

A REVIEW ARTICLE ON: HERBAL SHAMPOO

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ABSTRACT-

The main object of this present study is to prepare and evaluate an herbal shampoo and determine physiochemical function that emphasizes on safety, efficacy and quality of the product Herbal Shampoo is the natural haircare product which is use to remove grease, dirt, dandruff and promote hair growth, strenthness and darkness of the hair. It is also provide softness, smoothness, and shiness for the hair. Various drugs are used for the preparation of cosmetics shampoo. Such drugs shows various side effects such as hair loss, increased scaling, scratching, discomfort, nausea and headache. Therefore an attempt is made to formulate herbal shampoo that is free from side effects.

KEYWORDS- Introduction materials and methods.

1 INTRODUCTION-

1.1 Hebal Shampoo-

Shampoos are probably the most widely used cosmetic products for cleansing hairs and scalp in our daily life[1]. Herbal shampoos are the cosmetic preparations that with the use of traditional ayurvedic herbs are meant for cleansing the hair and scalp just like the regular shampoo.They are used for removal of oils, dandruff, dirt, environmental pollutions etc.Herbal shampoo is a type of cosmetic preparation that uses herbs from plants as an alternative to the synthetic shampoo available in the market. The herbal shampoo is important, as people nowadays prefer herbal products than chemical ones for they proved to enhance

health. The awareness and need for cosmetics with herbs are on the rise, primarily because it is believed that these products are safe and free from side effects [2]

1.2 Need of Shampoo-

The skin on our head produce a greasy fluid called sebum. It is produced to protect the hair by coating itself all over the head. This give the hair a healthy shine but when secretes in large amount it makes the hair look dirty.

1.3 History-

Indian subcontinent

In the Indian subcontinent, a variety of herbs and their extracts have been used as shampoos since ancient times. A very effective early shampoo was made by boiling Sapindus with dried Indian gooseberry (amla) and a selection of other herbs, using the strained extract. Sapindus, also known as soapberries or soapnuts, a tropical tree widespread in India, is called ksuna[3].In ancient Indian texts and its fruit pulp contains saponins which are a natural surfactant. The extract of soapberries creates a lather which Indian texts called phenaka[4]. It leaves the hair soft, shiny and manageable. Other products used for hair cleansing were shikakai (Acacia concinna), hibiscus flowers,[5][6] ritha (Sapindus mukorossi) and arappu (Albizzia amara)[7].Guru Nanak, the founder and the first Guru of Sikhism, made references to soapberry tree and soap in the 16th century.[8]

Cleansing with hair and body massage (champu) during one's daily bath was an indulgence of early colonial traders in India. When they returned to Europe, they introduced the newly learned habits, including the hair treatment they called shampoo [9].

1.4 Ideal properties of Herbal Shampoo-

1. It should effectively and completely remove dust or soil, excessive sebum or other fatty substances and loose corneal cells from the hair.
2. It should produce a good amount of foam to satisfy the psychological requirements of user.
3. It should be easily removed on rinsing with water.
4. It should leave the hair non -dry, soft, lustrous with good manageability and minimum fly away.
5. It should impart a pleasant fragrance to the hair.
6. It should not cause any side-effects / irritation to skin or eye.
7. It should not make the hand rough and chapped.[10,11]

2 MATERIALS AND METHODS-

2.1 Preparation of extract

About 100 g of each powdered plant materials, namely Neem, Hibiscus flower, Aloe vera, Shikakae, Liquorice, Amla, Soap nut were homogenized. The powdered material was extracted with distilled water by boiling for 4 h. The extract of each plant material was separated and evaporated. Shown in table 1.

Sn	Drugs name	parts	quantity for 100 g
1.	Neem powder	Leaves	09%
2.	Hibiscus flower- powder	Flower	12%
3.	Aloe vera- powder	Leaves	07%
4.	Shikakae powder	Pods	22%
5.	Liquorice powder	Root	05%
6.	Amla powder	Fruit	25%
7	Soap Nut	Nut	20%

Table 1 -Extraction of Hebal drug

2.2 Formulation of herbal shampoo

Formulation of the herbal shampoo was done as per the formula given in Table 1. To the gelatin solution (10%), added the herbal extract and mixed by shaking continuously at the time interval of 20 min. 1 ml of lemon juice was also added with constant stirring. To improve aroma in the formulation, sufficient quantity of essential oil (rose oil) was added and made up the volume to 100 ml with gelatin.

Material required	Quantity	Medicinal use
Neem	0.5 g	Antibacterial agent
Soap nut extract	0.5 g	Foaming agent
Amla extract	0.5 g	Antidandruff agent
Shikakai extract	0.5 g	Detergent
Hibiscus	0.5 g	Conditioning agent
Bhringraj extract	0.5 g	Hair growth
Aloe vera	01 g	Moisturizing agent
Gelatin	q.s	Gelling agent
Lemon juice	q.s	Antimicrobial
Rose oil	q.s	Fragrance

Table 2 - Formulation of Herbal Shampoo

2.3 Evaluation of herbal shampoo

The prepared formulation was evaluated for product performance which includes organoleptic characters, pH, physicochemical characterization, and for solid content. To guarantee the nature of the items, particular

tests were performed for surface tension, foam volume, foam stability, and wetting time using standard protocol.

2.3.1 Visual assessment-The prepared formulation was assessed for color, clarity, odor, and froth content.

2.3.2 pH determination-The pH of the prepared herbal shampoo in distilled water (10% v/v) was evaluated by means of pH analyzer at room temperature [12].

2.3.3 Determination of solid content percentage-The percentage of solid substance was determined by weighing about 4 g of shampoo in a dry, clean, and evaporating dish. To confirm the items, particular tests were performed for surface tension, foam volume, foam stability, and wetting time using standard protocol.

2.3.4 Visual assessment-The prepared formulation was assessed for color, clarity, odor, and froth content.

2.3.5 pH determination-The pH of the prepared herbal shampoo in distilled water (10% v/v) was evaluated by means of pH analyzer at room temperature [12].

2.3.6 Determination of solid content percentage-The percentage of solid substance was determined by weighing about 4 g of shampoo in a dry, clean, and evaporating dish. To confirm the result, the procedure was repeated again. The liquid portion of the shampoo was evaporated in a dish by placing on hot plate. The percentage and the weight of the solid contents present in the shampoo were calculated after drying completely [13].

2.3.7 Surface tension measurement-The prepared shampoo in distilled water (10% w/v) was evaluated for surface tension using stalagmometer in room temperature [14].

2.3.8 Testing of wetting-Wetting time was calculated by noting the time required by the canvas paper to sink completely [3]. A canvas paper weighing 0.44 g was cut into a disc of diameter measuring 1-inch. Over the shampoo (1% v/v) surface, the canvas paper disc was kept and the time taken for the paper to sink was measured using the stopwatch.

2.3.9 Foam stability test-The stability of the foam was determined using cylinder shake method. About 50 ml of formulated shampoo (1%) solution was taken in a graduated cylinder of 250 ml capacity and shaken for 10 times vigorously. Foam stability was measured by recording the foam volume of shake test after 1 min and 4 min, respectively [15]. The total foam volume was measured after 1 min of shaking.

2.3.10 Dirt dispersion test-To 10 ml of refined water two drops of cleanser were included and taken in a wide-mouthed test tube. To the formulated shampoo, added one drop of Indian ink and shaken for 10 min after closing the test tube with a stopper. The volume of ink in the froth was measured and the result was graded in terms of none, slight, medium, or heavy [16]

2.3.11 Conditioning performance evaluation-An artificial hair tress of Indian women was received from a salon and divided into two swatches of length 10 cm approximately, weighing 5 g. The control swatch was the one without washing and the test swatch using the formulated shampoo was washed with. Each tress was added for 2 min to the combination of shampoo in water in the proportion 10:15 taken in a conical flask and washed using 50 ml of distilled water. Each tress was air dried at room temperature and the procedure was repeated for maximum of 10 times. The conditioning effect of the prepared shampoo in terms of softness and smoothness was determined using a blind touch test using volunteers of student 20 numbers selected randomly [17]. The conditioning performance of the shampoo was rated in terms of Score 1–4 (4 - excellent, 3 - good, 2 - satisfactory, and 1 - poor) by asking all the selected students to touch the tress washed with prepared shampoo.

3.RESULT-

The shampoo was formulated by admixing the equal amount of the aqueous extracts of all the ingredients with soapnut (Table 1). The above plant extract contains phytoconstituents like saponins which is a natural surfactant having detergent property and foaming property. An ideal shampoo must have adequate viscosity and many natural substances

possess good viscosity. The gelatin solution (10%) behaves as a pseudoplastic forming clear solutions. Lemon juice (1 ml) added to the shampoo serves as anti-dandruff agent, natural antioxidant, and chelating agent and maintains the acidic pH in the formulation

4.CONCLUSION-

The present study was point out with the object of preparing the herbal shampoo that reduces hair loss promote growth and strength of hair . Herbal shampoo was formulated with the aqueous extract of medicinal plants that are commonly used for cleansing hair traditionally. Use of conditioning agents (synthetic) reduces the protein or hair loss. To provide the effective conditioning effects, the present study involves the use of shikakai, amla, and other plant extracts instead of synthetic .

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