



POLYHERBAL SHAMPOO POWDER

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ABSTRACT

The shampoo sector is probably the largest unit sale among the hair care products since shampoos are one of the cosmetic products used in daily life. Synthetic preservatives and detergents have sometimes been the cause of adverse effects among consumer. A more radical approach in reducing the synthetic ingredients is by incorporating natural extracts whose functionality is comparable with their synthetic ingredients. A shampoo is a cleaning aid for the hair and is counted among the foremost beauty products. Today's shampoo formulations are beyond the stage of pure cleaning of the hair. Additional benefits are expected, e.g. conditioning, smoothing of the hair surface, good health of hair, e.g. hair free of dandruff, dirt, grease and lice and, above all, its safety benefits are expected. As the scalp is one of the most absorbent part of the body, product applied to the scalp go directly to the blood, without being filtered in any way. Formulation of shampoo must be safe and efficient for long use. The major objective of the present study was to formulate an herbal shampoo powder by means of eliminating harmful synthetic ingredients and substitutes them with natural ingredients. Our formulated herbal shampoo powder consists of fenugreek, hibiscus, ashwagandha, shikakai, amla, neem, reetha, cinnamon, kalonji, and rose petals in appropriate ratio.

KEYWORDS - Herbal shampoo powder, Organoleptic properties, Formulation and evaluation methods

1.INTRODUCTION

Hair-care products may be defined as the preparation which are meant for cleansing, modifying the texture, changing of the colour, giving life to the stressed hair, providing nourishment to the hair and giving the healthy look to the hair.

Shampoo:

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.^[1,5,6,10,13,14,16,23]

History:

Shampoo originally meant head massage in several North Indian languages. Both the word and the concept were introduced to Britain from colonial India. The word *shampoo* in English is derived from Hindi *chāmpo* (Its English usage in Anglo-Indian dates to 1762. In India the term *champow* was used for head massage, usually with some form of hair oil.

The term and service was introduced in Britain by a Bengali entrepreneur, Sake Dean Mahomed in 1814, when Dean, together with his Irish wife, opened a shampooing bath known as 'Mahomed's Indian Vapour Baths' in Brighton, England. His baths were like Turkish baths where clients received an Indian treatment of champi (shampooing) or therapeutic massage. His service was appreciated; he received the high accolade of being appointed 'Shampooing Surgeon' to both George IV and William IV.

Modern shampoo as it is known today was first introduced in the 1930s with *Drene*, the first synthetic (non soap) shampoo.

In India, the traditional hair massage is still common. Different oils and formulations with herbs may be used; these include neem, shikakai or soapnut, henna, bael, brahmi, fenugreek, buttermilk, amla, aloe, and almond in combination with some aromatic components like sandalwood, jasmine, turmeric, rose, and musk

How shampoo works:

Shampoo cleans by stripping sebum from the hair. Sebum is an oil secreted by hair follicles that is readily absorbed by the strands of hair, and forms a protective layer. Sebum protects the protein structure of hair from damage, but this protection comes at a cost. It tends to collect dirt, styling products and scalp flakes. Surfactants strip the sebum from the hair shafts and thereby remove the dirt attached to it.

While both soaps and shampoos contain surfactants, soap bonds to oils with such affinity that it removes too much if used on hair. Shampoo uses a different class of surfactants balanced to avoid removing too much oil from the hair.

Ideal characteristics of Shampoo:

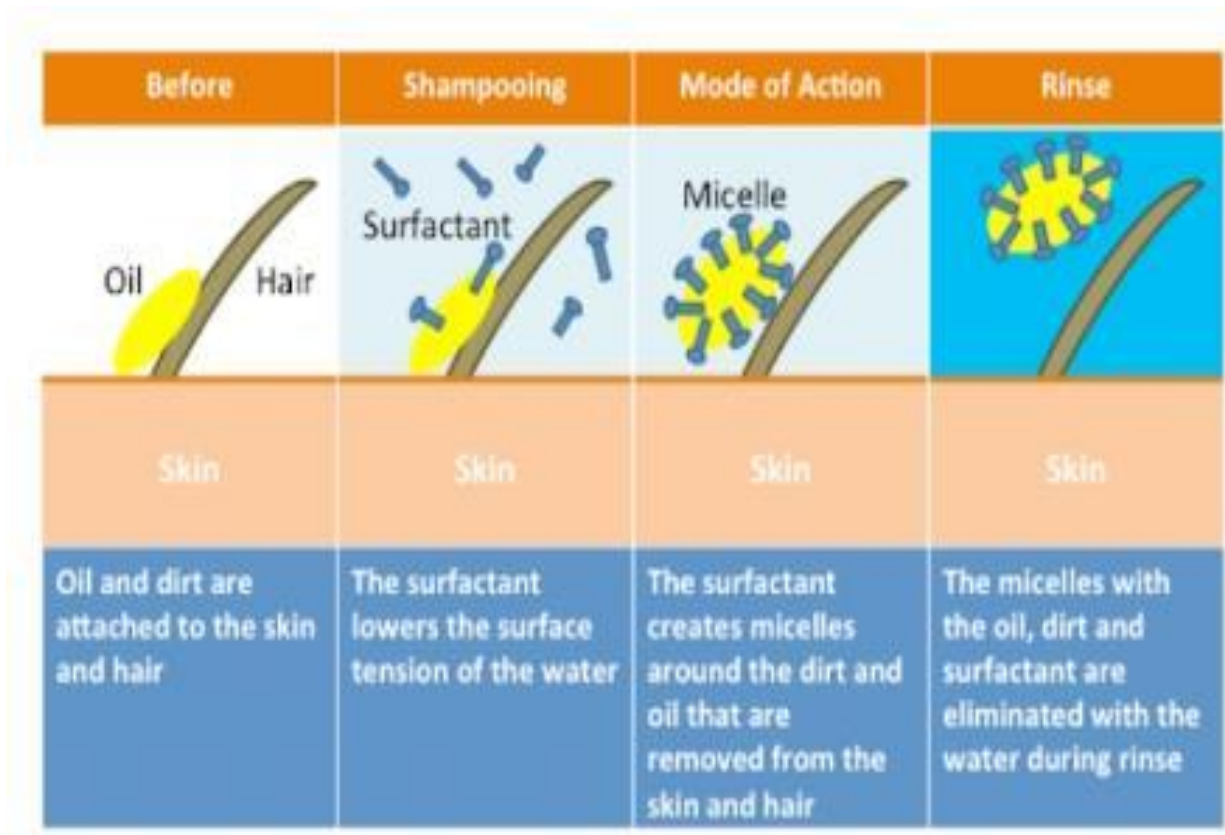
Shampoo formulations seek to maximize the following qualities:

1. Easy rinsing
2. Good finish after washing hair
4. No damage to hair

Types of Shampoo

According to the nature of the product the shampoo products can be classified as follow.

1. Powder shampoos
2. Clear liquid shampoos
3. Liquid cream or lotion shampoos
4. Oil shampoos
5. Miscellaneous including anti-dandruff medicated shampoo^[24]



Benefits of Herbal Shampoo^[14]

1. More shine
2. Less hair loss
3. Long lasting color
4. Stronger and more fortified hairs
5. All natural, no chemicals

There can be some ailments to the normal health of hair and can cause trouble ailments like dandruff, hair loss.

Dandruff :

Dandruff represents one of the most common dermatological skin conditions and is a chronic, non-inflammatory condition of the scalp that is characterized by excessive scaling of scalp tissue. Dandruff affects 5% of the population and mostly occurs after puberty, between 20 and 30 years and dandruff affects males more than females. ^[9] Dandruff is a common scalp disorder, characterized by presence of corneocytes that form clusters due to their high cohesive power, in the form of flaky white to yellowish scales, accompanied by itching .

Signs and symptoms:

1. Itchy scalp
2. Flakiness
3. Red and greasy patches of skin
4. Tingly feeling on the skin

Causes of Dandruff

*Microbial

- 1] Fungal
- 2] Bacterial

* Non Microbial

- 1] Dry scalp.
- 2] Oily or irritated skin

Treatment

Dandruff is known to be controlled by fungistatic ingredients in Anti-dandruff shampoos. *herbal shampoo* have growing demand in the world market. The natural remedies are more acceptable in market because its safe and fewer side effect antidandruff shampoo and nutritional shampoo containing vitamin, amino acids ,proteins hydrolysate . Synthetic and *herbal shampoo* both are having antidandruff action. But, synthetic shampoo contain cationic, anionic and non anionic surfactant mix in these surfactant having good foaming character but its toxic and caused irritation of eye.^[7] A herbal antidandruff shampoo can be formulated which is not only equal to the conventional shampoo in its consistency but also has better health, efficacy and purity.

Hair loss:

Although hair loss is not a serious problem for general health, it I a matter of concern because it can lower self-confidence and create feelings of inferiority. 70-100 hairs loss a day is very common however, dropping over 100 hairs a day lasting longer than a couple of week indicates a serious problem.^[29] In general, patients with alopecia have a higher incidence of psychiatric disorders such as depression, anxiety, and social phobia compared to the rest of the population.

Cause of Hairloss;

Androgenetic alopecia (AGA) is more prevalent in men, it is a widespread dermatological problem that also affects women. Up to 30%, 50%, and 80% of the men affected are over the ages of 30, 50, and 80 respectively. Androgens play an important role that appears to be independent from genetic pre disposition, which is considered the main etiologic factor in AGA

Other Cause of Hair Loss :

- 1.Acute illness
- 2.Poor blood circulation
3. Poor diet or malnutrition
4. Prescription drugs
5. Psychological
6. Radiation exposure
7. Ringworm
8. Skin disease Stress
9. Sudden weight loss
10. Surgery

Treatment

Herbal shampoo and solution containing a mixture herbal extracts (HE) with antiandrogenic, anti-inflammatory, and anti oxidative features. Our hypothesis was that, if there is a high enough concentration of relevant flavonoids, vitamins, and trace elements at the site of action (i.e., hair follicles), then inflammatory and aging processes can be slowed down and reversed to a certain extent. This study was performed to assess the efficacy, safety, and synergy of the new cosmetic herbal shampoo and solution for treatment of AGAor TE.

MATERIALS :

Herbal shampoo powders were accurately weighed, passed through sieve, prepared by mixing in their ascending order of quantities with continuous trituration, stored in air tight containers and used for further studies. Formulation is subjected to organoleptic studies, general powder characteristics, physicochemical evaluation, ash value, moisture content determination, pH determination, cleaning action, foaming index, dirt dispersion, wetting time ,etc

INGREDIENTS:

Amla

- Synonyms:Indian gooseberry, Emblicmyrobalan.
- BiologicalSource : Amla consists of the fresh or dried fruit of *Emblicaofficinalis*Gaertn. (syn. *Phyllanthus emblica* Linn)
- Family: Euphorbiaceae.
- Chemical constituents: ellagic acid, chebulinic acid, gallic acid
- Uses: used for hair growth, antidandruff, hair darkening ,reduce hair loss. [29, 31]



Ashwagandha

- Synonyms: Withania root.Ashwagandha, Clustered Wintercherry.
- BiologicalSource: It consists of the dried roots and stem bases of *Withaniasomnifera*Dunal,
- Family: Solanaceae.
- Chemical constituent : alkaloids (isopelletierine, anaferine, cuseohygrine, anahygrine, etc.),
- Uses : Improves circulation



Cinnamon

- Synonyms:Cortex cinnamoni, Ceylon cinnamon, Saigon cinnamon, Chinese cassia, Cinnamomum aromaticum, Cinnamomumlaurus.
- BiologicalSource: Cinnamonis the dried inner bark of the coppiced shoots of *Cinnamomum zeylanicum*Nees.,
- Family: Lauraceae
- Chemical constituent : cinnamaldehyde, cinnamate, cinnamic acid, and numerous essential oils.
- Uses: lice treatment , hairgrowth promoter, reduce hair loss, antifungal



Kalonji

- Synonyms:Small Fennel, NigellaSeed, Black Cumin, Fitch (Biblical).
- BiologicalSource: It consists of seeds of *Nigella sativa* Linn
- Family: Ranunculaceae.
- Chemical constituent : crude fibers, amino acids, iron, sodium, calcium, and potassium, & Vitamin contain Vitamin A, Vitamin B, Vitamin B12, Niacin, and Vitamin C.
- Uses: Improves scalp health, reduce dryness, improvesblood circulation, promote hairgrowth , prevent premature graying, reduce hairfall



Neem

- Synonym:Neem, Margosa, Azadirachta.
- BiologicalSource: Neem consists of almost all parts of the plantwhich are used as drug. Some important morphologicalparts are the dried stem bark, root bark, leavesand fruits of*Azadirachta indica* also, known as *Melia azadirachta*.
- Family:Meliaceae.
- Chemical constituent : azadirachtin, nimbolinin, nimbin, nimbidin, nimbidol, sodium nimbinat, gedunin, salannin, and quercetin.
- Uses: Antiseptic, antibacterial



Methi

- Synonyms: Fenugreek, Greek hay.
- Biological Source: It consists of dried seeds of *Trigonella foenum-graecum*Linn.
- Family: Fabaceae.
- Chemical constituent : carbohydrates, proteins, lipids, alkaloids, flavonoids, fibers, saponins, steroidal saponins, vitamins, and minerals, nitrogen compounds.
- Uses: Cleaning, softening and shining of Hairs.



2.SCOPE OF PROJECT:

Many people suffer from hair disorders such as dandruff, alopecia, and dermatitis. Shampooing is the best treatment for these types of disorders. The awareness and need for cosmetics with the herb is on the rise, as it is strongly believed that these products are safe and free from side effect. Herbalbased powder shampoos are more effective in terms of safety and ease of manufacturing and From an economic point of view.

3.CONCLUSION:

The world market is also moving towards herbal medicines for health care, health foods and for cosmetic purposes including hair preparations. India is rich heritage

for cultivation and production of herbal medicines due to its diversified climatic conditions.

Present study is to successful preparing *herbal shampoo* containing herbal extract which is traditionally used for hair cleansing in India. All the ingredients used for the preparation of *herbal shampoo* are safer than marketed commercial *herbal shampoos*.

Formulated herbal shampoo include not only, cleaning but also includes basic scalp treatments eg. Kalonji: improves scalp blood circulation and promote hair growth, Cinnamon: help in prevention from lice and fungus, shikakai shows antidandruff property and neem: includes the antibacterial and antimicrobial effect

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