

FROM NATURE TO YOUR HAIR: A REVIEW OF HERBAL SHAMPOOS

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ABSTRACT

The main objective of this study is to prepare, evaluate, and assess the physiochemical properties of an herbal shampoo, with an emphasis on its safety, efficacy, and quality. The goal is to formulate a natural hair care product that is effective in removing dirt, grease, and dandruff, while also promoting hair growth, strength, and overall hair health. Shampoo is one of the most popular types of hair care products. The bulk of the components in shampoos are chemicals, and because of the risk of undesirable side effects, they have come under harsh scrutiny. The purpose of this study is to look at replacing dangerous synthetic ingredients in anti-dandruff shampoo with safe, natural alternatives.

KEYWORDS: Herbal Shampoo, Hibicus, cosmetics, herbal, aloe Vera, dandruff, shikakai, ambla, brahangraj.

INTRODUCTION

Herbal Shampoos are hair care products formulated primarily with natural plant-based ingredients. These shampoos have gained popularity due to their perceived gentler, chemical-free formulation, which is believed to offer various benefits for hair and scalp health. Unlike conventional shampoos that may contain synthetic chemicals, herbal shampoos typically use herbs, plant extracts, and essential oils that are known for their therapeutic properties.

Definition

Herbal shampoo refers to a type of shampoo made primarily from natural plant-based ingredients, such as herbs, flowers, leaves, and essential oils. These shampoos are designed to cleanse the hair and scalp without the harsh chemicals often found in conventional shampoos. Herbal shampoos are marketed as gentler alternatives that can provide additional benefits depending on the herbs included, such as promoting hair growth, soothing the scalp, preventing dandruff, or adding shine.

Some common ingredients in herbal shampoos include:

- **Aloe vera** – to soothe the scalp and hydrate the hair.
- **Chamomile** – to lighten and enhance hair color, and soothe irritation.
- **Tea tree oil** – known for its antimicrobial and antifungal properties, good for treating dandruff.
- **Lavender** – to promote relaxation and improve scalp health.
- **Rosemary** – may stimulate circulation in the scalp and promote hair growth.
- **Nettle** – thought to strengthen hair and improve its texture.

Herbal shampoos are often free of synthetic fragrances, parabens, sulfates, and artificial colors, making them a more natural option for people seeking a gentler, eco-friendly hair care routine.

Here's a comprehensive overview of **herbal shampoos**, including their **ingredients**, **benefits**, and how they are **formulated**:

1. Key Ingredients in Herbal Shampoos

Herbal shampoos are made using a variety of plant-based ingredients, each selected for its specific beneficial properties for hair and scalp. Common herbs and extracts include:

- **Aloe Vera:** Known for its soothing and moisturizing properties. Aloe vera helps to hydrate the scalp, reduce inflammation, and promote hair health.
- **Shikakai:** A traditional herb used in Ayurvedic medicine. It is rich in vitamins and has mild cleansing properties. It also promotes healthy hair growth and improves scalp circulation.
- **Neem:** A powerful antimicrobial herb that helps with dandruff control, itchy scalp, and scalp infections. It also has antioxidant properties that support scalp health.
- **Brahmi:** Known for its calming effects on the scalp, Brahmi promotes hair growth, reduces hair thinning, and strengthens hair roots.
- **Bhringraj:** Often referred to as the "king of herbs" for hair, Bhringraj is believed to promote hair growth, reduce hair fall, and prevent premature graying.
- **Hibiscus:** Contains vitamins and amino acids that nourish hair follicles, prevent hair loss, and enhance the shine and softness of hair.
- **Fenugreek (Methi):** Rich in proteins and nicotinic acid, fenugreek promotes hair growth, strengthens hair, and reduces dandruff.
- **Tea Tree Oil:** Known for its antiseptic and anti-inflammatory properties, tea tree oil helps to fight scalp infections, reduce dandruff, and promote healthy hair.

2. Benefits of Herbal Shampoos

Herbal shampoos offer a range of benefits for hair and scalp health. Some of the key advantages include:

- **Gentler on Hair:** Herbal shampoos tend to be free from harsh chemicals like sulfates, parabens, and artificial fragrances, which can cause scalp irritation and damage to hair over time.
- **Improved Scalp Health:** Many herbs have antibacterial, antifungal, and anti-inflammatory properties that help to keep the scalp clean, prevent dandruff, and soothe irritation or itching.
- **Hair Growth Promotion:** Herbal ingredients like Brahmi, Bhringraj, and Hibiscus stimulate hair follicles and improve circulation, helping to promote hair growth and prevent hair loss.

- **Conditioning and Strengthening:** Many herbal ingredients contain proteins, vitamins, and minerals that nourish the hair shaft, making hair stronger, more resilient, and less prone to breakage.
- **Dandruff Control:** Herbs like neem, tea tree oil, and aloe vera have antifungal and soothing effects, helping to reduce dandruff and flakiness.
- **Hair Color and Shine:** Certain herbs, such as Amla and Shikakai, are believed to enhance the natural color of hair, making it appear darker, shinier, and more vibrant.

3. Formulation of Herbal Shampoos

In this study, various **herbal ingredients** (such as **Aloe Vera, Brahmi, Shikakai, Hibiscus, Neem, Bhringraj**, etc.) may be selected based on their traditional uses and medicinal properties. The formulation should also consider the **base components** of the shampoo (like surfactants, stabilizers, preservatives, and thickeners) to ensure the product is effective, stable, and safe for use.

Evaluation Parameters

1) Physiochemical Properties

- **pH level:** A mild pH is important to prevent scalp irritation and maintain the natural balance of the scalp.
- **Viscosity:** Ensures ease of application and appropriate consistency for the shampoo.
- **Foaming ability:** The ability to produce lather that helps in effective cleaning.
- **Color and odor:** Sensory properties that influence consumer preference.
- **Storage stability:** Ensures the product does not degrade or separate over time.

2) Safety Testing

- **Dermal irritation:** Patch testing to ensure the product does not cause allergic reactions or irritation on the scalp.
- **Microbial testing:** Ensuring the product is free from harmful microorganisms, as herbal products can be susceptible to contamination.

3) Efficacy Testing

- **Hair cleansing efficacy:** Ability to remove dirt, grease, and excess oil from the scalp and hair.
- **Hair growth promotion:** Monitoring improvements in hair thickness, density, or regrowth over time (may require clinical trials).
- **Dandruff reduction:** Observation of any reduction in dandruff symptoms or flakiness.
- **Hair strength and shine:** Subjective and objective measures of hair health after regular use, such as tensile strength and overall appearance.

4) Quality Control

- **Consistency of formulation:** Ensuring batch-to-batch uniformity in product characteristics.
- **Packaging evaluation:** Ensuring that packaging materials are compatible with the formulation and preserve product stability.

Formulating a herbal shampoo involves choosing the right combination of herbal ingredients, surfactants (cleansers), and other excipients to ensure a balance between effectiveness, safety, and stability. Key components of a herbal shampoo include:

- **Surfactants:** These are the primary cleansing agents in shampoos. In herbal shampoos, mild surfactants like **Sodium Coco-Sulfate** (derived from coconut) or **Disodium Lauryl Sulfosuccinate** (gentler than regular sulfates) are used.
- **Herbal Extracts:** The plant-based extracts mentioned above are added to deliver their therapeutic benefits to the scalp and hair.
- **Conditioners:** Ingredients like **glycerin**, **panthenol**, and **silicone derivatives** are used to enhance moisture retention and hair softness.
- **Essential Oils:** These oils (e.g., tea tree oil, lavender oil, peppermint oil) not only provide fragrance but also offer additional benefits such as scalp stimulation, relaxation, and antimicrobial effects.
- **Preservatives:** Since herbal shampoos typically contain water, preservatives are necessary to prevent microbial growth. Natural preservatives such as **phenoxylethanol** or **potassium sorbate** are commonly used.
- **Thickeners:** To achieve the desired consistency, natural thickeners such as **xanthan gum** or **guar gum** may be added.

4. Types of Herbal Shampoos

Herbal shampoos can be tailored to address specific hair and scalp needs, resulting in various types:

- **Anti-dandruff Herbal Shampoos:** These contain ingredients like **Neem**, **Tea Tree Oil**, and **Aloe Vera**, which help to reduce dandruff, prevent itching, and soothe the scalp.
- **Hair Growth Herbal Shampoos:** These shampoos typically include herbs like **Bhringraj**, **Brahmi**, and **Amla** to stimulate hair follicles, improve circulation to the scalp, and reduce hair fall.
- **Moisturizing Herbal Shampoos:** Ideal for dry or damaged hair, these shampoos contain moisturizing ingredients like **Aloe Vera**, **Hibiscus**, and **Fenugreek** to hydrate the scalp and restore moisture to the hair shaft.
- **Strengthening Herbal Shampoos:** For weak, brittle hair, ingredients like **Shikakai**, **Bhringraj**, and **Amla** help to strengthen hair, reduce breakage, and improve overall hair health.
- **Color-enhancing Herbal Shampoos:** Some herbal shampoos are formulated with herbs like **Amla** or **Shikakai**, which are believed to enhance hair color and provide a natural shine.

5. Evaluating Herbal Shampoos

When developing or selecting an herbal shampoo, the following factors are essential for evaluation:

- **Efficacy:** Does the shampoo perform its intended function (e.g., cleaning, dandruff control, hair growth promotion)? Efficacy can be tested through both subjective (user experience) and objective (clinical trials, laboratory analysis) methods.
- **Safety:** Herbal shampoos should be dermatologically tested for safety. This includes patch testing to assess for allergic reactions, irritation, and other side effects.
- **Physicochemical Properties:** These include the shampoo's pH, viscosity, foaming ability, and stability over time. A good herbal shampoo should have a balanced pH (around 4.5 to 5.5) to be gentle on the scalp.
- **Packaging:** Proper packaging helps preserve the product and prevent contamination. Packaging should also be practical and consumer-friendly.

HISTORY

The history of herbal shampoo traces the use of plant-based ingredients in hair care from ancient times to the present day. Many cultures have relied on herbs and natural extracts for cleansing, conditioning, and promoting hair health, long before the commercial production of modern shampoos.

Ancient Civilizations

- 1. Ancient Egypt:** The ancient Egyptians were among the first to use plant-based substances for personal hygiene, including hair care. They utilized ingredients like honey, oils (such as castor and sesame), and herbs like henna for both cleansing and conditioning the hair. Henna was especially popular for its dyeing properties and its ability to nourish the scalp.
- 2. Ancient India:** India has a long tradition of using Ayurvedic medicine, which includes the use of herbs for a variety of purposes, including hair care. Herbs like **neem**, **amla** (Indian gooseberry), **bhringraj**, and **shikakai** were used for their nourishing, cleansing, and hair growth-promoting properties. Traditional Ayurvedic hair care often involved combining these herbs with natural oils to treat a variety of scalp and hair issues.
- 3. Ancient Greece and Rome:** Greek and Roman civilizations also used herbal remedies for hair care. They often mixed olive oil with herbs like rosemary, lavender, and thyme to cleanse and condition the hair. Greek physicians like Hippocrates wrote about the use of plant extracts for both medical and cosmetic purposes, and hair care was no exception.

Middle Ages and Renaissance

During the medieval period, the use of herbs for hair care continued, although the knowledge was often passed down through herbalists or within certain cultural traditions. People in Europe would use various concoctions of herbs such as rosemary, lavender, and chamomile to wash their hair, but the practice was less systematic than in earlier periods.

18th and 19th Centuries

In the 18th and 19th centuries, particularly in Europe, there was a growing interest in the natural sciences, which led to more systematic study and documentation of herbal ingredients for health and beauty. Herbal infusions and decoctions were popular for washing hair, although it wasn't until the late 1800s that commercial preparations of herbal shampoos began to appear.

Early 20th Century

The modern form of shampoo began to take shape in the early 20th century. In 1903, **Hans Schwarzkopf**, a German chemist, introduced the first solid shampoo, which was essentially a powdered form of soap. Later, liquid shampoos that were based on synthetic detergents were created in the 1930s. However, herbal shampoos began to gain popularity in the 1960s and 1970s, as part of a broader countercultural movement that embraced natural and organic products.

During the 1960s and 1970s, many consumers began to reject the chemical-laden products that were popular at the time, and herbal and natural alternatives started to emerge. Companies like **Kiehl's** and **Aveda** were among the first to offer shampoos made with plant-based ingredients such as lavender, rosemary, and eucalyptus. These early herbal shampoos were often marketed as more gentle on the scalp and hair, and as alternatives for people with sensitive skin or those who were concerned about the environmental impact of synthetic chemicals.

Late 20th Century to Present

From the 1980s onward, there has been a growing trend toward herbal and organic beauty products, driven by increasing consumer demand for products that are perceived as safer, more sustainable, and kinder to the environment. Herbal shampoos became increasingly mainstream as people sought alternatives to the traditional synthetic shampoos containing sulfates, parabens, and other chemicals.

The rise of the **natural and organic beauty movement** in the 2000s saw a proliferation of brands offering shampoos made with ingredients like **aloe vera, tea tree oil, argan oil, lavender, chamomile, and honey**. Many of these products emphasized the use of sustainably sourced and ethically harvested herbs and botanicals.

Today, herbal shampoos are widely available and cater to a range of hair care needs, from treating dandruff to promoting hair growth. In addition to classic herbal ingredients, the modern formulations often incorporate innovations such as **essential oils, plant extracts, and bio-based surfactants**, which are designed to clean the hair without stripping away its natural oils.

The Future of Herbal Shampoos

As consumer awareness grows around the environmental impact of beauty products, many brands are focusing on clean beauty, transparency, and sustainability in their herbal shampoo offerings. This includes the use of biodegradable ingredients, recyclable packaging, and cruelty-free practices.

The popularity of herbal shampoos shows no sign of waning, with the continued trend toward natural, organic, and eco-conscious products likely to keep driving innovation in the field of hair care.

Herbal shampoos represent a blend of traditional wisdom and modern science, offering an alternative to more synthetic hair care products while addressing consumers' desires for healthier, more natural beauty solutions.

CONCLUSION

Herbal shampoos are a growing category within the hair care market, prized for their natural ingredients and perceived gentleness on hair and scalp. They offer a wide range of benefits, from cleaning and dandruff control to hair strengthening and growth promotion. Whether using herbal shampoos to address specific hair concerns or simply for a natural alternative to conventional products, these formulations continue to gain popularity as consumers seek safer, more sustainable, and effective personal care options.

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