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FORMULATION AND EVALUATION OF HERBAL SHAMPOO

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ABSTRACT

Hair is an important part of the body appeal and its look is a health indicator. Accordingly, recent advances in hair science and hair care technologies have been reported in literature. claiming innovations and strategies for hair treatments and cosmetic products. The treatment of hair and scalp, primarily, involved the use of shampoo for an effective, but gentle cleansing; however,for years, the shampoo is considered not only as a cosmetics product having the purifying purpose, but it is also responsible for maintaining the health and the beauty of hair, imparting gloss and improving manageability. For meeting the needs of a multitasking formulation, following also the recent marketing-trend addressed to the "natural world", new challenges for cosmetic technology are aimed towards the research of natural ingredients, as well as new techniques for shampoo formulation. herbs or flours as washing bases alternative to the traditional ones consisting of a combination natural surfactants, together with other usual ingredients expected in a shampoo formulation. improbable that herbal shampoo, although better in performance and safer than the synthetic one will be popular with the consumers. A more radical approach in popularizing Harbal shampoo would be to change the consumers' expectations from a shampoo, with emphasis on safety and efficacy. The present paper emphasizes on composition, types, methods of evaluation, also a brief review on herbal Shampoo formulations. Formulating a pure herbal shampoo and assessing and contrasting its physicochemical properties herbal shampoos were the goals of the study. From this review it conclude that the extracts of cyperus scariosus, sapindusdetergens, jamaica sorrel etc will be added in varying amounts to a 10% aqueous flax seed solution to create the herbal shampoo. Also as a preservative, a small amount of xantum gum will be added, and citric acid used to adjust the pH.

KEYWORD : *Herbal Shampoo , Natural Ingredients ,Evaluation Ofshampoo*

LITERATURE SURVEY

1) Mrs.K.Sravanthi N.Kavitha,
College of Pharmacy,Turkayamjal, Rangareddy District,Telangana,5015Review on Formulation and Evaluation of Herbal AntiDandruff ShampooVolume 6, (3) May – June 2021
Hair is an integral part of Human beauty. In humans ‟ hair serves lot of purposes like protection against external factors, sebum, apocrine sweat and pheromonas product and thermoregulations(1). Hair care products are primarily meant for sanctifying the hair. It also modifies the hair texture, provides aliment to the hair and gives healthy look to the hair(2). Shampoo is the most common hair care dress. It's available either in thick liquid or greasepaint form, applied for drawing hair and crown from dirt, remainders of preliminarily applied hair styling products and environmental adulterants.

2) Singh M , Yadav P
A REVIEW ON COSMETICproducts SHAMPOO IJCRT | Vol 9,Hair is an important part of the body appeal and its look is a health indicator. Accordingly,recent advances in hair science and hair care technologies have been reported in literature claiming Innovations and strategies for hair treatments and cosmetic products. The treatment of hair and scalp, primarily, involved the use of shampoo for an effective, but gentle cleansing; however, for years, the shampoo is considered not only as a cosmetic product having the purifying purpose, but it is also responsible for maintaining the health and the beauty of hair, imparting gloss and improving manageability. For meeting the needs of a multitasking formulat

3) Bhagwat S.S Dr. Paulbudhe N.J
Bhagwat S.S Dr. Paulbudhe N.J (1) January 2021 /FORMULATION AND EVALUATION OF HERBAL SHAMPOO 2020 IJCRT | Vol 8,
September 2020 Shampoos are most probably used as cosmetics. It is a hair care product that is used for cleaning scalp and hair in our daily life Shampoos are likely utilizing as beautifying agents and are a viscous solution of detergents containing suitable additives preservatives and active ingredients. It is usually applied on wet hair, massaging into the hair, and cleansed by rinsing with water. The purpose of using shampoo is to remove dirt that is build up on the hair without stripping out much of the sebum. Many synthetic

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shampoo are present in the current market both medicated and nonmedicated; however, herbal shampoo popularized due to natural origin which is safer, increases consumer demand and free from side effects.

4) Shah P& Dasani.s
preparation of herbal antidandruff shampoovol 5| 2|apr-jun|2015
Malassezia furfur is reported as most common etiological agents causing Dandruff-a common skin condition that affects the scalp and hair. Several herbs are reported to be effective in controlling such fungi. In our laboratory an antidandruff herbal shampoo-Herbello was prepared and characterized. Certain improvements, specially with respect to viscosity, conditioning ability and antidandruff activity were needed. Therefore, aim of the present work is to improve the prepared shampoo. The active ingredients of various herbs were extracted and checked for their efficacy against Malassezia furfur. Most effective herbs were chosen and used in different combinations for preparation of shampoo in order to improve antidandruff activity.

Cornwell P.A first published 02 November 2017A review of shampoo surfactant technology Vol 40, (1) Surfactants form the core of all shampoo formulations, and contribute to a wide range of different benefits, including cleansing, foaming, rheology control, skin mildness and the deposition of benefit agents to the hair and scalp. The purpose of this review was to assist the design of effective, modern, shampoo surfactant technologies

5) Rao P.A et.al
Review on Herbal Shampoo and Its EvaluationVol- 3, (4) 2021
Shampooing is the most common form of hair treatment. Shampoos are primarily been products aimed at cleansing the hair and scalp. In the present scenario, it seems improbable that herbal shampoo, although better in performance and safer than the synthetic ones, will be popular with the consumers. A more radical approach in popularizing herbal shampoo would be to change the consumers‟ expectations from a shampoo, with emphasis on safety and efficacy. The present paper emphasizes on composition, types, methods of evaluation, also a brief review on herbal shampoo formulations.

6) Prof. Sirsat S.V , Rathi N.M,
Formulation and Characterization of Herbal Shampoo Vol 7, (4) April 2022
The purpose of this review is to gather information related to herbal shampoo. In day- to-day life hair care is of prime importance. A good care of hairs can be taken by use of different cosmetic products like hair oil, hair shampoo, hair gel, hair serum, hair cream etc. For cleansing and nourishing purpose shampoos are widely used by many people as it contains cleansing agents. But with this many chemicals are also involved which may damage health of hairs by continuous use. To encounter this herbal shampoo can be used which make less damage to hairs by giving good results as it contains natural ingredients

7) Venkateswara P. Kumar P et.al
Formulation and Evaluation of Herbal Anti-Dandruff Shampoo Vol 4, (2)2018.
The main aim of the present study is to formulate and evaluate herbal Anti dandruff shampoo containing natural ingredients with an emphasis on safety and efficacy. It clears dirt, dandruff, promotes hair growth, lustre, strengthens and darkens the hair. The shampoo sector is probably the largest unit of among the hair care products. Since the shampoos are one of the cosmetic product used in daily as the hair is special and cherished feature of humans. Comparative study with synthetic one.

AIM
To Prepare and evaluate herbal shampoo using herbal extract

OBJECTIVES
The main objectives are as follows –
- To formulate the herbal shampoo.
- To evaluate the herbal shampoo.
- To reduce side effects of chemical formulation.
- To improve hairs texture.
- To imparting gloss to hair and to maintain their manageability and oilinessfor hairs.

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INTRODUCTION

Hair care products can be characterized as a preparation designed to eliminate excess oil, dirt, and dandruff from the scalp and hair. Products for hair care also nourish hair and give it a healthy appearance. The invention of cake soap and the subsequent development of shampoo products in this century marked the beginning of the real technology for cleaning the hair and scalp. The Indian subcontinent is the source of the world of shampoo. It comes from the Hindi word champo, which means to massage the head using hair oil, and dates back to 1762A shampoo is a hair and scalp cleansing cosmetic preparation. Its main purpose is to rid the hair of built-up sebum, scalp debris, and hair grooming product residue. Shampoos also serve as lubricants, conditioners, medications, and other additional purposes. Surfactant serves as the primary ingredient in the preparation of the shampoo, with additional ingredients serving to boost the product's efficacy. Market-available shampoo contains artificial ingredients that are bad for the skin. These negative effects are not well known to most Hair is one of the external barometers of internal body conditions.

Shampooing is the most common form of hair treatment. The primary function of shampoo is aimed at cleansing of the hair necessitated due to accumulated sebum, dust, scalp debris etc. Various shampoo formulations are associated with hair quality, hair care habit and specific problems such as treatment of oily hairs, dandruff and for androgenic alopecia. Shampoos are liquid, creamy or gel like preparations. The consistency of the preparation depends on the inclusion of traditional soaps saturated with glycerides and natural or synthetic fatty alcohols or the thickening agents (e.g. gum, resin). Indian women use herbals such as shikkakai and reetha that are natural cleansing agents without harmful effect

Herbal shampoo is a polyherbal formulation that consist of extracts of Purple Nutsedage (Nagarmotha)(Rosasinesis (Hibiscus) and Aloe vera gel , Ritha Etc . These herbs have been selected on the basis of a traditional system and scientific justification with modern uses. Purple nutsedage medicinal name are Cyperus scariosus ,synonym are Nagarmotha & nut grass ,belongs to Family :CyperaceaeIt is colonical herb originated in india 2000 years ago and widely used in ayurveda toseveral aliments .

Ideal characters of shampoo

- It Should effectively and completely remove the dust, excessive sebum.
- It Should effectively wash hair.
- It Should produce a good amount of foam
- The shampoo should be easily removed by rinsing with water.
- It Should leave the hair non dry, soft, lustrous with good, manageability.
- It Should impart a pleasant fragrance to the hair.
- It Should not make the hand rough and chapped.
- It Should not have any side effects or cause irritation to skin or eye.

❖ TYPES OF SHAMPOO

Various types of shampoos are available and they are classified based on theirconsistency.

They are Follows

1) Herbal shampoo 2)synthetic Shampoo

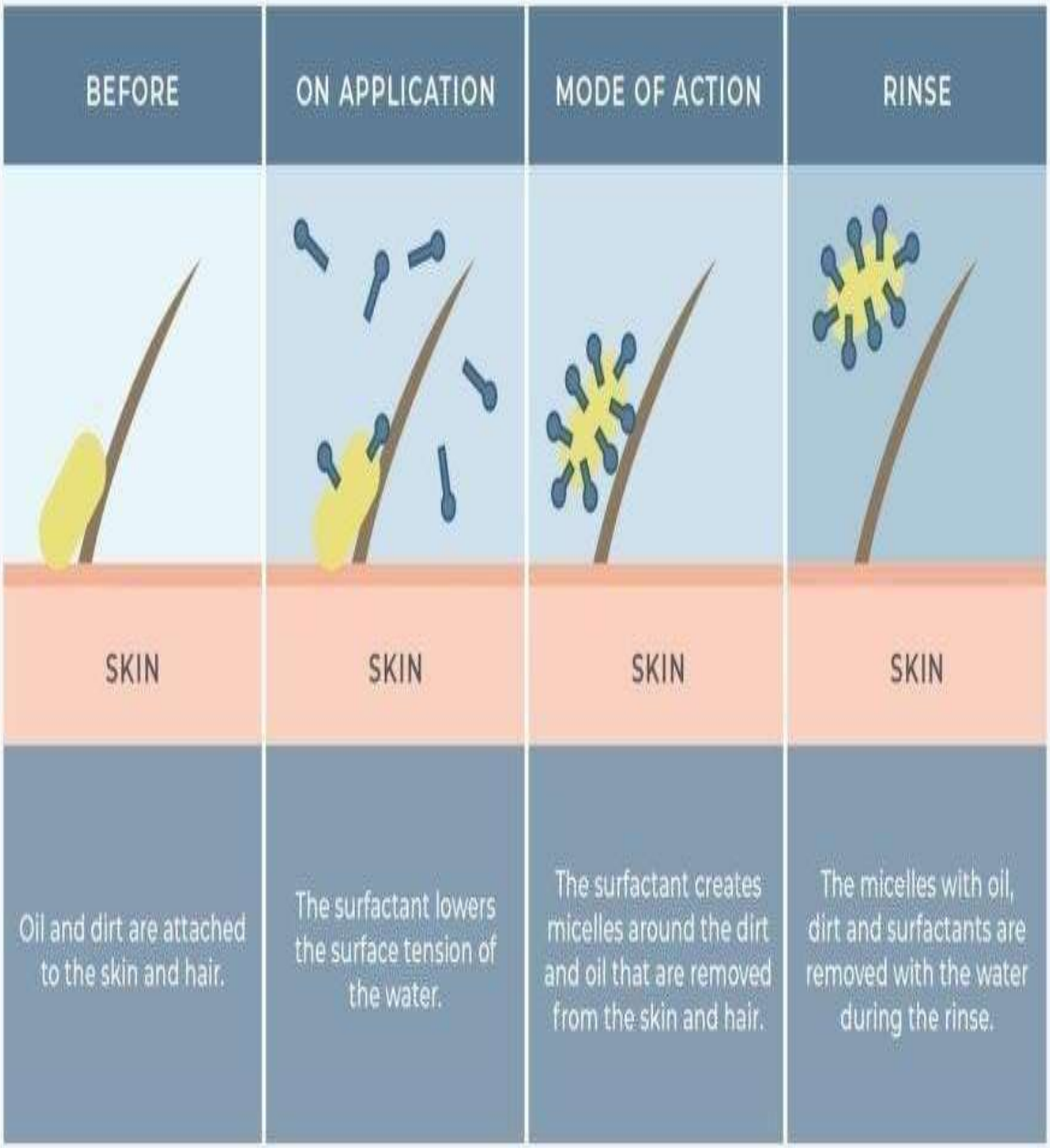
A) Based on Appearance

1. Clear liquid shampoos
2. Liquid cream shampoos
3. Cream shampoos
4. Gel shampoos
5. Powder shampoos
6. Aerosol shampoos (Foam type)
7. Special shampoo

B) Based on use or function

1. Conditioning shampoo
2. Antidandruff shampoo
3. Therapeutic shampoo
4. Baby shampoo
5. Balancing shampoo
6. Clarifying shampoo

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ADVANTAGES OF HERBAL SHAMPOO

- Theydo not provoke allergic reaction.
- Theydo not have negative side effects.
- Theyare easily incorporated with skin and hair.
- With small quantity they are very effective as compared to syntheticcosmetics.
- Easily available & found in large variety & quantity.

DISADVANTAGES OF HERBAL SHAMPOO

- Herbal drugs have slower effects as compare to Allopathic dosage form.
- It requires long term therapy.
- They are difficult to hide taste and odour.
- Manufacturing process are time consuming and complicated.
- No pharmacopoeia defines any specific procedure or ingredients to be usedin any of herbal cosmetics.

INGREDENTS

Selection of Ingredients in Herbal Shampoo

Herbal shampoo was formulated containing suitable ingredients such nutsedage Root (Nagarmotha Hibiscous flower Aloe Vera Juice, Honey, Reetha, flax seed, rose oil , Xanthan gum, The uniqueness of this polyherbal shampoo formulation is due to these active ingredients which feeds the hair from the roots, removes the fatty layer above the follicles that hinders hair growth and completely eliminates inflammation and prevents skin alopecia. Its natural property prevents aging in hair and makes hair shiny and soft.

Description of herbal ingredient used

1. Hibiscous Flower
2. Aloevera Juice
3. Lemon Juice
4. Honey
5. Xantum Gum
6. Rose Oil

❖ Hibiscous Flower



Fig. (1)

1. **Synonym**: karkade, red tea, red sorrel, Jamaica sorrel, rosella, soborodo (Zobo drink), Karkadi, roselle, and sour tea.Botanical Name: Hibiscus rosa-sinensis)
2. **Family**: Malvaceae
3. **Botanical Name**: Hibiscus rosa-sinensis)
4. **Family:** Malvacea
5. **Chemical Constituent :** flavonoids, anthocyanins, terpenoids, steroids, polysaccharides, alkaloids, amino acids**,** lipids, sesquiterpene, quinones, and naphthalene .
6. **Uses :** It is used for treating loss of appetite, colds, heart and nerve diseases, upper respiratory tract pain and swelling

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(inflammation), fluid retention, stomach irritation, and disorders circulation; for dissolving phlegm; as a gentle laxative; and as a diuretic to increase urine output.

❖ Aloevera Juice



Fig.(2)

1. **Synonym**:- Aloe barbadensis, aloe indica royle
2. **Botanical name**:- *Aloe barbadensis mille*r
3. **Family**:- Liliaceae
4. **Chemical constituent**:- Anthraquinone, Mucilagenous polysaccharide
5. **Uses**:- Conditioner, Moisturizers

❖ Lemon Juice



Fig.(3)

1. **Synonym:-** Citrus limon.
2. **Botanical name:-** Citrus limon (L.) Burm.
3. **Family:-** Rutaceae

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4. **Chemical Constituent:-** its high content of phenolic compounds, mainly flavonoids (e.g., diosmin, hesperidin, limocitrin) and phenolic acids (e.g., ferulic, synapic,
   i. p-hydroxybenzoic acids). The essential oil is rich in bioactive monoterpenoids
   ii. such as D-limonene, β-pinene, γ-terpinene

5. **Uses;** Support Heart Health. Lemons are a good source of vitamin C. ...
   i. Help Control Weight. Lemons are often promoted as a weight loss food.

❖ **Honey**



Fig.(4)

1. **Synonym**:- Shahd, Madhu
2. **Botanical name**:- Apis mellifera
3. **Family:-** Apidae
4. **Chemical constituent:-** Amino acid, Phenols, carbohydrates
5. **Uses:-** Natural Humectant, To return shine and moisture for dry hair

❖ **Xantum Gum**



Fig.(5)

1. **Synonym:-** Corn sugar gum
2. **Botanical name:-** Xanthomonas campestr
3. **Family:-** Leguminous
4. **Chemical constituent:-** Mannose, glucuronic acid
5. **Uses:-** Thickning agent ,binder and skin – conditioning agent

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❖ **Rose Oil**



1. **Synonym:-** Attar of roses, Lavender oil
2. **Botanical name:-** Rosadamascena
3. **Family**:- Rosaceae
4. **Chemical constituent:-** Phenyl ethanol, Linalool nerol, geranol
5. **Uses:-** Fragrance

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