

# WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

SJIF Impact Factor 8.453

Volume 14, Issue 19, 200-205.

Review Article

ISSN 2277-7105

# A REVIEW ON THE RELATION BETWEEN RASASARATA AND PALITYA (PREMATURE GREYING OF HAIR)

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Article Received on 10 August 2025,

Revised on 02 Sept. 2025, Accepted on 23 Sept. 2025

https://doi.org/10.5281/zenodo.17213974



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#### **ABSTRACT**

Pālitya (premature greying of hair) is considered a significant Kṣudra Roga in Āyurveda, reflecting disturbance in the balance of Doṣa, Dhātu and Agni. Classical texts emphasize the role of *Rasasarata*—the qualitative state of Rasa Dhātu—in maintaining the nourishment and integrity of subsequent Dhātus. When Rasa is of optimum quality, it ensures proper *Upadhātu* formation including *Tvak* and *Keśa*. Derangement of Rasasarata due to improper Ahāra, Vihāra, stress, and Doṣa vitiation, especially of Pitta, leads to inadequate nourishment of hair follicles, resulting in early loss of pigmentation and manifestation of Pālitya. Modern understanding correlates this with nutritional deficiencies, oxidative stress, and premature melanocyte dysfunction. The review explores the Ayurvedic concept of Rasa Dhātu and its *Sārata* in relation to hair physiology, analyzes textual references from Bṛhattrayī and Laghutrayī, and discusses the modern perspective of melanogenesis and its impairment. The interlink between Rasasarata

and Pālitya highlights the importance of maintaining Rasa Dhātu quality through Rasāyana, wholesome diet, and lifestyle, thereby preventing premature greying and promoting healthy aging.

**KEYWORDS:** Rasasarata, Pālitya, Rasa Dhātu, Dhātu Poshana, Premature greying, Rasāyana.

#### **INTRODUCTION**

Health and beauty are considered reflections of inner equilibrium in Ayurveda, where hair (Keśa) serves as a vital marker of strength, youth, and vitality. The premature greying of hair, termed *Pālitya*, is described among the *Ksudra Rogas* by Ācāryas, but its psychosocial and clinical significance is immense, especially in the present era where early ageing signs have become increasingly prevalent. [1] According to Āyurveda, the health of hair is closely related to the status of *Dhātus* and Doşic balance. Among them, *Rasa Dhātu* holds prime importance, being the first tissue formed after digestion and serving as the foundational nutrient for all successive Dhātus. [2]

The excellence of Rasa Dhātu is known as *Rasasarata*. This qualitative state not only ensures the proper nourishment of subsequent Dhātus but also reflects in strong immunity, clear complexion, and healthy hair. [3] The Keśa is considered a byproduct of Asthi Dhātu; yet, its nourishment depends on the continuous cascade of *Dhātuposhana Nyāya*, beginning with Rasa Dhātu. [4] Thus, when Rasasarata is impaired—due to faulty diet (Ahāra), improper lifestyle (Vihāra), or aggravated Doşas, particularly Pitta—the nutritive support to hair follicles becomes weak. This leads to loss of pigmentation and manifestation of Pālitya at an early age.<sup>[5]</sup>

Classical texts like Caraka Samhitā, Suśruta Samhitā, and Astānga Hrdaya highlight the dominance of *Pitta Dosa* and its vitiation in the causation of premature greying. Pitta, when aggravated and lodged in the root of hair follicles, destroys the natural pigment, while deficient or vitiated Rasa Dhātu fails to support melanogenesis. [6] Thus, a dual mechanism of impaired nourishment (Dhātu-kṣaya) and destructive action (Doṣa-prakopa) results in Pālitya.

From the modern scientific perspective, premature greying is understood as a multifactorial phenomenon involving genetic predisposition, oxidative stress, melanocyte stem cell depletion, and nutritional deficiencies (iron, vitamin B12, folic acid, copper). Research has shown that accumulation of hydrogen peroxide within hair follicles leads to oxidative damage and loss of melanin synthesis. [7] These findings correlate well with the Ayurvedic notion that disturbed Rasasarata and aggravated Pitta generate degenerative changes in tissues.

The growing prevalence of premature greying in younger populations indicates the need to revisit Ayurvedic principles of Rasasarata in maintaining Keśa health. A comprehensive understanding of this relation not only enriches classical knowledge but also provides preventive and therapeutic strategies through Rasāyana, wholesome diet, and lifestyle regulation. [8] Thus, Rasasarata can be seen as a central determinant in delaying ageing manifestations like Pālitya and preserving vitality.

# **AIMS AND OBJECTIVES**

- 1. To review the Ayurvedic concept of Rasasarata and its role in Dhātu Poshana.
- 2. To establish the relationship between deranged Rasasarata and the manifestation of Pālitya.
- 3. To correlate classical concepts with modern understanding of hair greying.
- 4. To highlight preventive and therapeutic measures through Rasāyana and holistic approaches.

#### MATERIALS AND METHODS

- Classical sources: Review of Bṛhattrayī (Caraka, Suśruta, Vāgbhaṭa), Laghutrayī and Nighantus for references on Rasasarata and Pālitya.
- Contemporary sources: Published research articles, books, and clinical studies on premature greying, melanocyte biology, and nutrition.
- **Method:** Critical analysis and correlation of Ayurvedic concepts with modern science.

# **DISCUSSION**

# 1. Rasasarata and its Role in Dhātu Poshana

Āyurveda describes Rasasarata as the state of supreme excellence of Rasa Dhātu, reflected in Snigdhatā (unctuousness), Śīta sparśa (coolness), clarity of voice, healthy complexion, and longevity.<sup>[9]</sup> Being the first Dhātu formed after digestion, Rasa is responsible for nourishing all subsequent Dhātus through the principle of *Dhātuposhana Nyāya*. [10] When Rasa is qualitatively and quantitatively pure, it supports Tvak, Keśa, and Rakta Dhātu effectively, maintaining pigmentation and strength of hair. Conversely, Rasadushti leads to Apakva Rasa, which impairs the chain of tissue nourishment, ultimately manifesting as Keśa vaivarnya (discoloration) and Pālitya.

# 2. Pathogenesis of Pālitya in Ayurveda

Premature greying is attributed primarily to Pitta vitiation localized in the Romakūpa (hair follicle) region. [11] The Suśruta Samhitā describes that aggravated Pitta, when combined with Vāta, burns or destroys the natural pigment, turning hair red or white. [12] Along with this

destructive action of Pitta, the impaired quality of Rasa (loss of Rasasarata) reduces nourishment of melanocyte equivalents (*Pittāśrita Dhātu*), aggravating degeneration.

Further,  $\bar{A}h\bar{a}ra$ -vih $\bar{a}ra$  hetus such as excessive intake of Amla, Lavaṇa,  $Kṣ\bar{a}ra$ ,  $K\bar{a}tuka$ , and exposure to stress, anger, and irregular lifestyle accelerate Pitta prakopa. This establishes the Ayurvedic view that both Doṣa vitiation and Dhātu depletion are simultaneously involved in Pālitya.

# 3. Modern Correlation of Rasa Dhātu with Nutritional Physiology

Modern physiology correlates Rasa Dhātu with plasma and lymph, which supply nutrients to tissues.<sup>[14]</sup> Deficiency or poor quality of these nutritive fluids directly affects rapidly proliferating tissues like hair follicles. Nutritional deficiencies such as iron, vitamin B12, folic acid, and copper are strongly linked to premature greying.<sup>[15]</sup> This is consistent with the Ayurvedic idea that improper Rasasarata fails to nourish subsequent Dhātus, leading to defective pigmentation.

# 4. Oxidative Stress and Pitta Analogy

Contemporary research suggests that oxidative stress plays a central role in hair greying. Accumulation of hydrogen peroxide in hair follicles damages melanocytes and disrupts melanin synthesis.<sup>[16]</sup> Enzymes like catalase and methionine sulfoxide reductase, which normally neutralize reactive oxygen species, become deficient with ageing, leading to depigmentation.<sup>[17]</sup> This process is analogous to *Pitta prakopa* in Ayurveda, where increased *Uṣṇa* and *Tikṣṇa guṇa* burn and degrade the pigment at the follicular level.

# 5. Rasāyana and Preventive Approaches

Āyurveda emphasizes maintaining Rasasarata through proper *Ahāra*, *Vihāra*, and *Rasāyana* therapy. Classical Rasāyana drugs such as Āmalakī, Bhrngarāja, Gudūcī, and Yaṣṭimadhu are described as *Keśya* and *Vayasthāpana*. Procedures like *Śirobasti*, *Nasya* with Nīlibrngādi Taila, and *Abhyanga* support local nourishment and prevent degenerative changes.

Modern science also validates the use of antioxidants, adaptogens, and micronutrient-rich diets for protecting melanocytes against oxidative damage and delaying greying.<sup>[19]</sup> Stress management, regular sleep, and balanced diet parallel the Ayurvedic emphasis on lifestyle regulation (*Dinacharya*, *Ritucharya*). Thus, both systems of knowledge converge on the

principle of maintaining tissue vitality and preventing premature ageing by nourishing the body at its root.

#### **CONCLUSION**

The concept of *Rasasarata* provides a holistic explanation for the pathogenesis of Pālitya. When Rasa Dhātu is of superior quality, it ensures adequate nourishment of successive Dhātus and maintains the health of hair. Impairment of Rasasarata, combined with Pitta vitiation, leads to premature greying of hair. Modern scientific evidence on oxidative stress and nutritional deficiencies parallels this Ayurvedic understanding. Preventive strategies through Rasāyana therapy, balanced diet, and lifestyle modification not only improve Rasasarata but also delay degenerative changes, offering a comprehensive approach for the management of Pālitya.

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