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Research Article

A comprehensive review on herbal shampoo

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ABSTRACT

Shampooing is the most common form of hair treatment. Shampoo is one of the cosmetic type product using for remove dirt and skin derbis from hair. Currently shampoo is not only used to cleanse dirt on the hair and prevent hair loss. 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. Various drugs are used for the preparation of cosmetics shampoo. Such drugs shows 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. The herbal shampoos is important, as people nowadays prefer herbal products than chemical ones for they proved to enhance health. A more radical approach in popularizing herbal shampoo would to be change the consumers expectations from a shampoo, with emphasis on safety and efficacy.

Keywords: Shampoo, Herbal shampoo, Hair growth, cosmetics, natural.

INTRODUCTION

" Shampoo is the cleansing preparation of the hair and scalp". Shampoos are most probably used as cosmetics. It is a hair care product that is used for cleaning scalp and hair in our daily life. Shampoos are most likely utilized as beautifying agents and are a viscous solution of detergents containing suitable additives preservatives and active ingredients. It is usually applied on wet hair, massaging into the hair, and cleansed by rinsing with water. The purpose of using shampoo is to remove dirt that is build up on the hair without stripping out much of the sebum. Many synthetic shampoos are present in the current market both medicated and nonmedicated; however, herbal shampoo popularized

due to natural origin which is safer, increases consumer demand and free from side effects.

In synthetic shampoos, surfactants (synthetic) are added mainly for their cleansing and foaming property, but the continuous use of these surfactants leads to serious effects such as eye irritation, scalp irritation, loss of hair, and dryness of hairs. Alternative to synthetic shampoo we can use shampoos containing natural herbals. However, formulating cosmetic products containing only natural substances are very difficult. There are a number of medicinal plants with potential effects on hair used traditionally over years around the world and are incorporated in shampoo formulation. These medicinal plants may be used in extracts form, their powdered form,

crude form, or their derivatives. To develop a shampoo containing an only one natural substance which would be safer with milder effect, then the synthetic shampoo is difficult and also it should possess good foaming, detergency, and solid content as such synthetic shampoo. Hence, we considered in detailing an unadulterated natural cleanser utilizing conventional technique using regularly utilized plant material for hair washing.

A shampoo is basically a solution of a detergent containing suitable additives for other benefits such as hair conditioning enhancement, lubrication, medication etc. Now-a-days many synthetic, herbal, medicated and non medicated shampoos are available in the market but popularity of herbal shampoo among consumers is on ties because of their belief that these products being of natural origin are safe and free from side effects.

HERBAL SHAMPOO

Shampoos are probably the most widely used cosmetic products for cleansing hairs and scalp in our daily life. 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, primary because it is believed that these products are safe and free from side effects.

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 secrets in large amount it makes the hair look dirty.

IDEAL PROPERTIES OF HERBAL SHAMPOOS

It should effectively and completely remove dust or soil, excessive sebum or other fatty substances and loose corneal cells from the hair.

It should produce a good amount of foam to satisfy the physiological requirements of user.

It should be easily removed on rinsing with water.

It should leave the hair non-dry, soft, lustrous with good manageability and minimum fly away.

It should impart a pleasant fragrance to the hair.

It should not cause any side-effects/ irritation to skin or eye.

It should not make the hand rough and chapped.

BENEFITS OF HERBAL SHAMPOO

- More shine
- Less hair loss
- Long lasting colour
- Stronger and more fortified hairs
- All natural, no chemicals
- Keep healthy natural oils
- Wont irritate skin or scalp

FUNCTIONS OF HERBAL SHAMPOO

- Lubrication
- Conditioning
- Hair growth
- Maintenance of hair colour
- Medication

DESIRED PROPERTIES OF HERBAL SHAMPOI

- Ease of application
- Removal of more debris
- Easy wet combing
- Fragrance
- Low level of irritation
- Well preserved
- Good stability

ADVANTAGES OF HERBAL SHAMPOO

- Pure and organic ingredients.
- Free from side effects
- No surfactants eg: SLS
- No synthetic additives
- No animal testing
- Earth and skin friendly
- No petroleum based ingredients.

EVALUATION OF HERBAL SHAMPOO

To evaluate the prepared formulations, quality control tests including visual assessment and physicochemical controls such as pH, density and viscosity were performed. Also, to assure the quality of products, specific tests for shampoo formulations including the determination of dry residue and moisture content, total surfactant activity, salt content, surface tension, thermal and mechanical stability and detergency tests were carried out. The results were compared with marketed formulations.

PHYSICAL APPEARANCE/VISUAL INSPECTION

All samples were observed for their physical appearance/visual inspection. The prepared formulations were evaluated in terms of their clarity, foam producing ability and fluidity.

DETERMINATION OF PH

The pH of 10% shampoo solution in distilled water was determined at room temperature 25°C3.

DETERMINE PERCENT OF SOLIDS CONTENTS

A clean dry evaporating dish was weighed and added 4 grams of shampoo to the evaporating dish. The dish and shampoo was weighed. The exact weight of the shampoo was calculated only and put the evaporating dish with shampoo was placed on the hot plate until the liquid portion was evaporated. The weight of the shampoo only (solids) after drying was calculated.

RHEOLOGICAL EVALUATIONS

The viscosity of the shampoos was determined by using Brookfield Viscometer (Model DV-1 Plus, LV, USA) set at different spindle speeds from 0.3 to 10 rpm. The viscosity of the shampoos was measured by using spindle T95. The temperature and sample container's size was kept constants during the study.

DIRT DISPERSION

Two drops of shampoo were added in a large test tube contain 10 ml of distilled water. 1 drop of India ink was added; the test tube was stoppered and shakes it ten times. The amount of ink in the foam was estimated as None, Light, Moderate, or Heavy.

CLEANING ACTION

5 grams of wool yarn were placed in grease, after that it was placed in 200 ml. Of water containing 1 gram of shampoo in a flask. Temperature of water was maintained at 35°C. The flask was shaken for 4 minutes at the rate of 50 times a minute. The solution was removed and sample was taken out, dried and weighed.

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STABILITY STUDIES

The thermal stability of formulations was studied by placing in glass tubes and they were placed in a humidity chamber at 45°C and 75% relative humidity. Their appearance and physical stability were inspected for a period of 3 months at interval of one method.

DETERGENCY ABILITY

The Thompson method was used to evaluate the detergency ability of the samples. Briefly, a crumple of hair was washed with a 5% sodium lauryl sulphate (SLS) solution, then dried and divided into 3g weight groups. The samples were suspended in a hexane solution containing 10% artificial sebum and the mixture was shaken for 15 minutes at room temperature. Then samples were removed, the solvent was evaporated at room temperature and their sebum content determined. In the next step, each sample was divided into two equal parts, one washed with 0.1 ml of the 10% test shampoo and the other considered as the negative control. After drying, the residual sebum on samples was extracted with 20 ml n-hexane and re-weighed. Finally, the percentage of detergency power was calculated using the following equation: $DP = 100(T/C)$ In which, DP is the percentage of detergency power, C is the weight of sebum in the control sample and T is the weight of sebum in the test sample 3, 4.

FOAMING ABILITY AND FOAM STABILITY

Cylinder shake method was used for determining foaming ability. 50ml of the 1% shampoo solution was put into a 250 ml graduated cylinder and covered the cylinder with hand and shaken for 10 times. The total volumes of the foam contents after 1-minute shaking were recorded. The foam volume was calculated only immediately after shaking the volume of foam at 1 minute intervals for 4 minutes were recorded.

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