



Herbal powder shampoo : A general review

Aditi Bhausahab salve¹ Manisha Kundalik Kachare² Amol Balasaheb Chavan³

Mayur mansaram patil⁴ Asis.Proff.Manoj Laxman Chaudhari⁵

Colege of pharmacy Mrs,Saraswati wani college of pharmacy, Ganegaon Rahuri, Ahmadnagar, Maharashtra

India

Abstract :-

This study aim to develop and assess herbal shampoo powder that uses natural ingredients, with a focus on efficacy and safety. It removes debris and dandruff, encourages hair development and shine, darkens and fortifies hair of all the hair care products, shampoo is most likely the most popular. Given that human hair is a unique and treasured trait, shampoos are among the cosmetics used on a daily basis. Hair care products are further defined as preparations intended for cleaning, altering the texture, changing the color, revitalizing stressed hair, nourishing the tresses, and enhancing the appearance of well-groomed hair. Fans of specialty shampoos include those with gluten intolerance, color-treated hair, and dandruff. Allergies to wheat, a focus on using organic products, and baby shampoo for infants and young children may be less irritating. Additionally, there are animal-specific shampoos available that include pesticides or other drugs to treat parasite infestations or skin diseases. Pests such as fleas. Given that the chosen medications have been used for a considerable amount of time, either alone or in combination, the current studies will also aid in the establishment of standard formulation and evaluation parameters, which will undoubtedly aid in the standardization of the quality and purity of these kinds of powdered herbal shampoos.(1)

KEYWORDS: Herbal powder shampoo, Evaluation, Anti-dandruff, Standardization.

Introduction :-

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. Shampoos are may be the most widely used the cosmetic product for cleansing hairs and scalp in your daily life. A shampoo is basically a solution of a derergent containing suitable additives for other

benefits such as hair conditioning, lubrication, medication etc . Nowadays many synthetic, herbal , medicated and non-medicated shampoos are available in the market [Ishii – 1997] . But popularity of the herbal shampoos among consumers is on rise because of the there belief . The herbal shampoos are shafe and free from side effect . Herbal shampoos is widely unstable product over the world it has been used form many years .chemical herbal shampoos are preprepared with several chemicals which can care hairs problems but also responsible for damage of hairs. Some international researchaly said that the chemicals of herbal shampoos also responsible for cancer herbal shampoos are defined as prepreparation of a surfactant in suitable form liquid , solid or powder wich when used under the condition specified will remove surface grease , dirt & skin debries from the hair shaft & scalp [Arora.P-2011] . Herbal shampoos have so many types are powder , liquid, lotion , cream ,jelly,aerosol and specialized herbal shampoos (conditioning , antidandruff) . Herbal shampoos contain all the natural ingredients with herb extract . It helps hair to improve their quality of moisture , growth ,thickening , strength of hair roots. The most important thin is that herbal shampoos has no any side effect . The herbal shampoos are better in performance &safer than the synthetic shampoos herbal shampoos are totally natural no any other ab delhi.bohot dur chemical are added . herbal shampoos won't irritate the skin or scalp .By using herbal shampoos we can prevent the hair loss Hairs are the integral part of human beauty .people are using herbs for clansing ,beautifying &managing hair since ancient era .The large amount of people used herbal product which are less expensive and have less side effects. as for as ancient time people used natural extract and resources for heath care and cosmetic purposes [Sanskrit.L-1872] .They are large number of medicinal plant which are beneficially effect on hair and are commanlly used in formulatiom of shampoos . These plant product may used in there powder form,crude form , purified extract or derivate form .Herbal shampoos are used to promote hair growth by naturally stimulating the hair follicales. Herbal shampoos are enviromentaly friendly as they contain bio-dregredable materials rather than harsh chemicals.Herbal shampoos are shafe because it contain all natural ingredients it is non-allergic product with make it suitable for all skin type including sensitive & allergy prone skin [Virginia.S.2007] . The selection of active ingredients for hair care powders is based on the ability of the ingredient to prevent skin damage as well as to improve the quality of skin by cleansing, nourishing and protecting the skin.

Hair anatomy :-

The part of the hair that extends deep below the surface and occasionally into the subcutaneous layer is called the root.

There are three concentric layers in both the root and the shaft.

Medulla - It is located in the middle of the shaft and is primarily seen in thick hair. It is made up of two or threerows of polyhedral cells with air gaps and pigment granules.

Cortex - It forms the main portion of the shaft and is situated on the periphery of the medulla. It composed of long cells that cover the pigment granulesin dark hair and the air in white hair.

Cuticle – It is the outermost layer of hair and is made up of a single layer of thin, flat, highly keratinized cells.(10,11)

STRUCTURE OF THE HAIR

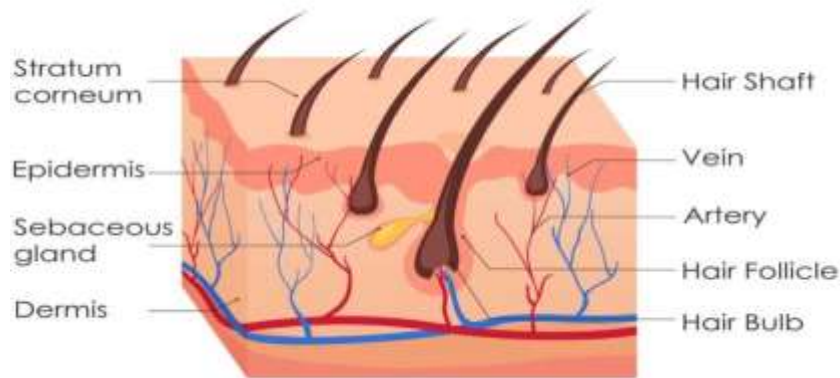


Fig :- 1.1 Structure of hair anatomy

In this way, a single hair on your head grows at a fee of about 1 cm per month The shade of the hair is decided by means of the quantity of melanin in the hardened cells. This can fluctuate a lot from character to person, and it adjustments over the direction of a lifetime. The quantity of melanin typically decreases as human beings get older, and greater air receives trapped inner the hair – itthen loses its color and turns white. Depending on someone's authentic hair shade and the variety of white hairs that develop ,the hair on their on their head then turns grey or white.

Parts of Hair :-

1. Dermal papillae - The androgen receptors that make up the dermal papilla are sensitive to the DHT and are in charge of controlling the hair cycle and growth.
2. Matrix -All of the active cellsrequired for hair growth and the development of various hair components, including
3. the outer, inner and hair shaft sheaths , are found in the matrix,which envelops the dermal papillae.The hair bulb is composed of the dermal papillae and the matrix.
4. Outer root sheath - The outermost and keratinized portion of the hair is called the trichelemma, or outer root sheath. It forms an entrance for the hair follicles to the surface from after covering the entire follicle inside the dermis and passing through the epidermis.
5. Inner root sheath - The cuticle, Huxley's layer and Henley's layer make up the inner root sheath. In order to stabilise the hair, the Henley's and Huxley's layer are capsular layer that anchor one another. The cuticle, the deepest layer that is closest to the hairshaft, is composed of dead, hardened cellsthat provide further protection for the hair shaft. This holds the hair in place and permits it to grow longer, along with capsular layer that comprise the Henley's and Huxley's layer.
6. Hair shaft - The only portion of the hair follicle that fully emerges from the skin's surface is known as the hair shaft. The medulla, cortex and cuticle are the three layer that make up the hair shaft. The medulla which is not lways present, is defined as an unorganised and disorders region found in innermost section of the hair shaft. Unlike the medulla, the cortex is extremely ordered and structured. The keratin that makes up the cortex is what gives hair it's resilience, strength and capacity to the absorb water. The amount, distribution, and kinds of melanin granules present invcortex, which also contain meaning, determine the colour of hair. The internal root

sheath is linked to the cuticle, which is the outermost layer of protection for hair. Hair repels water thanks to a complicated structure that includes a single lipid molecule layer.(12,13)

Physiology of hair :-

Anagen (growth phase): The majority of hair grows at all times. Every hair goes through several years of this stage.

Catagen (transitional phase): A few weeks after the hair follicle shrinks and the rate of hair growth slows down.

Telogen (resting phase): The old hair separates from the hair follicle and hair development ceases over a period of

months. The growth phase of a new hair starts, pushing out the old hair.(12,13,14)



Fig 1.2 Hair Growth Cycle

Hair Growth -

Human scalp hair typically grows between 0.3 and 0.5 millimeters (mm) every day. The top of the head, which extends one inch above the ear, is home to over 1000000 hair follicles in a healthy scalp. It is thought to have up to 200,000 hair follicles by workers. The majority of hair is composed of the cortex, a tough, highly populated cell found in Indians. Orthocortex is essentially absent from Chinese and Japanese straight hair, although it is clearly seen in a band on Black hair that is crimped.

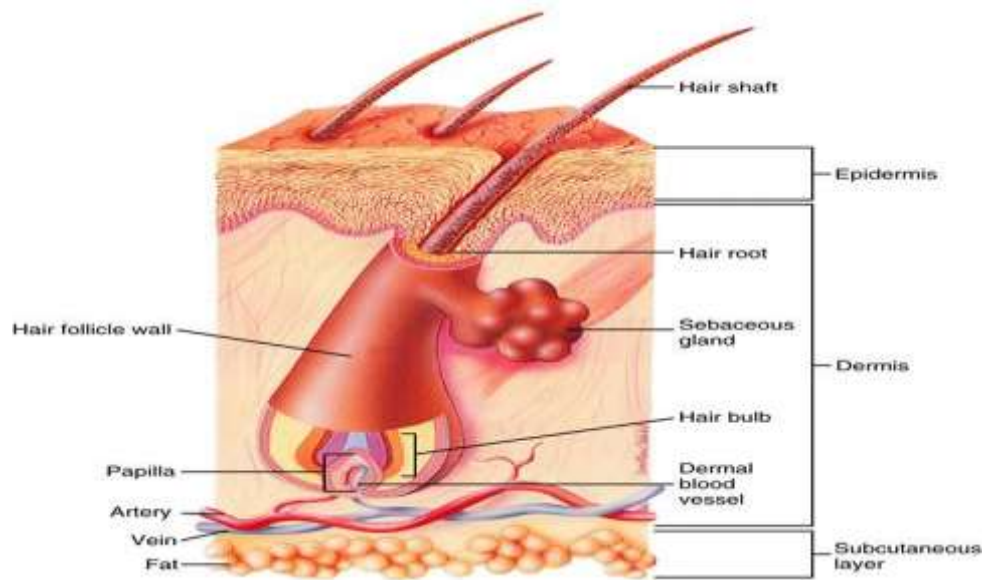


Fig :- 1.3 Human Hair Growth

More specifically, hair care products are preparations meant to clean, modify the texture, change the color, improve stressed hair, nourish the tresses, and improve the overall appearance of the hair. Specialty shampoos are targeted for those with color-treated hair, dandruff, Allergies to gluten or wheat, a focus on using organic products, and baby shampoo for babies and young children may be less irritating. Additionally, there are animal-specific shampoos that include pesticides or other drugs to treat skin disorders or parasite infestations like fleas. Shampoo is a thick, viscous liquid that is created by mixing a co-surfactant, usually cocamidopropyl betaine, with a surfactant, usually sodium lauryl sulfate, in water. Preservative, aroma, and salt (sodium chloride), which is used to regulate the viscosity, are other crucial ingredients. Additional ingredients are typically added to shampoo formulations in order to optimize the following functions: delightful lather, light cleansing, and minimal skin and eye irritation, a thick or creamy feeling, a pleasing scent, minimal toxicity, good biodegradability, a pH of just 7, moderate acidity, no damage to hair, and the ability to heal hair damage already done.(14,15)

How shampoo work :-

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.

The chemical mechanisms that underlie hair cleansing are similar to that of traditional soap. Undamaged hair has a hydrophobic surface to which skin lipids such as sebum stick, but water is initially repelled. The lipids donor comes off easily when the hair is rinsed with plain water. The anionic surfactants substantially reduce the interfacial surface tension and allow for the removal of the sebum from the hair shaft. The non-polar oily materials on the hair shaft are solubilized into the surfactant micelle structures of the shampoo and are removed during rinsing.



Fig :- 1.4 Process of hair growth

Hair problem :-

The scaly particles that cling to the root of the hair is dandruff which is caused by poor diet, dry scalp, infection, excess sebum, and sensitivity to certain products. It is a harmless, non-inflammatory skin condition that affects the scalp and can lead to hair loss. Naturally, apple cider vinegar is a quick fix to help to relieve dandruff as it contains anti-inflammatory and anti-bacterial properties. Coconut oil, tea tree oil, adding omega 3- fatty acids also help large extent to relieve dandruff

- 1. Hair loss:** - Hair loss occurs due to several factors such as stress, hormonal imbalance, and using the wrong products. Prevention is possible by using protein- rich food, switching to mild shampoos, massage with hot oil, staying hydrated, and exercise regularly.
- 2. Dry hair :** - It is due to deficiency of protein, sometimes other underlying issues such as menopause, birth control pill, pregnancy, hormonal imbalance, anemia, and hyperthyroidism can also cause dry hair. Omega 3 and 6 fatty acid- rich food can replenish the hair luster.
- 3. Oily scalp:** - Of the many reasons like poor diet, genetics, or hormonal changes, the biggest culprit of an oily scalp is overwashing. Ingredients like lactic acid help to regulate the production of oil.
- 4. Hair colour damage:** - Regular coloring sessions can damage the hair in the long run. The chemicals in the dye can also cause dryness, dandruff, breakage, and split ends. Medicated shampoos. extra care, conditioning, and nourishing can treat the hair
- 5. Split ends:** - When the oil from the scalp doesn't reach the ends of the hair, it tends to dry and split over time and another reason is heat worse the ends. Applying a dash of oil on the ends can avoid split ends.
- 6. Dull hair / Heat damaged hair:** - It's tempting to turn the temperature of the straightener to high temperatures i.e, 450 degrees Celcius to get perfectly straight hair. The temperature can burn hair, cuticle and cause breakage.

Conclusion :-

herbal powder shampoo is a highly effective and sustainable hair care solution that offers numerous benefits for hair and scalp health. This shampoo powder has demonstrated exceptional results in promoting healthy hair growth, reducing scalp issues, and improving overall hair quality. Herbal powder shampoo is a recommended choice for individuals seeking a natural, gentle, and effective hair care solution.

Reference :-

1. <https://ijrpr.com/uploads/V3ISSUE7/IJRPR5614.pdf>
2. <https://journals.innovareacademics.in/index.php/ajpcr/article/download/3809/1844>
3. <https://ijppr.humanjournals.com/wp-content/uploads/2021/06/24.P-Naga-Haritha-Pabba-Supraja-Shaista-Samreen-Hrudayanjali-Munawar-Qureshi-P.-sandya-T.-swetha.pdf>
4. <https://journals.innovareacademics.in/index.php/ajpcr/article/download/3809/1844>
5. http://www.journalijar.com/uploads/254_IJAR-5278.pdf
6. <https://www.ijfmr.com/research-paper.php?id=22533>
7. <https://ijppr.humanjournals.com/wp-content/uploads/2021/06/24.P-Naga-Haritha-Pabba-Supraja-Shaista-Samreen-Hrudayanjali-Munawar-Qureshi-P.-sandya-T.-swetha.pdf>
8. <https://ijrpr.com/uploads/V3ISSUE7/IJRPR5614.pdf>

