International Journal of Pharmaceutical Research and Applications
Volume 7, Issue 1 Jan-Feb 2022, pp: 764-769www.ijprajournal.com ISSN: 2249-7781

Critical Analysis of a Selected Herbal Hair Application Applicable as a Herbal Hair Dye for Palithya Relation to Premature Greying of Hair

Dr.M.D.PIshara,

Submitted: 25-01-2022 Accepted: 08-02-2022

ABSTRACT

Hair plays a significant role to improve the individual identity and body image in physical appearance. Premature greying of hair has become a one of condition which can affect the self-esteem in cosmetic concerns. Thus, Hair dyes have become the main modality of the treatment for after nutritional supplementation. With the development of the technology, using many chemical products for the cosmetic purposes has become a major health risk today. Thus the using of eco-friendly herbal hair dyes will lead to reduce the health risks and cosmetic solution for the premature greying of hair. Therefore, objectives of this study was to critically analyze a selected herbal hair application applicable as an Ayurvedic herbal hair dye for Palithya relation to premature greying of hair and to study the pharmacodynamics properties of the drugs of selected hair application. In Ayurveda, premature greying of hair has mentioned as Palithya and discussed under the KshudraRoga and ShiroRoga. Literature information has gathered from the Authentic Ayurvedic text books, previous research evidences and websites. According to the gathered data, the selected sheershalepa(hair application) consisted with Fruit of Phylanthusemblica, seeds of Sesamumindicum, stamen of Nelumbonucifera, stolon of Glycyrrhizaglabra and Bee honey. It has shown the 80% of PittaDoshashamaka quality (controlling body heat), 60% of sheetaveerya (cooling potency) and all most all drugs containing Madhurarasa (Sweet taste) and 60% of drugs has the Guru guna (heaviness) which can control the etiopathogenesis of Palithya. Further, these drugs contain antioxidants, minerals and vitamins which gives the nourishment by using the vishadaguna (penetrating quality) of bee honey. By concluding these properties, the selected sheershalepa can be used as a hair dye in the Palithyaor premature greying of hair.

Keywords: Herbalhair dye,Palithya, premature greying,

I. INTRODUCTION AND RESEARCH PROBLEM/ISSUE

In present era, cosmetic diseases are challenging health risk due to limitations of the modern treatments. Among those cosmetic diseases, premature greying of hair has become a significant health issue as status of hair can affect one's personality. It has become a trend to use chemical hair dyes to cope with this premature greying..But it has revealed that these chemicals can result in unpleasant side effects, such as skin irritation, allergy, hair breakage, skin discoloration and unexpected hair color [2]

So the need of herbal based natural hair dyes is increasing fast due to their natural goodness and lack of side effects. The art of hair dyeing was known as early as 5000 years BC among the Egyptian[1].Drugs from the plant sources are easily available, are less expensive, safe, and efficient. [2] Thus, this study was aimed to critically analyze a selected herbal hair application applicable as an Ayurvedic herbal hair dye for Palithyarelation to premature greying of hair and to studythe pharmacodynamics properties of the drugs of selected hair application

According to the modern science, color of the hair is due to the presence of pigments of melanin stored in the cortex of hair. Hair with no melanin pigments in cortex is completely white and few pigments will lead to grey color. [3]

According to Ayurveda ideal hair should be soft,unctuous,having strong roots and should be black.[4]and premature greying of hair has considered as Palithya. Palitya which is considered as Rasa pradoshajavikara by Acharya Charaka and Sushruta. [5]

Diet and lifestyle are two major factors that influence the health of the hair. Improper nourishment, illnesses and deficiencies of any particular vitamin and minerals affect the quality of hair.

International Journal of Pharmaceutical Research and Applications
Volume 7, Issue 1 Jan-Feb 2022, pp: 764-769www.ijprajournal.com ISSN: 2249-7781

II. RESEARCH METHODOLOGY

The relevant literature has been collected from the diverse Ayurvedic authentic texts, published research journals and authentic internet sources. All data from those sources ware reviewed and analyzed related to the study.

III. RESULTS AND FINDINGS

The etiological factors of Palithya according to Ayurveda

The etiological factors according to Ayurveda can be classified as dietary, life style, psychological and unknown. Due to etiological factors, pitta dosha get aggravated and this aggravated pitta makes an increase in pittoshma and shareer-ushma, these ushma are carried by Vata to the head where along with kapha and these dosha are settled in romakupa and further vitiate locally available bhrajaka pitta, which gives colour to the hair in this way the natural color of the hair is affected and Akalapalitya occurred.[6]

Table:1 Ingredients of the Hair application[7]

Ingredients
Used part
Phylanthusemblica
Fruit
Sesamumradiatum
Seeds
Nelumbonucifera
Stamen
Glycyrrhizagabra
Stolon
Bee honey

Table2 :Pharmacologicalproperties

Name of the drug
Used Part
Rasa
Guna
Veerya
Vipaka
Dosha
Phylanthusemblica
Fruit
Madhura, amla,katu,tikta,kasaya
Guru
Sheeta
Madhura
Tridoshahara
Sesamumindicum
Seeds
Madhura,tikta,Kashaya(anurasa)
Guru
Ushna
Madhura
Vatakapha
Nelumbonucifera
Stamen
Kashaya,Madhura,Tikta
Laghu
Snigdha
Pichchila
Sheeta

International Journal of Pharmaceutical Research and Applications
Volume 7, Issue 1 Jan-Feb 2022, pp: 764-769www.ijprajournal.com ISSN: 2249-7781

Madhuara
Kapha pitta
Glycyrrhizagabra
Stolon
Madhura
Guru
Pichchila
Sheeta
Madhura
Vata Pitta
Bee honey

Madhura(kashaya)
Laghu
Vishada
Ruksha
Ushna
Madhura
Kapha Pitta

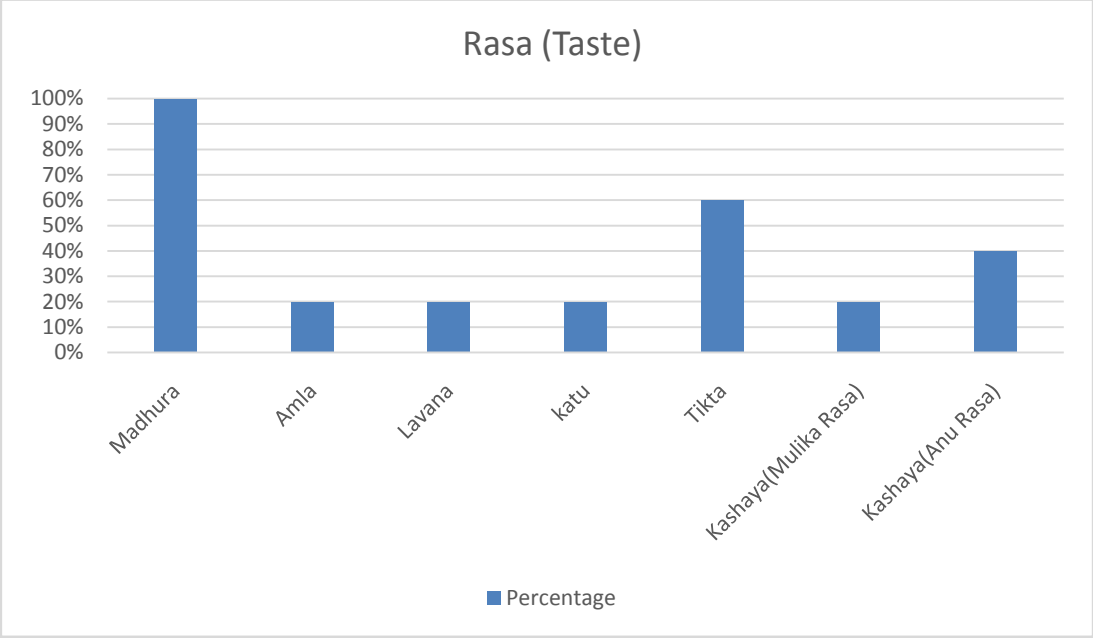

Figure1: Rasa (Taste) distribution in the hair application

International Journal of Pharmaceutical Research and Applications
Volume 7, Issue 1 Jan-Feb 2022, pp: 764-769www.ijprajournal.com ISSN: 2249-7781

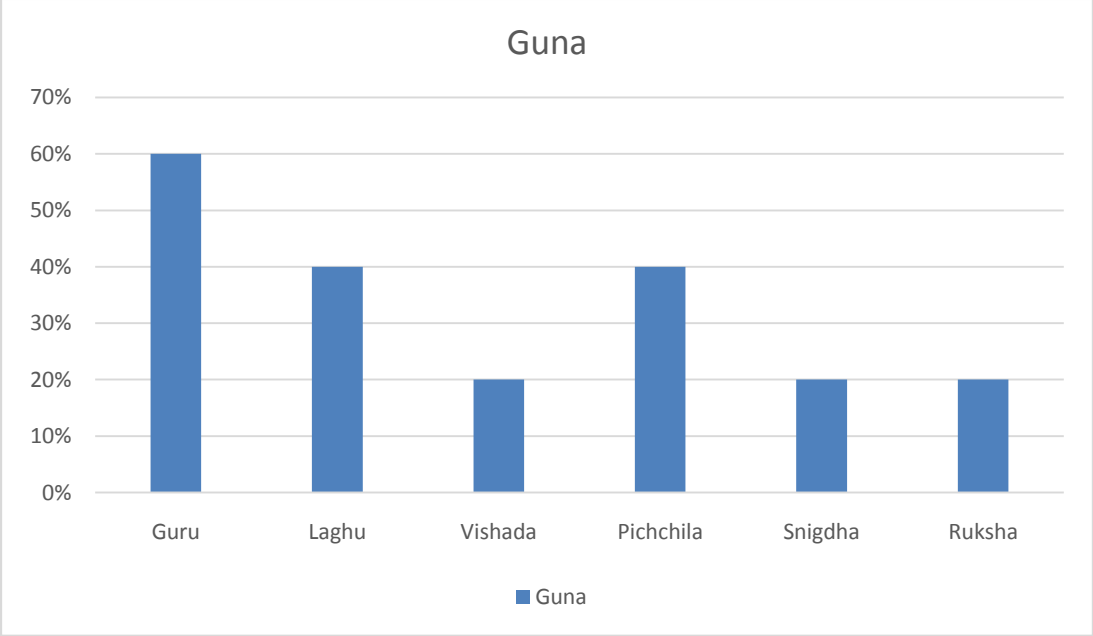

Figure 2: Guna(Attribute) distribution of hair application

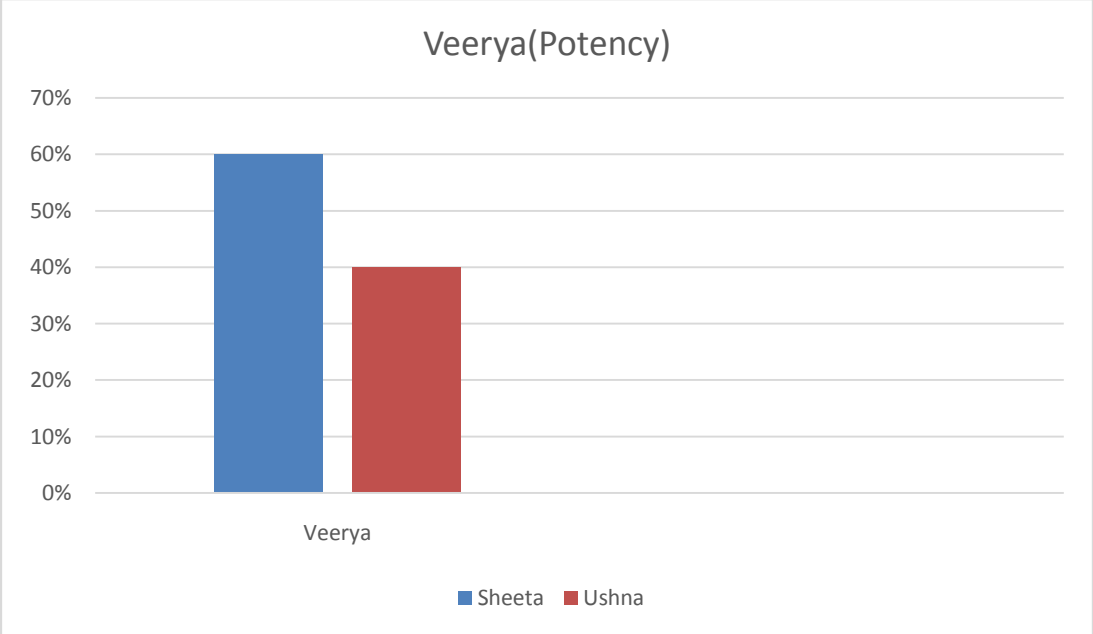

Figure3: Veerya (Potency) distribution of hair application

International Journal of Pharmaceutical Research and Applications
Volume 7, Issue 1 Jan-Feb 2022, pp: 764-769www.ijprajournal.com ISSN: 2249-7781

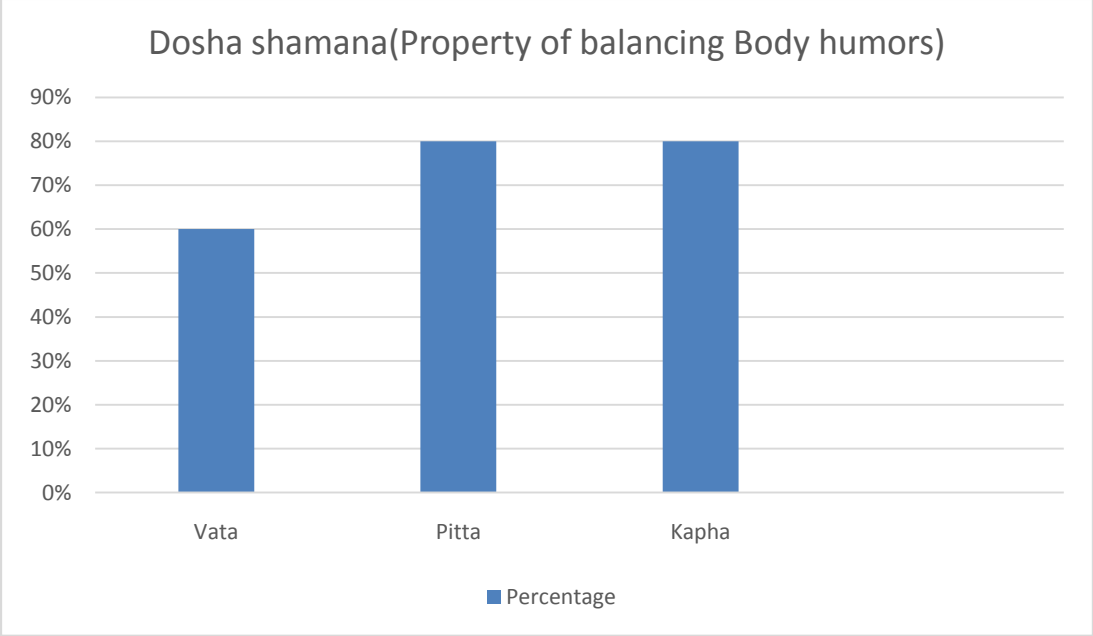

Figure4: Doshashamana property

Table3: Bio active components related to hair care

Bio active components related to hair care
Phylanthusemblica
Vitamin C, Tannins [8]
Calcium, Phosphorus, Fe and amino acid[9]
The fruit extract is useful for hair growth and reduce hair loss
Sesamumindicum
Vitamin E ,Lignans (antioxidants)
sesamin, sesamolin[10]
Nelumbonucifera
Quercetin,Luteolin,Kaempferol
Glucosides[11]
Glycyrrhizagabra
Isoflavonoid, flavonoids, and triterpenoid glycosides (saponins)[12]
Bee honey
hrysin, apigenin, kaempferol, quercetin, galangin, pinocembrin or naringenin[13]

Considering the data, the prominent taste, attribute, potency, post digestive quality and doshic predominant was Madhura (Madhura), Guru(heavy), Sheetha(hot), MadhuraVipaka (Sweet) and PittaKaphadosha consecutively. Prominent Madhura Rasa, Madhuravipaka and Sheethaveeryapacifies the Pitta Dosa; which is the main vitiated dosa and break the further pathogenesis of Palithya. KaphaDosa and Guru guna would be beneficial to the effect of stagnation and stabilizing effect of the colour in the hair.

Hair dyes involves the permeation of the molecules into intercuticular regions, passing through non-keratinized regions of the endocuticle and the intracellular cement. In later stages, it migrates to keratinized regions and, eventually, reaches the macrofibrils, before being incorporated into the matrix [14].Laghu ,vishada and rukshaguna of the bee honey which is used as the vehicle agent ; would lead to transport coloring molecules to the intercutiucular regions through micro circular system by using Vatadosa.

In the hair dyes antioxidants are necessary to avoid the reaction beginning before the addition

International Journal of Pharmaceutical Research and Applications
Volume 7, Issue 1 Jan-Feb 2022, pp: 764-769www.ijprajournal.com ISSN: 2249-7781

of the oxidant itself. It is recommended to use a water-soluble antioxidant to manipulation of bases and reaction modifiers could initiate the oxidative reaction, which may interfere with the final color. One of the molecules most frequently used for this purpose is the erythorbic acid (AEB). Erythorbic acid is a stereoisomer of ascorbic acid that differs from ascorbic acid only in the relative position of the hydrogen and hydroxyl groups on the fifth carbon atom.[15]There are the same antioxidants in this hair application, including water soluble vitamins like Vitamin C or Ascorbic acid. According to gathered data, it revealed that this hair application is consisted with drugs which were containingbio active compounds to combat premature greying.

IV. CONCLUSIONS, IMPLICATIONS AND SIGNIFICANCE

Among the several hair dye options, it is essential to differentiate whether herbal hair applications have the features and qualities of hair dyes. According to the gathered data, the selected hair application is consisted with herbal drugs and can be used as aherbal hair dye to the people who are suffering from premature greying of hair as anoption to get rid from chemical dyes. The extra benefit of this hair application is,itspharmacodynamic properties are providing medicinal properties to the hair which leads to break out the further pathogenesis of Palithya.

REFERENCES (SELECTED)

[1]. Brown K. Hair Colourants, J SocCosmetChem 1982;33: 375-83
[2]. Naser Zaid¸ A.¸ et al¸ Int J Pharm Pharm Sci. 2013¸ 5, 2, 485-488.
[3]. Kumar KS, Begum A, Shashidhar B, et al. Formulation and evaluation of 100% herbal hair dye. International Journal of Advanced Research In Medical & Pharmaceutical Sciences 2016
[4]. Sharma PP, editors,Hair structure, cosmetic formulation, manufacturing and quality control, 4th edition, Vandana Publications Pvt. Ltd, 2008, p.315-322
[5]. Behl PN, Agrawal A, Srivastava G, Practice of Dermatology, 9th edition, CBS Publisher, New Delhi, 2003, page 238-41
[6]. Susruta, SusrutaSamhita, NidanSthan, Kshudrarogadhyaya 13/36 ChaukhambhaSanskritaSansthana, Varanasi, edition 14 VikramaSamvata2060; p-285
[7]. Das Bhagawan , Sharma R.K(ed), CharakaSamhitha, Chikithsasthana, Thrimarmeeya Adhyaya,26/289
[8]. Nisha P, Singhal RS, Pandit AB. A study on degradation kinetics of ascorbic acid in amla (Phyllanthusemblica L.) during cooking. Int J Food SciNutr 2004; 55(5): 415-22
[9]. Turner DM. Natural product source material use in the pharmaceutical industry: The Glaxo experience. J Ethnopharmacol 1996; 51(1-3):39-43
[10]. . Pathak N, .Rai A. K, R. Kumari and .Bhat K. V, Pharmacogn. Rev., 2014, **8** , 147 —155 .
[11]. N. R. Mehta, E. P. Patel, P. V. Patani, and B. Shah, "Nelumbonucifera (Lotus): a review on ethanobotany, phytochemistry and pharmacology," Indian Journal of Pharmrmaceutical and Biological Research, vol. 1, no. 4, pp. 152–167, 2013
[12]. Badr S.E.A., Sakr D.M., Mahfouz S.A., Abdelfattah M.S. Licorice (Glycyrrhizaglabra L.): Chemical composition and biological impacts. Res. J. Pharm. Biol. Chem. Sci. 2013;4:606–621.
[13]. Ciulu, M., Spano, N., Pilo, M., and Sanna, G. (2016). Recent Advances in the Analysis of Phenolic Compounds in Unifloral Honeys. Molecules 21 (4), 451. doi:10.3390/molecules21040451
[14]. Morel, O.J.X.; Christie, R.M. Current trends in the chemistry of permanent hair dyeing. Chem. Rev. 2011, 111, 2537–2561
[15]. Rehwoldt.R,Tracking the use of antioxidants through industry surveys,FoodChemToxicol1986; 24: 1039–41