

REVIEW: ANTI DANDRUFF HERBAL HAIR MASK**Dr. Rahulkumar D. Rahane*¹, Miss. Supriya A. Chavhan*², Mr. Raj Sutar*³,****Miss. Pratibha P. Rathod*⁴, Miss Sahyadri B. Thete*⁵,****Miss Tejal R. Rokade*⁶, Mr. Pankaj N. Kakade*⁷**

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ABSTRACT

The hair is the most delicate part of the scalp. Dandruff is a major and common problem in today's society. In that condition, the skin produces flake on the scalp, causing itching. Chronic scalp condition that is severe because it affects a wide variety of scalp tissue. Include redness, itching, flaking, and sometimes even hair loss. It is important to seek medical attention if these symptoms persist or worsen. In the ancient Indian medical system Ayurveda, it is recommended to use natural herbs like Amla, Neem, and Shikakai for maintaining healthy hair. These herbs are known to nourish the scalp and strengthen hair follicles, leading to thicker and stronger hair. The formulation focuses on creating and evaluating a multi-herbal anti-dandruff formulation, the main ingredient in the preparation of herbal mask is Amla, Bhringaraj, Hibiscus, Shikakai, Ginger, etc. which have been chosen to create the herbal hair mask based on the conventional method and modern use's scientific support. The herbal powder's chemical content was zero because it only contained all-natural ingredients that wouldn't damage your hair.

Keywords: Anti-Dandruff, Herbal, Hair Mask, Promote Hair Growth, Herbs, Natural.

I. INTRODUCTION

Hair are the delicate part of the body. Hair development is controlled by a complex and dynamic mechanism that is still unknown. Hair shaft synthesis, elongation, and eventually loss is all part of this cyclical mechanism. Human hair consists of follicles in the antigen, cartage, and telogen and exogen stages.



Fig 1: Stages of hair growth

In our day-to-day lives, we face many problems that lead to dandruff, which remains a significant and widespread issue today. Its primary cause of flakes is not clearly apparent, however there are numerous contributing issues, including an excessively oily skin, inadequate cleanliness that can result in fungal infections, and an increase in frequency whenever scalp is left unwashed for some weeks. This condition results in skin itching from the flakes on the scalp. In the majority of dermatological skin conditions, lice is a chronic, allergic condition of the hair follicle that is evident from a broad range of scalp being harmed. These herbal products

are widely accessible, affordable, secure, efficient, and have very few side effects. Since ancient times, herbal shampoos, conditioners, and hair masks have been popular. Natural remedies are increasingly used worldwide these days. Based on the results of this investigation, it was determined that the formulation of an anti-dandruff herbal hair mask has all the desirable qualities of an ideal herbal hair mask, is safe, is more effective, and is commercially viable.

1.1 NEED OF ANTI DANDRUFF HERBAL HAIR MASK

- The reason for this herbal mask is a perfect solution for those who want to get rid of dandruff without using harsh chemicals.
- The natural ingredients in the mask not only help in eliminating dandruff but also nourish the scalp and promote healthy hair growth.
- Its natural ingredients make it safe for regular use without any harmful side effects.

II. INGREDIENT

For hair masks with hair care properties, various herb parts are chosen. Amla, Neem, Reetha, Hibiscus, Ginger, Bhringraj, Tulsi, and Shikakai are among the herbs. The powder of the following fruits and leaves is gathered: Amla, Neem, Reetha, Hibiscus, Ginger, Bhringraj, and Shikakai. The ingredients used in hair care products are meant to nourish the scalp. Herbs have been used as shampoos, conditioners, and hair masks since ancient times. The ability to both prevent skin damage and enhance skin quality exists in all of the herbs that are chosen as powders. In this essay, we put into practice the creation and assessment of an herbal hair mask.

2.1 AMLA

Amla is a superfood that nourishes hair, follicles, and the scalp because it is loaded with vitamins and minerals. Moreover, it improves blood flow, which stops hair loss. Also, it gives the follicles oxygen, which strengthens the fibers.

Found in	Gir Wildlife Sanctuary
Family	Phyllanthaceae
Species	P. emblica
Zoological name	Phyllanthus emblica
Genus	Phyllanthus

2.2 NEEM

Neem aids in scalp cleansing. It promotes healthy hair development and unclogs congested pores. The ability to regenerate is crucial for the treatment of dandruff. It can be utilized for dealing with a range of problems relating to hair because it has preservatives and therapeutic characteristics. Use a neem leaf-based rinse to get rid of dandruff. Neem is the most frequently used component in hair care products.

Family	Meliaceae
Genus	Azadirachta

2.3 REETHA

Reetha appears to be very helpful for skin cleansing and has cooling effects. It maintains the moisture of the scalp and prevents hair from getting dried off. The benefits of using Reetha on the skin are fantastic. It softens and silkens the scalp. Additionally, it is used on the head to get rid of cell flakes.

Family	Sapindaceae
Genus	Sapindus
Order	Sapindales
Kingdom	Plantae

2.4 HIBISCUS

The finest element for hair is hibiscus, often known as "Gudal." In order to treat hair loss, regeneration, and regrowth, it is employed. Hibiscus has amino acids, alpha hydroxyl acids, both A and C vitamins, and additional

nutrients that are advantageous to the hair and scalp. reduces the risk of dandruff and keeps your scalp healthy and effective for the hair and scalp. reduces the risk of dandruff and keeps your scalp healthy.

Family	Malvaceae
Kingdom	plantae

2.5 GINGER

Ginger is an excellent hair conditioner that makes your hair soft, shiny, and easy to comb. Minerals and essential oils are abundant in it as well. reduces irritation, flaky scalp, and dryness. It has antiseptic and anti-inflammatory properties by nature. qualities that encourage keeping a clean, healthy scalp.

Family	Zingiberaceae
Species	Z. officinale
Genus	Zingiber
Kingdom	Plantae

2.6 BHRINGRAJ

Bhringraj is an herb that helps with hair growth. a well-known naturopathic ingredient used to promote hair growth by encouraging and starting the hair growth that is likely lost due to dandruff. Increased blood flow to the scalp is a benefit of it. Additionally, it prevents problems caused by dandruff and scalp inflammation that have no bearing on hair growth.

Family	Asteraceae
Kingdom	Plantae
Order	Asterales
Scientific name	Eclipta prostrata

2.7 TULSI

Tulsi, also referred to as holy basil, it enhances blood circulation, lessens itching and dryness, strengthens hair follicles, and creates healthy roots while also assisting in maintaining moisture in the scalp. Additionally, it stimulates blood flow, calms the scalp, lessens itching and dandruff, and promotes hair growth.

Family	Lamiaceae
Kingdom	Plantae

2.8 SHIKAKAI

Shikakai has a special capacity to wash the scalp without irritating it, making it effective as an anti-dandruff remedy. It is very beneficial for treating persistent dandruff caused by an excess of scalp oil. It benefits by taking away excess oil from the scalp. Decrease dandruff when used regularly. One of the most effective Ayurveda medicines for hair-related issues, including hair fall, is Shikakai. Shikakai aids in cleaning the scalp of debris and surplus oil and encourages hair development.

Common Name	Shikakai, Soap-Pod
Family	Fabaceae

2.9 ROSE WATER

Water and rose petals are combined to create rose water. Due to its sweet aroma, it is used as a perfume, but it also has culinary and medical benefits. The usage of rose water has a long history in medicine dates back to the 7th century, and was practiced in several middle eastern countries, including Iran. There is proof that Native American tribes used it to treat illnesses as well.

III. MATERIAL & METHOD OF PREPARATION

3.1 MATERIAL

The various sources of herbs are chosen for an anti-dandruff hair mask that has hair care properties. The herbs

are Amla, Neem, Reetha, Hibiscus, Ginger, Bhringraj, Tulsi, and Shikakai. The powders of Amla fruit, Neem leaf, Reetha fruit, Hibiscus flower, Ginger fruit, Bhringraj leaf, and Shikakai fruit are collected from natural sources. In this formulation, herbal ingredients used as ingredients in hair care products give nutrition to the scalp. All herbs that are chosen as ingredients in hair care products are frequently able to both improve and prevent damage to the scalp's skin. Our goal in the current study is to create and assess an herbal hair mask. People with hair issues like dryness, breakage, and hair loss may find relief from the herbal hair mask to be both natural and efficient. Additionally, it can nourish hair follicles, which could lead to thicker, healthier hair.

3.2 METHOD OF PREPARATION

Weight accurate quantity of each and every powders of Amla, Neem, Reetha, Hibiscus, Ginger, Bhringraj, Tulsi and Shikakai. Take 2 gm of Shikakai powder in 50 ml of water. Boil for 15 min. Then filter it with the help of filter paper. Then add filtrate with powder thoroughly with continuous stirring. Add sufficient quantity of rose water to get fragrance. Keep aside for five minutes.

FORMULATION TABLE

Sr. no.	Ingradiant	Quantity
1	Amla	3gm
2	Neem	4gm
3	Reetha	5gm
4	Hibiscus	2gm
5	Ginger	1gm
6	Bhringraj	4gm
7	Tulsi	2gm
8	Shikakai	2gm
9	Rose water	QS
10	Water	QS

IV. EVALUATION PARAMETER

4.1 ANGLE OF REPOSE

An easy method for figuring out how well powder will flow is to use the slope of equilibrium. Experimentally, the angle of repose can be found by letting powder freely flow through a funnel and land on a surface.

Formula:

$$\theta = \tan^{-1}(h/r)$$

here.

θ : Angle of repose

h: Height of the heap

r: Radius base of the heap

Funnel Method:

The required amount of dried powder is placed in a funnel 3 inches above a horizontal base. It was then allowed to flow and gather in a flat direction across the paper. The powder's height and radius were measured, as well as its angle of repose.

$$\theta = \tan^{-1}(2h/d)$$

h= height of the heap of powder form.

d= diameter

4.2 BULK DENSITY: -

The powder content in a cylinder per gram of weight after 50 mechanical taps is referred to as bulk density. The bulk density will be determined using W/V 50 g/ml.

Where, W=weight of container

V= container volume.

formula: DM/V

here: D: Bulk density (g/l)

M: Weight of the container (gram)

V: Container volume

4.3 TAPPED DENSITY:

The bulk ratio of a powder after it has been tapped for a set period of time is referred to as the powder's "tapped density."

Tapped Density (g/ml) = M/V_f

Where, M= mass in grams

V_f =the tapped volume in milliliters.

V. SUMMARY

The use of herbal products by consumers has increased significantly in recent years, according to a study of global hair care market trends. The hair is affected both directly and indirectly by factors like UV radiation and the use of harsh chemicals. The current study was conducted to develop an anti-dandruff herbal hair mask that will also give shine and encourage hair growth in order to address this issue. We come to the conclusion that the formulation of the herbal hair mask lessens dandruff without irritating the scalp or having any other negative effects.

VI. CONCLUSION

These studies present the use of herbal plant products with proven efficacy, such as in the preparation of hair masks. This investigation was carried out on the basis of the traditional and present day knowledge that was used to formulate the anti-dandruff herbal hair mask. Fairly frequent use of this mask results in healthy, dandruff-free hair.

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