

A Review on Formulation and Evaluation of Herbal Shampoo

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Abstract: *This study aims to analyze a herbal shampoo's physiochemical function, focusing on safety, efficacy, and quality. Herbal shampoo is a natural hair care solution that removes grease, dirt, and dandruff while also promoting hair growth, strength, and darkness. It also provides softness, smoothness, and gloss to the hair. A variety of medications are used to make cosmetic shampoo. Side effects of such medications include hair loss, increased scaling, scratching, pain, nausea, and headaches.*

Potent Herbs used to make herbal shampoo are Neem [is use in herbal shampoo Prevent the dryness of hairs and flaking of hairs], Hibiscus [use for Encourage the restoration of lost hair volume], Aloe vera [cleans greasy hair thoroughly], Shikakai [Foam base] , Amla [Boost the hair and scalp] As a result, an endeavor is undertaken to create a herbal shampoo that has no negative side effects.

Keywords: Neem, Hibiscus, Aloe vera, Shikakai, Amla

I. INTRODUCTION

Herbal shampoos are commonly used to cleanse our hair and scalp on a daily basis. Herbal shampoos are cosmetic preparations that use traditional Ayurvedic herbs to cleanse the hair and scalp in the same way that normal shampoo does. They are used to remove grease, dandruff, and environmental pollutants. Shampoo is a sort of cosmetic concoction that uses plant herbs as an alternative to commercially available synthetic shampoo. Herbal shampoo is significant since people nowadays prefer herbal products over chemical ones because they have proven to be more effective. (1)

It's likely that shampoos are used as makeup. Most likely used as beautifying agents, shampoos are a viscous mixture of detergents with appropriate preservatives, additives, and active ingredients (2). White flakes of dead skin that show up in hair or on shoulders are caused by a chronic, harmless condition that starts on the scalp and becomes greasy or dry. People typically associate it with anything that causes their scalp to become flaky. seven (3)

A good shampoo should produce abundant foam quickly, regardless of the type of water used or the soil or fat to be removed from the hair. Although foam formation is not related to the cleansing effect, people psychologically prefer a high foam product. Some good shampoos have been found to have side effects, such as drying the hair. This makes the hair too dry to touch or comb. Proper hair conditioning is crucial, as some shampoos can irritate the eyes and cause long-lasting cloud. They should be (4)

HISTORY

Many plants and their extracts have been used as shampoos on the Indian subcontinent since antiquity. Sapinda's, also known as soapberries or soapnuts, was boiled with dried Indian gooseberry (amla) and a variety of other herbs before being filtered to produce an extremely potent early shampoo. Sapindus is a tropical tree known in India as ksuna. (5) This plant's fruit pulp contains saponins, a natural disinfectant, as do ancient Indian scriptures. Phenaka is the term used in Indian texts to describe the lather produced by soapberry extract. Following treatment, the hair feels smoother, shinier, and more manageable. (6) Shikaki (Acacia concinna), hibiscus flower, ritha (Sapandusmukorossi), and arrapu (Albizzia amaru) are additional hair- cleansing options.

In the 16th century, Guru Nanak, the first Guru of Sikhism, mentioned soapberry trees and soap. (7) Early colonial traders in India pampered themselves with daily body and hair massages (champu). When they returned to Europe, they brought their new habits with them, including the shampoo they were using. (8)

HAIR PROBLEMS

Dandruff

Dandruff is a non-inflammatory, unpleasant skin disease that can cause hair loss and affects the crown. It is scaled and clings to the hair's base.

Hair Loss

Stress, medications, changes in hormone levels, and a variety of hair style products are the major causes of hair loss.

Dry Hair

The lack of proteins in the diet leads to short hair. Dry hair can also be caused by menopause, anemia, hormonal imbalance, and birth control lozenges.

Spilt Ends

Split ends occur when the hair ends get dry and for other causes, such as exposure to very heavy rain. Split ends can result from hair care practices including uncurling, entwining, and chemical hair products.

Oily Hair/Greasy Hair

Unruly hair is a result of excessive sebum production by the crown, a natural oil painting product. Sebaceous glands create sebum when they occasionally "work overtime," which results in an excessive amount of oil painting. (9,10,11)

ADVANTAGES

- a) Treatment for greasy or oily hair.
- b) Reduces itch and irritation.
- c) Repairs damaged hair.
- d) Shampoo keeps hair silky or smooth.
- e) Promotes hair growth and beauty. (12,13)

TYPES OF SHAMPOO

- Powder Shampoo
- Liquid Shampoo
- Lotion Shampoo
- Cream Shampoo
- Jelly Shampoo
- Aerosol Shampoo
- Specialized Shampoo
- Conditioning Shampoo
- Anti-dandruff Shampoo
- Baby Shampoo (14)

IDEAL PROPERTIES OF HERBAL SHAMPOO

- The product should effectively remove dust, sebum, fatty substances, and loose corneal cells from the hair.
- It should produce a sufficient amount of foam to meet the psychological needs of the user.
- It should be easily removed by rinsing with water.
- The hair should be soft, shiny, and not dry, with good manageability. Fly away.
- It should leave a pleasant perfume on the hair.
- It should not irritate the skin or eyes.
- It should not leave the hands rough and chapped. (15,16)

II. MATERIALS AND METHODS

Ingredients used in formulation

1) Neem (17)



Fig.1 Neem

Biological source: Dried leaves of *Azadirachta indica*.

Family: Miliaceae

Uses: Prevent the dryness of hairs and flaking of hairs.

Azadirachta indica, commonly known as neem, is widely recognized as an effective natural treatment for dandruff, attributed to its antifungal and antibacterial characteristics. Neem demonstrates efficacy in alleviating dandruff by mitigating inflammation and itching associated with the scalp. The bioactive compounds present in neem oil are known to suppress the proliferation of fungi and bacteria responsible for dandruff, thereby fostering a healthier scalp environment. The application of neem oil directly to the scalp or the use of shampoos infused with neem extract can significantly aid in the management of dandruff and enhance overall scalp health. Furthermore, neem possesses moisturizing attributes that contribute to the prevention of dryness and flakiness on the scalp.

2) Hibiscus:



Fig.2 Hibiscus

Botanical name: *Hibiscus rosa sinensis*

Family: Malvaceae

Use: Encourage the restoration of lost hair volume.

Hibiscus rosa-sinensis, belonging to the Malvaceae family, is known for its beneficial properties for hair health. This plant nourishes hair follicles, enhances hair softness, and improves manageability. To harness the nourishing effects of Hibiscus on hair, one can utilize conditioners that prominently feature Hibiscus as a primary component. The flowers and leaves of this plant are rich in mucilage and plant proteins, which contribute to the treatment of dandruff and hair loss.

3) Aloe vera:



Fig.3 Aloevera

Botanical name: Aloe barbedensis

Family: liliaceae

Use: Calm, irritated scalp, cleans greasy hair thoroughly

Aloe Barbadensis Miller, belonging to the Asphodelaceae family, is recognized for its potential to alleviate inflammation, thereby benefiting individuals experiencing dandruff-related symptoms, including itchiness. The antifungal and antibacterial characteristics of Aloe vera may contribute to the prevention of dandruff. Additionally, it aids in restoring the scalp's pH balance and promotes hair growth.

4) Shikakai



Fig.4 Shikakai

Biological source: Dried pods of Acacia concinna

Family: Mimosaceae

Uses: Foam base, cleansing agent and anti-dandruff

A variety of advantages contribute to the optimal appearance of hair. This product effectively inhibits the onset of gray hair, thereby preserving a lively and youthful hue while imparting remarkable shine for a radiant look. It thoroughly

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cleanses the hair, eliminating impurities and product buildup, and simultaneously tackles hair loss by fortifying strands to reduce breakage. Furthermore, it offers protection against conditions such as lice, psoriasis, eczema, and scabies. Ultimately, it aids in maintaining smooth and healthy hair.

5) Amla



Fig.5 Amla

Botanical name: Embelica officinalis

Family: Phyllanthaceae

Use: Boost the hair and scalp. (18,19,20)

Amla, commonly referred to as Indian gooseberry, is a highly regarded medicinal plant celebrated for its advantageous effects on hair care. Abundant in vitamin C and antioxidants, amla fortifies hair follicles, stimulates hair growth, and aids in the prevention of premature graying. Its inherent astringent qualities help regulate scalp oiliness and address dandruff issues, while its nourishing elements contribute to improved overall hair health, enhancing shine and minimizing breakage. Frequently incorporated into oils and hair masks, amla serves as a fundamental component in traditional practices aimed at preserving vibrant and resilient hair.

PREPARATION OF HERBAL SHAMPOO

Take one tablespoon each of the liquorice powdered and Shikakai. Take 3/4 of a tablespoon of Amla powder. Measure out 1/4 tsp of neem powder and soap nut. And 3 cups of water. And also take hibiscus flowers and aloe vera . Prepare it by combining all herbs. After adding two cups of water, simmer the mixture. Once the ingredients begin to foam, observe it closely. Avoid heating it to a boil. For fifteen minutes, heat it on low heat without covering. To remove the oil, use a filter or a washcloth. Keep in mind that draining will take a long time. Gather this into a bowl or cup. You can now add the hibiscus of your choice. After that, add water, and move to a better container so you can use it frequently. (21,22)

INGREDIENTS

Sr.No	Drugs Name	parts	Quantity for 100g
1	Neem	Leaves	09%
2	Hibiscus Flower	Flower	12%
3	Aloe Vera	Leaves	07%

4	Shikakae Powder	Pods	22%
5	Liquorice Powder	Root	05%
6	Amla Powder	Fruit	25%
7	Soap Nut	Nut	20%

Table - Extraction of Herbal drug

III. CONCLUSION

Hair loss, scalp irritation, itching, and dandruff are among the issues that the younger generation is dealing with today. Synthetic shampoos are known to cause additional problems, such as eye and skin irritation, and may increase our risk of developing cancer and other diseases. Herbal shampoo is always preferable to commercial shampoo because it causes fewer side effects.

REFERENCES

- [1]. Maurya, Shashikant Maury, Piyush Yadav, Manoj Kumar Yadav, Suraj Maurya, Satyam Jayaswal Department of pharmacy Prasad Institute Of Technology, Jaunpur, Uttar Pradesh (India) A REVIEW ARTICLE ON: HERBAL SHAMPOO 2021 JETIR May 2021, Volume 8
- [2]. Suchita gokhale¹, ashwini h. Pawshe², srushti p. Patil², raj m. Pitambare and priyam s. Pawar² 1extraction, formulation and evaluation of moringa herbal shampoo issn: 2320-5407
- [3]. Shah prachi & dasani sonal preparation of herbello- an herbal antidandruff shampoo volume 5 | issue 2 | apr-jun | 2015
- [4]. P. Venkateswara Rao R. Prince K. Terejamma T. Chaitanya Prasanna Kumar Desu T. Chaitanya, Prasanna Kumar Formulation and Evaluation of Herbal Anti- Dandruff Shampoo Volume 4, Issue 2, 2018,
- [5]. Mr. Barde Gauravs, Prof. Mali Shubhangi R (2022) "Herbal Shampoo: A review" Vol. 3, (6) 2582-7421
- [6]. Abhay P. Kardile, Mahesh P. Kolhe, Maheshwari A. Chaudhari, Snehal D. Laid, Mahesh B. Kshirsagar (2023) "A review on Herbal shampoo" vol. 4, (5) 2582- 7421
- [7]. Jammaokaveri, Gaikwad vishal Shivaji. "A review on Herbal Shampoo"; ijcr, vol-10, 23202882
- [8]. Badi KA, Khan SA. "Formulation, evaluation & Comparison of the herbal Shampoo with the Commercial Shampoo", Beni-suefuniv I Basic Appl sci 2014; 3: 301-5.
- [9]. Dr. Hingane I. D., Miss Khade P. B. (2023) "Formulation & Evaluation of Herbal Shampoo" IJPRA Vol. 8, (3) 2249-7781
- [10]. Ms. Shital Ashok Kadam, Mrs. Manisha B. Parhad, Dr. Gajanan Sanap (2023) "A review on Herbal Shampoo & its Evaluation" vol. 10, (3) 2349-5162
- [11]. Haritha PN, Supraja P, Samreen S., Hrudayemjali, Qureshi M, Sundya P, Sweta
- [12]. T. "A Review polyherbal Shampoo powder". Int. J pharm Res. 2021 21(2): 346- 63.
- [13]. Mrs. K. Sravanthi N. Kavitha, K. Sowmya, S. Naazneen, U. Vaishnavi, CH. Anil St. Pauls college of pharmacy, Turkayamjal, Rangareddy District, Telangana, 5015A Review on Formulation and Evaluation of Herbal Anti Dandruff Shampoo Volume 6, Issue 3 May – June 2021
- [14]. Suyog Sunil Bhagwat Dr. N. J. Paulbudhe College of Pharmacy, formulation and evaluation of herbal shampoo 2020 ijcr | Volume 8, Issue 9 September 2020
- [15]. Sharma, P.P., Cosmetics- Formulation, Manufacturing and Quality control, 3rd edition, 703.
- [16]. Mr. Barde Gaurav, Prof. Mali Shubhangi International Journal of Research Publication and Reviews, Vol 3, Issue 6, pp 74-81, June 2022
- [17]. Mayank Singh, Piyush Yadav Manish Kumar Maurya, Satyam Jaiswal Nitin Yadav A REVIEW ON COSMETIC products SHAMPOO 2021 IJCR | Volume 9, Issue 1 January 2021
- [18]. C. K. Kokate, A.P. Purohit, S.B. Gokhale; pharmacognosy book, Neerali publication; 55th edition
- [19]. Miss, Waghmode Monika vasant, Dr Hingane I. D. Adi (2022), "Formulation & Evaluation of Shampoo", TRASET vol. 10, (6) 2321-9653

- [20]. Meduri Teja Sri, Munnangi Lakshmi Divya, PotharajuSreevami, Suravarapu Sri Tejaswi, swami vasavi Rama Deepthi, Uppala vandana, Yepuri, Vadlamudi Pallavi, Nadendla Rama Rao (2021) “formulation & evaluation of fermented rice water herbal shampoo JDDT 127130.
- [21]. N Rajesh Kumar, T. Dineshkumar, K. Hariharan, A. V. Navaneetha Krishnan, C. Pavitharani, S. Subash, P. Manikandan, M. Surendra Kumar (2022) “Formulation and Evaluation of Herbal Baby Shampoo”, JPRI, 2456- 9119.
- [22]. Gennaro A.R, “Remington: The Science and Practice of Pharmacy”, Lipincott Williams and Wilkins, Maryland, Twentieth edition, 2000; 437.
- [23]. Mehta R.M, “Dispensing Pharmacy”, Vallabh Delhi, 1st edition, 2000; 108