soap using Herbal with a hope to the side Effects as minimize. As per evaluation test Formulation f3 is most standard formulation as Compare to F1 & F2 formulation because The pH of F3 is 7.1 which is likely closed to skin pH and there Is no irritation and sensitivity found during test Moreover form retentionand form quality of f3 is Much better than F2.

Literture Review :-

Polyherbal paper soap is a unique form of soap that combines multiple herbal ingredients in a convenient paper-based format. It has gained popularity due to its portability, ease of use, and potential therapeutic benefits. Here is a brief literature review of the formulations and evolution of polyherbal paper soap. Polyherbal paper soap formulations typically involve the combination of various plant extracts, essential oils, and other natural ingredients. These formulations are designed to provide a range of beneficial properties such as antimicrobial, antifungal,

anti-inflammatory, and moisturizing effects. Researchers have focused on selecting specific herbs and plants known for their therapeutic properties and incorporating them into polyherbal soap formulations. Examples of commonly used herbs include neem, tulsi (holy basil), aloe vera, turmeric, rosemary, lavender, and tea tree oil. Each herb contributes its unique active compounds and benefits to the soap.

CONCLUSION :-

In conclusion, from the prepared Herbal paper soap Strips, the strips of A4 size butter paper shows the Best results as compared to other selected papers. The Herbal soap strip show excellent release within 15 minutes indicating good efficiency and Penetration. The prepared Herbal soap strips are Convenient to use and new type of useful the all ages And sex. Herbal paper soap is a very good things that Used in travelling. Herbal paper soap is of chemical Free, it is a very handy things and is small. Nowadays, The use of paper soap is very high that reason but There is no loss of Herbal paper soap. Herbal paper Soap very easily to carryout in purrs. The detailed Concluding remarks are as under which primarily Reflects the conclusion of various authors Maintained in their studies. Ayurveda is one of such Inherited tradition of health and longevity. A wide Variety of plants have been found to have effective Against number of ocular diseases. The process of making paper soap is performed by spreading material on A4 size butter paper shows the best results as compared to other selected papers. Formulated paper soaps was evaluated for physicochemical, pH foam height, form retention, Sensitivity, Irritation and Paper spread ability and the obtained results were in the acceptable limits. The formulated liquid soap containing turmeric Neem oil, Almond oil, Aloe vera was found to be easier and simpler, to produce stable paper soap. It is also having accepted range of antimicrobial efficacy which may act as alternative of the liquid soap and very easily to carryout in purrs containing synthetic antimicrobial agent.

REFERENCES :-

1. Mondal S, Kolhapur SA. Evaluation of the Antimicrobial efficacy and safety of Pure Hands Herbal hand sanitizer inhand hygiene and on Inanimate objects. *The Antiseptic*2004;101(2): 55-57.
2. Charu G, Anita B, Sanjai S. Designing herbal Formulations from Callistemon rigid us and Alstoniascholaris to combat multidrug resistant Infectious Microorganisms www.aseanbiodiversity.info/Abstract/52001593.pdf 20/10/2015.
3. Joshi MG, Kamat DV, Kamat SD. Evaluation of Herbalhandwash formulation. *Natural Products Radiance* 2008;7(5): 413-415.
4. Marjorie MC. Plant products as antimicrobial Agents, *Clinical Microbiology Reviews* 1999;12(4): 564-582.
5. Luximon RA, Bahroun T, Soobrattee MA, Aruoma OL. Antioxidant activities of phenolic ,Proanthocyanidins, and flavonoid components in Extracts of Cassia fistula. *Journal of Agriculture And Food Chemistry* 2002; 50: 5042- 5047.
6. Souwalak P, Nongyao P, Vatcharin R, Metta O. Antifungal activity from leaf extracts of Cassia Alata L,

Cassia fistula, and Cassia tora L. *Journal of Science and Technology*2004; 26(5):741-748.

7. Priya S, Zeeshan A, Salma K, Bhuvaneshwari. Study of antifungal activity of different extracts of Cassia fistula and bioactivity guided isolation and Identification of antifungal agent. *International Journal of Pharma World Research*2010;1(2):1-19.
8. FORMULATION AND EVOLUTION OF POLYHERBAL PAPER SOAP KISHORI COLLEGE OF PHARMACY, BEED 18
9. Gusviputri A, Meliana N, Aylilianawati, Indraswati N. Pembuatan Sabun Dengan Lidah Buaya (Aloe Vera) sebagai Antiseptic Alami. *Jurnal Widya Teknik*, 2012; 12 (1):11-21.
10. Kamat S.D. "Evaluation of herbal handwash formulation" *Natural Product Radiance*, volume-7(5), 2008, page. no. 413.
11. Kareru P.G., Keriko J.M., Kenji G.M., Thiong'o G.T., Gachanja A.N., Mukiira H.N., "Antimicrobial activities of skincare preparations from plant extracts", *Afr. J. Traditional, Complementary and Alternative Medicines*, volume- 7(5), 2018, page. no.215.

