



PREPARATION AND EVALUATION OF HERBAL HAIR SHAMPOO

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ABSTRACT: The fact that shampoos are a ubiquitous cosmetic product used in daily life, the shampoo sector possesses the most unit's sales among every hair care product. Shampoo is one of the most important cosmetics since it helps clean the hair. The purest washing of the hair is no longer the goal of modern shampoo formulas. Herbal shampoo is a natural hair care solution that is used to remove grime, dandruff, and grease as well as to encourage hair growth, strength, and blackness. It is a harmless, chronic sickness that manifests as white, flaky dead skin that might show up in hair as well as their shoulders when the head of hair becomes oily or dry. The goal of the current study's objective is to formulate and assess an herbal anti-dandruff shampoo with natural ingredients, placing particular emphasis on its efficacy and safety.

Keywords: Herbal shampoo, Neem leaves, Aloe Vera, Hibiscus petals, Amla, Lemon juice, Evaluation of shampoo.

INTRODUCTION

Shampoo is a liquid or cream formulation of soap or detergent used to cleanse hair. Shampoo is a hair care product that is used to clean hair and normally comes in the form of a thick liquid. Shampoo is used to remove the undesirable build up from between the hairs without removing too much sebum and leaving the hair unmanageable. The most popular type of hair care is shampooing. Shampoos are typically used as cleaning agents for the hair and scalp. Even though herbal shampoo performs better and is safer than synthetic shampoo, it seems unlikely that customers will embrace it in the current environment. A more extreme strategy to spread the use of herbal shampoo would

be to alter customer expectations, placing more of a focus on safety and efficacy. The most popular products for cleaning our hair and scalp on a daily basis are likely herbal shampoos. Herbal shampoos are cosmetic products made with traditional ayurvedic herbs that are intended to clean the hair and scalp in the same way as ordinary shampoo. Most likely, shampoos are utilised as cosmetics. Shampoos, a thick mixture of detergents with the proper ingredients, are probably used as beautifying agents. Herbal cosmetics are becoming more popular and in demand, largely because it is thought that they are risk-free and have no negative side effects. They are employed to remove oils, dandruff, environmental pollutants, and other impurities. Herbal shampoos aim at providing essential nutrients to the hair and at the same time have a slight cleansing action to remove the hair's excess oil content. Shampoos, that are a sticky mixture of detergents with the right additions, preservatives, and active ingredients, are probably used as enhancing results.

Shampoo: Most likely serve as beautifying agents it is a hair care item that we use on a regular basis to clean the scalp and hair.



Fig.1. Herbal Shampoo

Ideal Properties of Herbal Shampoo:

1. Dust or soil, too much sebum or other fatty substances, and loose corneal cells from the hair should all be fully and properly removed.

2. It should generate a sufficient amount of foam to meet the user's psychological needs.
3. It should leave the hair at the very least non-dry, soft, and shiny with good manageability. Fly off.
4. It should give the hair a pleasant fragrance.

Advantages of Shampoo:

- Cleansing properties, improving hair hygiene.
- Treating scalp conditions, Treatment for dry scalp.
- Treatment for hair loss.
- Relieves itch and irritation.
- Repairs damaged hair and keeps hair silky or smooth.
- Keeps your hair beautiful and blossomed.

Problems Related To Hair:

- Dandruff
- Dry hair
- Split ends
- Oily hair
- Hair loss
- Heat damage
- Colour damage

Types of Shampoo:

1. Powder shampoo
2. Liquid shampoo
3. Cream shampoo
4. Jelly shampoo
5. Aerosol shampoo
6. Keratin shampoo
7. Volumizing shampoo

MATERIAL & METHOD:

Preparation of Extract:

Table 1: Preparation of extract

Ingredients	Quantity (100) ml	Uses	
Reetha extract	25g	Foaming agent	
Amla	15g	Nourishment to hair	
Shikakai powder	25g	Detergent	
Bringraj powder	25g	Hair growth	
Neem leaves	15g	Antibacterial	
Hibiscus petals	25g	Conditioning agents	
Aloe Vera	20g	Moisturizing agent	
Lemon juice	2ml	Preservatives	
Purified water	Q.S	Vehicle	

Procedure:

Weighed all the ingredients according to the formula. Decoction of Reetha (25g), Amla (15g), Shikakai (25g), Bringraj(25g), Neem leaves (15g) hibiscus(25g), Aloe Vera (20g), Lemon juice (2tbs). Filter it and collect filtrate. Mixed the above filtrate with constant stirring. Preservatives and perfumes was added lastly.

**Fig 2: Preparation of herbal extract**

Formulation table of herbal shampoo:-**Table 2: Formulation table for shampoo**

Ingredients	Quantity Given	Quantity Taken
Extract	100ml	90ml
Gelatin	Q.S	3gm
Carbomer	Q.S	4gm
Rose oil	Q.S	3ml

Preparation procedure:

The herbal shampoo was developed using the formula shown in the table. To the gelatine solution (10%), Added the herbal extract and mixed by shaking continuously at the time interval of 20 min. Add 10% Carbomer powder as for produce viscosity to the shampoo. 1 ml of lemon juice Was also added with constant stirring. A suitable volume of fragrance oil (rose oil) has been included in the preparation to enhance the aroma, and gelatine was added to bring the quantity up to 100 ml. After the preparation of shampoo stored in well close container.

**Fig 3: Formulation of herbal shampoo**

RESULT AND DISCUSSION:**Table 3: Evaluation parameters of herbal shampoo**

Sr. No.	Evaluation Test	Test
1	Color	Brown
2	Transparency	Clear
3	Odour	Good
4	Foam type	Small dense
5	Wetting time	120s

Evaluation of Herbal Shampoo:

- Skin irritation test: the freshly produced shampoo solution onto the skin, leaving it there for five minutes while looking for signs of skin redness and irritation; neither were present.
- Visual assessment-The prepared formulation was assessed for Color, clarity, odour, and froth content.
- pH determination- A pH analyzer was used to measure the pH of the prepared herbal shampoo in distilled water (10% v/v).
- Foam quality and retention: Time was kept track of after the shake test. For five minutes, I measured the foam volume at one-minute intervals.
- Visual stability: The visual stability of the produced shampoo was evaluated for 21 days at room temperature with relative humidity 65+_5, as well as for colour change and PH. Within 21 days, there were no changes to the shampoo's colour or PH, and there was no phase separation of the oil and water.

CONCLUSION

The aim of the current study was to develop an herbal shampoo that improves the growth of hair while minimizing hair loss and combing it is safer than chemical conditioning agents. In addition to being safer than chemical conditioning agents, the shampoo formulation also significantly reduced hair loss during combing and strengthened hair growth. The pH of the shampoo was adjusted to maintain the acidic mental of the scalp, and a physiochemical approach was used for formulation preservation to avoid the risk posed by chemical preservatives. Herbal shampoo will be more effective and safe than synthetic shampoo, and it will be well-liked by consumers. Utilizing

commonly used traditional plant extracts, we formulated an herbal shampoo. The major goal of this formulation was to create a stable and effective shampoo by using all of the components that were included in it. We can lessen shampoo's adverse effects by applying natural herbal extracts. The safety of herbal shampoo exceeds that of synthetic shampoo. Instead of synthetic ingredients, the current study uses Shikakai, Amla, and other plant extracts to provide the conditioning benefits. The onus is on formulators to influence consumers' perceptions of what makes a good shampoo.

FUTURE SCOPE

The promising herbal shampoo in this study can be exploited by commercially to increase the quality of formulation.

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