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# A REVIEW ON HERBAL SHAMPOO

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#### ABSTRACT:

This study whirls around the choosing and assessment of a nearby cleaning master using normal upgrades: Aloe Vera, Neem, Amla, and Ritha (Soapnut). The point was to make a protected, valuable, and eco-obliging decision as opposed to business shampoos. Aloe Vera gives dousing and trim properties, while Neem offers antibacterial and antifungal advantages. Amla deals with the definition with L-ascorbic terrible, moving hair accomplishment, and Ritha goes presumably as a brand name surfactant, guaranteeing sensible purging. The concluding system included coordinating nearby limits, blending them in with refined water and Aloe Vera gel, and cementing obliging oils for aroma. Strength and microbial tests affirmed the thing's security and adequacy. Client evaluations showed high fulfillment concerning washed, straightforwardness of flushing, and in standard execution. This nearby form not just takes sublime thought of the making interest for normal hair care things yet likewise reviews the limitation of standard embellishments for present day plans

key words: (Eco-obliging, Evaluation plan, Customary cleaning prepared proficient, hair care)

### **Introduction:**

Local Shampoos a trademark Reply for Hair Care Normal shampoos have transformed into a comprehensively elaborate restorative thing for cleansing the hair and scalp in our regular timetables. These shampoos are sorted out with standard Ayurveda flavors and ordinary plant removes, planned to clean the hair particularly like standard shampoos.[1], [2] Their fundamental ability is to kill excess oils, dandruff, regular defilements, and various poisons from the scalp and hair. Not the slightest bit like designed shampoos, which habitually contain ruthless engineered compounds, regular shampoos are considered safer and more invaluable for hair prosperity. People today favor local things over compound ones as a result of their standard association and the conviction that they advance better long stretch prosperity and food for hair. A cleaning agent is essentially a thick plan of chemicals, containing sensible added substances, added substances, and dynamic trimmings. While designed shampoos work by taking oils from the scalp, regular shampoos mean to scour the hair while simultaneously conveying principal supplements. This sensitive cleansing action avoids the drying influences oftentimes associated with standard shampoos, which can hurt hair and lead to conditions like scalp aggravation or over the top dryness.[3] despite their sanitizing properties, local shampoos can in like manner target unequivocal scalp issues like dandruff or smooth scalp. Dandruff, which is achieved by a dry or sleek scalp conveying bits of dead skin, is one typical condition that numerous people endeavor to manage with shampoos. Normal shampoos arranged with trimmings like Neem, Tea tree oil, or Aloe Vera are particularly practical in easing the scalp and decreasing dandruff.[4], [5], [6] One of the unmistakable features of local shampoos is that they are freed from ruthless manufactured substances like sulfates, parabens, and counterfeit aromas. This makes them gentler on the scalp and hair, lessening the bet of irritation and easily affected reactions. Likewise, these shampoos are normally expected to help the hair, giving supplements and minerals that help with staying aware of hair strength, non-abrasiveness, and shine.[7], [8] Foam game plan is generally speaking contemplated an indication of chemical quality, regardless of the way that it's not exactly associated with refining reasonability. Various clients accomplice more foam with better execution, yet local shampoos can shape rich foam without awful cleaning agents. In any case, a couple of shampoos, especially those sorted out with additional grounded engineered substances, may cause dryness or unsettling influence, which is the explanation genuine trim is huge ensuing to shampooing. All things considered, local shampoos are a trademark choice as opposed to standard things. They give a delicate cleansing effect while taking care of the hair and scalp. As people continuously search for safer and more reasonable greatness game plans, local shampoos offer a sensitive, convincing decision for staying aware of sound hair.[9], [10], [11], [12]

#### **OBJECTIVE:**

Cleansing: Cleaning agent kills soil, oil, and contaminations from the scalp and hair.

- 2. Oil Control: It clears out excess oil, but misuse could cause dryness.
- 3. Nutrient Progression: A couple of shampoos supply supplements (like supplements and proteins)to build up hair.
- 4. Texture Improvement: Chemical can smoothen hair, making it milder and more sensible.

- 5. Color Change: Certain shampoos possibly dark or further develop hair tone.
- 6. Gloss and Sensibility: Shampoos add shimmer and help hinder tangling for easier styling.
- 7. Scalp Prosperity: Data on scalp and skin layers helps in giving assigned care.
- 8. Scalp Control: Strategies like plying support course and stripping for a sound scalp.
- 9. Procedure Presentation: Fitting shampooing and shaping advances ensure strong results for clients.[2], [5], [13], [14], [15], [16]

### Ideal properties of herbal shampoo:

- Makes hair smooth and shiny.
- II. Produces a good amount of foam.
- III. Does not irritate the scalp, skin, or eyes.
- IV. Completely and effectively removes dirt.
- V. Imparts a pleasant fragrance to the hair.
- VI. Can be easily rinsed off with water.
- VII. Leaves a lingering, pleasant scent in the hair.
- VIII. Is easily removable by washing with water after application.[17], [18], [19], [20], [21]

### **Materials and Methods:**

- I. Aloe Vera
- II. Neem
- III. Amla
- IV. Ritha (Soapnut)

#### 1. Aloe vera:

- Family: Asphodelaceae (Liliaceae)
- Part used: Leaves.

#### Uses:

- i. Relieves a scratchy scalp. Deeply cleans greasy hair,
- ii. Consolidate, Strengthens

## Aloe Vera

Aloe Vera, a plant with thick leaves, contains a gel-like substance that serves as a raw material for treating hair care issues. It is rich in vitamins that promote cell growth and strengthen the hair.[12], [22], [23]



## 2. Neem: (Azardirachta indica):

- Family: Meliaceae
- Part used: Leaves

### Uses:

- I. Prevent the dryness of hair,
- II. Flaking of hairs

Neem:-(Azardirachta indica )

Neem, all around called Indian Lilac, is a versatile plant nearby to the Indian subcontinent, regarded for its rich bioactive blends like nimbin and salannin. [24], [25], [26] Neem's properties make it fundamental in various applications:

1. Bug Control: Neem thinks and oil are important conventional bug showers, scolding ticks, bugs, and lice.

- 2. Sound skin: Its quieting and microorganism free qualities assist with treating with cleaning aggravating, dermatitis, and minor wounds, progressing speedier recovering.
- 3. Predictable Purposes: All things considered used in Ayurvedic fix, neem stays aware of obstruction, liver cutoff, and may help with overseeing diabetes. Neem remains a major fixing in standard irritating control, standard prescription, and skincare.[15], [27], [28], [29]



#### 3. Amla: (Emblica Officinalis):

Family: PhyllanthaceaePart used: Fruit

#### Uses:

- I. The herbal shampoo addresses hair loss
- II. Scalp dryness,
- III. Dandruff and Infections.

### 4. Amla (Emblica officinalis):

Amla, otherwise called Indian Gooseberry, is a supplement thick natural product famous for its high L-ascorbic acid substance, as well as Iron and Calcium. Its name gets from the Greek word for "leaf bloom," and it is basically made out of phyllembic corrosive and tannins like Gallic corrosive, ellagic corrosive, and phyllembelin. The watery concentrate of Amla is generally utilized in plans for its various medical advantages. It is esteemed for its astringent, cooling, purgative, and diuretic properties, making it a well known fixing in Ayurvedic medication and different regular wellbeing products.[15], [30], [31]

### 5. Reetha (Sapindusmukorossi):

Family: SapindaceaePart used: Fruits

## • Uses:

- I. Stops hair loss
- II. Prevents dandruff
- III. Battles scalp infections

#### Reetha:

Reetha powder (soapnut powder) is brilliant for hair care. When utilized consistently, it can assist with feeding the scalp, support hair regrowth, and oversee issues like dandruff and lice because of its regular purifying and insecticidal properties. To utilize it really, blend reetha powder with warm water to frame a glue, then, at that point, delicately knead it into the scalp. Leave it on for a couple of moments prior to washing it out. This can advance a better scalp and cleaner hair normally without the utilization of brutal chemicals.[15][32]



### Formulation of herbal shampoo:

Typical formulation of a shampoo consists of following components:

- 1. Foam boosters and stabilizers
- 2. Conditioning agents
- 3. Special additives
- 4. Preservation
- 5. Sequestering agents
- 6. Viscosity modifiers (thickening thinning agents)
- 7. Opacifying or clarifying agents
- 8. Fragrance
- 9. Colour
- 10. Stabilizers (suspending agent's antioxidants, UV-Stabilizers) [[13], [33], [34], [35], [36]

## **Evaluation of herbal shampoo:**

The prepared formulation underwent evaluation for product performance, including assessment of organoleptic characteristics, pH level, physicochemical properties, and solid content. To ensure product quality, specific tests were conducted to measure surface tension, foam volume, foam stability, and wetting time, following standard protocols

#### 1. Visual assessment:

The prepared formulation was assessed for color, clarity, odor, and froth content.

#### 2. pH Determination:

The pH of the prepared herbal shampoo in distilled water 10%v/v is evaluated by means of pH analyser in the room temperature.

#### 3. Determination of solid content percentage:

Approximately 4g of the shampoo is weighed in a dry, clean, and evaporating dish. The liquid portion was evaporated by placing the dish on a hot plate. The percentage and weight of the solid content in the shampoo are calculated after complete drying.

### 4. Dirt dispersion:

Two drops of the shampoo are added to a test tube containing 10 ml of distilled water. One drop of India ink is added, and the test tube is stoppered and shaken ten times. The amount of ink in the foam is observed and categorized as none, light, moderate, or heavy.

### 5. Foam stability test:

The foam stability is determined using the cylinder shake method. About 5 ml of a 1% solution of the formulated shampoo is taken in a measuring cylinder and vigorously shaken ten times. The foam volume is recorded after 1 minute and 4 minutes of shaking.

### 6. Stability study:

The prepared shampoo underwent a stability study at a standard room temperature of 25-30 degrees Celsius for a duration of 4 weeks.[37]

#### 7. Skin irritation test:

The prepared herbal shampoo is applied to the skin for 5 minutes, washed off, and observed for any signs of irritation or inflammation. [38]

#### 8. Microbial examination:

A sterile petri dish is filled with 1 ml of the shampoo under aseptic conditions and allowed to set. The plates are then incubated at 37°C for 24 hours and observed for any microbial growth.

### 9. 9. Rheological evaluations:

The viscosity of the shampoo is measured using a Brookfield Viscometer (Model DV-l Plus, LV, USA) with a T95 spindle. The viscosity is measured at different spindle speeds ranging from 0.3 to 10 rpm, while keeping the temperature and sample container size constant.[2], [39], [40], [41]

## **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.[1], [42], [43], [44]

#### REFERENCES:

- [1] S. K. Sonawane, P. P. Shinde, and S. J. Shelke, "Shampoos: Hair Care Cosmetics," Research *Journal of Topical and Cosmetic Sciences*, 2021, doi: 10.52711/2321-5844.2021.00014.
- [2] M. Madhusudhan, M. K. Rao, G. V. Radha, and S. Ganapathy, "Formulation, Evaluation and Comparison of the Polyherbal Shampoo with the Commercial Shampoos," *Asian Journal of Pharmaceutical Research and Health Care*, vol. 13, no. 3, 2021, doi: 10.18311/ajprhc/2021/27623.
- [3] L. Kaur, A. P. Singh, A. P. Singh, and T. Kaur, "A review on herbal cosmetics," *International Journal of Pharmaceutics and Drug Analysis*, 2021, doi: 10.47957/ijpda.v9i3.483.
- [4] F. Alam et al., "Development and Evaluation of Natural Anti-dandruff Shampoo," Journal of Natural Remedies, vol. 23, no. 3, 2023, doi: 10.18311/jnr/2023/33220.
- [5] Khandagale Sandip.S et al., "Formulation and Evaluation of Herbal Neem Anti-Dandruff Shampoo," International Journal of Ayurveda and Pharma Research, 2023, doi: 10.47070/ijapr.v10i12.2471.
- [6] A. M. Pagaran *et al.*, "An Overview of Herbal Ingredients with Anti-dandruff Activity in Shampoo Formulations," *International Journal of Research Publication and Reviews*, vol. 04, no. 01, 2023, doi: 10.55248/gengpi.2023.4125.
- [7] T. Vijay Anil, G. Suchita, and G. Vishal, "Review Article-Herbal Shampoo," INTERANTIONAL JOURNAL OF SCIENTIFIC RESEARCH IN ENGINEERING AND MANAGEMENT, vol. 07, no. 10, 2023, doi: 10.55041/ijsrem26564.
- [8] J. Gubitosa, V. Rizzi, P. Fini, and P. Cosma, "Hair care cosmetics: From traditional shampoo to solid clay and herbal shampoo, A review," 2019. doi: 10.3390/cosmetics6010009.
- [9] A. Vijayalakshmi, S. Sangeetha, and N. Ranjith, "Formulation and evaluation of herbal shampoo," *Asian Journal of Pharmaceutical and Clinical Research*, vol. 11, no. Special Issue 4, 2018, doi: 10.22159/ajpcr.2018.v11s4.31713.
- [10] D. R Karnavat, P. S.Bhadane, R. M. Khairnar, and S. S.Gavit, "Formulation and Evaluation of Herbal Antidandruff Shampoo," *Research Journal of Pharmacognosy and Phytochemistry*, 2022, doi: 10.52711/0975-4385.2022.00032.
- [11] N. R. Kumar et al., "Formulation and Evaluation of Herbal Baby Shampoo," J Pharm Res Int, 2022, doi: 10.9734/jpri/2022/v34i9b35503.
- [12] L. savithri S, V. sravanthi A, S. D, S. R, P. M, and H. J, "Formulation and Evaluation of Aloe Vera Gel Shampoo," *International Journal of Pharmaceutics and Drug Analysis*, 2021, doi: 10.47957/jpda.v9i3.476.
- [13] Manali V. Gharat, Rutuja V. Dalavi, Amit A. Dound, Aniket R. Chikane, and Prof. Kajal A. Walunj, "A Research Article on Formulation and Evaluation of Herbal Shampoo," *International Journal of Advanced Research in Science, Communication and Technology*, 2022, doi: 10.48175/ijarsct-4800.
- [14] M. Dyagatwar *et al.*, "Development and Evaluation of Herbal Shampoo as an Antifungal Formulation," *International Journal of Drug Delivery Technology*, vol. 13, no. 3, 2023, doi: 10.25258/ijddt.13.3.23.
- [15] I. Kumari, I. Sarkar, S. Das, R. Das, and I. Sanyashi, "Formulation and Evaluation of herbal shampoo using neem, amla and reetha extract," ~ 179 ~ Journal of Pharmacognosy and Phytochemistry, vol. 11, no. 4, 2022.
- [16] S. Uzzaman, "Pharmacological activities of neem (Azadirachta indica): A review," *International Journal of Pharmacognosy and Life Science*, vol. 1, no. 1, 2020, doi: 10.33545/27072827.2020.v1.i1a.8.
- [17] G. Lodha, "Formulation and Evaluation of Polyherbal Shampoo to Promote Hair Growth and Provide Antidandruff Action," *Journal of Drug Delivery and Therapeutics*, vol. 9, no. 4-A, 2019, doi: 10.22270/jddt.v9i4-a.3474.
- [18] S. TINRAT and C. SINGHAPOL, "EVALUATION OF ANTIOXIDANT AND ANTIBACTERIAL ACTIVITIES OF VERNONIA AMYGDALINA LEAF EXTRACTS AS AN AUXILIARY IN NATURAL HAIR SHAMPOO," *Asian Journal of Pharmaceutical and Clinical Research*, 2020, doi: 10.22159/ajpcr.2020.v13i10.38581.
- [19] N. Joshi, K. Patidar, R. Solanki, and V. Mahawar, "Preparation and evaluation of herbal hair growth promoting shampoo formulation containing Piper betle and Psidium guajava leaves extract," *International Journal of Green Pharmacy*, vol. 12, no. 4, 2018, doi: 10.22377/ijgp.v12i04.2263.
- [20] Y. G. Godeto *et al.*, "Sustainable Use of Extracts of Some Plants Growing in Ethiopia for the Formulation of Herbal Shampoo and Its Antimicrobial Evaluation," *Sustainability (Switzerland)*, vol. 15, no. 4, 2023, doi: 10.3390/su15043189.
- [21] H. A. Asghar et al., "Therapeutic Potential of Azadirachta indica (Neem)-A Comprehensive Review," Scholars International Journal of Traditional and Complementary Medicine, vol. 5, no. 3, 2022, doi: 10.36348/sijtcm.2022.v05i03.001.
- [22] T. Terefe and T. Neges, "Review on therapeutic and medicinal use of aloevera," Cancer Biology, vol. 7, no. 4, 2017.
- [23] M. Raghuvanshi, E. Rajesh, S. Sinha, and N. A. Babu, "Aloevera: The miracle plant and its uses in dentistry A review," 2020. doi: 10.37506/jifmt.v14i4.11697.
- [24] N. Aneesa and R. Gayathri, "Beneficial effects of neem oil-an updated review," 2016.
- [25] P. Sharma, L. Tomar, M. Bachwani, and V. Bansal, "Review on neem (Azadirachta indica): Thousand problems one solution," *International Research Journal of Pharmacy*, vol. 2, 2011.
- [26] F. O. Osazee and E. M. Jonathan, "Therapeutic Potentials of Neem Against Malaria Parasite: A Review," *Dutse Journal of Pure and Applied Sciences*, vol. 9, no. 2b, 2023, doi: 10.4314/dujopas.v9i2b.20.
- [27] S. Adusei and S. Azupio, "Neem: A Novel Biocide for Pest and Disease Control of Plants," 2022. doi: 10.1155/2022/6778554.
- [28]. Y. Sonalkar Manisha, S. . A. Nitave, and A. . A. Kagalkar, "Review on Neem Plant," world Journal of Pharmacy and Pharmaceutical Science, vol. 3, no. 4, 2014.
- [29] A. P. K. and R. S. A. -, "The Review on Medicinal uses of Neem," *International Journal For Multidisciplinary Research*, vol. 4, no. 6, 2022, doi: 10.36948/ijfmr.2022.v04i06.989.

- [30] A. Zaghlool *et al.*, "Effect of amla and ginger powders on quality criteria of African catfish (Clarias gariepinus) fingers," *Brazilian Journal of Biology*, vol. 83, 2023, doi: 10.1590/1519-6984.270808.
- [31] N. K. Warditiani, P. M. N. A. Sari, N. M. W. Astuti, and I. M. A. G. Wirasuta, "Review potensi Emblica officinalis (Amla) dalam mengatasi gangguan metabolisme dislipidemia dan antioksidan," *Jurnal Farmasi Udayana*, 2023, doi: 10.24843/jfu.2023.v12.i01.p10.
- [32] M. Meka, K. R. Mutyala, R. Gadela, and G. Seru, "Acute Dermal and Ocular Irritation Testing of Herbal Shampoos in New Zealand White Rabbits," *Indian Journal of Pharmaceutical Education and Research*, vol. 56, no. 2, 2022, doi: 10.5530/ijper.56.2s.97.
- [33] V. Kaushik and R. K. Meel, "Formulation and Characterization of Herbal Ingredients based Shampoo," *International Journal of Pharmaceutical Quality Assurance*, vol. 13, no. 4, 2022, doi: 10.25258/ijpqa.13.4.19.
- [34] "An overview on Herbal Shampoo Formulation And Development," *International Research Journal of Modernization in Engineering Technology and Science*, 2023, doi: 10.56726/irjmets46684.
- [35] F. A. Tamboli *et al.*, "Formulation and evaluation of dry herbal powder shampoo," *International Journal of Pharmaceutical Chemistry and Analysis*, vol. 8, no. 3, 2021, doi: 10.18231/j.ijpca.2021.022.
- [36] B. Goswami and S. Mukhopadhyay, "brief review on 'Herbal Hair Tonic," Int J Health Sci (Qassim), 2022, doi: 10.53730/ijhs.v6ns4.10150.
- [37] "Sustainable Use of Traditional Plant Extracts for the Formulation of Herbal Shampoos," *Journal of Hunan University Natural Sciences*, vol. 50, no. 4, 2023, doi: 10.55463/issn.1674-2974.50.4.14.
- [38] P. Piyal, L. Phalke Pallavi, T. Phatangare, and S. Mani, "An overview: Herbal cosmetics and cosmeceuticals," *International Journal of Pharmaceutical Chemistry and Analysis*, vol. 10, no. 2, 2023, doi: 10.18231/j.ijpca.2023.017.
- [39] T. S. Meduri *et al.*, "Formulation and Evaluation of Fermented Rice Water Herbal Shampoo," *Journal of Drug Delivery and Therapeutics*, vol. 11, no. 4-S, 2021, doi: 10.22270/jddt.v11i4-s.4970.
- [40] S. Sawarkar, "Clinical Evaluation of Herbal Active Enriched Shampoo in Anti Dandruff Treatment," *Theranostics of Respiratory & Skin Diseases*, vol. 1, no. 1, 2018, doi: 10.32474/trsd.2018.01.000105.
- [41] M. P. Kapoor, K. Suzuki, T. Derek, M. Ozeki, and T. Okubo, "Clinical evaluation of Emblica Officinalis Gatertn (Amla) in healthy human subjects: Health benefits and safety results from a randomized, double-blind, crossover placebo-controlled study," *Contemp Clin Trials Commun*, vol. 17, 2020, doi: 10.1016/j.conctc.2019.100499.
- [42] P. Gulati, "A Review On Medical Properties of Aloe Vera Plant and It's Profile," *International Research Journal of Modernization in Engineering Technology and Science www.irjmets.com* @International Research Journal of Modernization in Engineering, vol. 121, no. 01, 2021.
- [43] H. I. Raut, G. N. Lodhi, and D. P. Kalode, "A REVIEW ON ANALGESIC HERBAL," *Int J Adv Res (Indore)*, vol. 9, no. 01, 2021, doi: 10.21474/jjar01/12400.
- [44] Z. B. Erarslan and G. EceviT Genç, "Plants in hair cosmetics," *Turkiye Klinikleri Dermatoloji*, vol. 28, no. 3, 2018, doi: 10.5336/dermato.2018-63672.