



Review Article

ROLE OF PSYCHOLOGICAL FACTORS IN THE ETIOPATHOGENESIS OF *PALITYA* (PREMATURE GREYING OF HAIR): AN AYURVEDIC PERSPECTIVE WITH CONTEMPORARY EVIDENCE

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ABSTRACT

Palitya is increasingly seen in young individuals and cannot be fully explained by genetic or nutritional factors. Ayurvedic texts identify *Manasika Nidana*, including *Chinta* (worry), *Shoka* (sadness), and *Krodha* (anger), as significant etiological factors, reflecting a strong mind-body association in the pathogenesis of *Palitya*. Contemporary biomedical research similarly recognizes psychological stress as an important contributor to alterations in hair pigmentation. This review examines the role of psychological factors in the etiopathogenesis of *Palitya* from an Ayurvedic perspective and correlates these concepts with current scientific evidence. Ayurvedic literature was reviewed with emphasis on the involvement of *Manasika Nidana* in *Palitya*. In parallel, modern biomedical literature was analyzed focusing on psychological stress, oxidative stress, and neuroendocrine mechanisms related to hair pigmentation. Ayurvedic texts describe *Palitya* as a consequence of stress-induced *Vata-Pitta* vitiation leading to impaired *Agni* (digestive-metabolic function), *Dhatu Vaishamy* (imbalance of bodily tissues), and *Oja Kshaya* (loss of vitality), ultimately affecting hair pigmentation. Modern studies support these observations by demonstrating stress-related activation of the Hypothalamic-Pituitary-Adrenal axis, oxidative stress, melanocyte stem cell depletion, and inflammatory cytokine elevation. These converging perspectives highlight psychological stress as a key factor in *Palitya* and support integrative management approaches for *Palitya*.

INTRODUCTION

Palitya, commonly referred to as premature greying of hair (ICD 11- ED73.10), is a condition marked by the early onset of loss of natural hair pigmentation. This phenomenon transcends cosmetic concerns, often impacting psychological well-being and social interactions. Hair has conventionally been considered to gray prematurely only if greying occurs before the age of 20 years in Whites, before 25 years in Asians, and before 30 years in Africans.^[1]

Although an exact cutoff to define premature canities in the Indian population is lacking, a cutoff of 20 years was used in the study by Bhat et al. and 25 years was suggested by Pasricha and Verma.^[2,3] The etiology of *Palitya* is multifactorial, involving genetic, environmental, nutritional, and psychological factors. Ayurveda, the ancient Indian system of medicine, provides a holistic framework for understanding *Palitya*, emphasizing the intricate balance of *Doshas* (regulatory functional factors of body), *Dhatu*s (major structural components of the body/bodily tissues), and *Agni* in maintaining hair health and pigmentation.

Among the several etiological factors described in Ayurvedic literature, *Manasika Nidana* (psychological factors) occupies a significant position. Classical texts such as *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya* identify mental stressors including *Chinta*, *Shoka*, and *Krodha* as potent

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disruptors of *Doshic* balance, particularly *Pitta* and *Vata doshas*.^[4] Among the subtypes of *Pitta*, *Bhrajak Pitta* (subtypes of *Pitta* that causes illumination or shining of the skin) is specifically implicated in the regulation of skin and hair pigmentation; its derangement under sustained emotional stress is therefore postulated to play a central role in the pathogenesis of *Palitya*.^[5] Such disturbance impairs *Agni*, leading to the formation of *Ama* (metabolic toxin) and subsequent depletion of essential *Dhatu*s like *Rasa* (first bodily tissue responsible for nourishment) and *Rakta* (blood tissue), ultimately culminating in premature hair greying.

In recent decades, biomedical research has increasingly recognized the role of psychological stress and neuroendocrine mechanisms in the pathogenesis of premature greying.^[6,7] Oxidative stress, melanocyte stem cell depletion, and neuroinflammatory pathways have been implicated in disrupting hair follicle pigmentation.^[8,9,10] This article aims to synthesize Ayurvedic conceptualizations of *Manasika Nidana* in *Palitya* with contemporary scientific evidence, providing a comprehensive and integrative understanding of the condition.

MATERIALS AND METHODS

This article is based on an extensive review of classical Ayurvedic literature and contemporary biomedical research. The Ayurvedic component involved a detailed examination of primary texts including *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya*, with emphasis on sections describing the role of *Manasika Nidana* in the pathogenesis of *Palitya*. Descriptions of *Doshic* imbalances, *Dhatu* depletion, and recommended therapeutic interventions were also analysed to clarify the underlying pathophysiology and management approaches.

Parallely, a thorough review of modern biomedical literature was conducted using keywords such as "psychological stress," "premature greying," "oxidative stress," "melanocyte biology," "hair pigmentation," and "neuroendocrine pathways." Databases such as PubMed, Scopus, Web of science, AYUSH Research Portal and Google Scholar were surveyed to identify relevant experimental, clinical, and review articles published in recent years. The focus was on elucidating the biological impact of psychological stress on hair follicle pigmentation and the underlying molecular mechanisms.

RESULTS

Ayurvedic Perspective on *Manasika Nidana* in *Palitya*

Ayurvedic texts consistently emphasize the profound impact of mental or emotional disturbances on physical health, and *Palitya* is one example of this mind-body interaction. *Manasika Nidana* includes a range of psychological stressors such as: *Krodha*, *Shoka*, *Chinta*.

Persistent exposure to *Manasika Nidana* such as *Krodha*, *Shoka*, and *Chinta* results in the vitiation of *Vata* and *Pitta dosha*. Among these, aggravated *Pitta* leads to an abnormal increase in *Ushna guna* (heating quality or nature) of *Pitta dosha*, which subsequently enhances the overall *Shariroshma* (systemic body heat). Due to its inherent *Chala guna* (mobile quality), vitiated *Vata* facilitates the upward movement of this excessive *Pittoshma* toward the *Shirah Pradesh* (head region). This aberrant *Doshic* movement culminates in *Sthanika Dosh Dusthi* (localized vitiation of all three *Doshas*) at the level of *Kesha Bhumi* (area of the skin from where hairs arise/scalp) and *Romakupa* (hair root/follicles). At the local level, *Bhrajaka Pitta*, which governs skin and hair pigmentation, becomes predominantly disturbed. This leads to *Kesha Moola* or *Romakupa Dusthi*, along with associated *Dhatu Vaishamyas*, particularly affecting *Rasa* and *Rakta dhatu*. As a result, the physiological process of *Kesha Varna Utpatti* (hair pigmentation) undergoes *Vikrati* (derangement). Consequently, the normal synthesis and maintenance of hair color are impaired, ultimately manifesting as *Akala Palitya*.^[11-13]

Additionally, persistent *Manasika Nidana* leads to *Manodaurbalya* (mental weakness) and continuous *Doshas prakopa* (aggravation of the doshas), which in turn cause *Ojokshaya*. As *Ojas* is the *Sara* (essence) of all *Dhatu*s and the substratum of *Bala* (bodily strength) and *Vyadhikshamatva* (immunity), its depletion results in diminished tissue strength and stability. Owing to impaired *Agni* and defective *Dhatu Poshana* (nourishment of *Dhatu*), adequate nourishment of the *Kesha Moola* fails to occur. *Ojokshaya* further aggravates *Vata Dosh*, leading to *Khara* and *Ruksha Guna Vriddhi* (increase of rough and dry qualities) at the level of *Romakupa*. This weakens the structural integrity of hair follicles and enhances susceptibility to local *Bhrajaka Pitta Dusthi*. Consequently, the coordinated functioning of *Dosha*, *Dhatu*, and *Ojas* required for normal *Kesha Varna Utpatti* is disrupted, thereby facilitating the early manifestation of *Akala Palitya*.^[14-17]

Modern Perspective on Psychological Stress in Premature Greying

Modern scientific research has increasingly elucidated the biological mechanisms through which psychological stress contributes to the onset of premature hair greying (Table 1).

Activation of the Hypothalamic-Pituitary-Adrenal (HPA) Axis: Sustained HPA axis stimulation leads to dysregulated secretion of stress hormones, particularly cortisol, which plays a central role in mediating systemic stress responses. Cortisol imbalance can increase oxidative stress and activate inflammatory pathways, creating conditions that favour tissue damage.^[18,19]

Oxidative Stress and Reactive Oxygen Species (ROS): Stress-related mediators increase ROS production, which damage cellular macromolecules including lipids, proteins, and nucleic acids. Within the hair follicle, melanocytes, the specialized cells responsible for melanin synthesis, are particularly susceptible to oxidative injury. Excessive oxidative stress disrupts melanogenic activity, leading to impaired pigment production and progressive loss of hair color.^[20,21] Supporting this pro-oxidant hypothesis, Wood *et al.* demonstrated significant accumulation of hydrogen peroxide (H₂O₂) in gray hair follicles, along

with reduced expression of critical antioxidant enzymes such as catalase and methionine sulfoxide reductase, indicating a failure of intrinsic antioxidant defence mechanisms in greying hair.^[22]

Neuroendocrine Modulation: Psychological stress exerts direct effects on hair pigmentation through neurogenic mechanisms. Experimental studies have demonstrated that stress-induced hyperactivation of the sympathetic nervous system leads to excessive release of norepinephrine within the hair follicle niche. This aberrant neural signaling forces melanocyte stem cells to undergo rapid differentiation and migration, resulting in premature depletion of the melanocyte stem cell reservoir. Loss of these stem cells compromises the regenerative capacity required for sustained pigment production, thereby precipitating irreversible hair greying, as demonstrated in animal models.^[23]

Inflammatory Cytokines: Stress elevates pro-inflammatory cytokines, including interleukin-6 (IL-6) and tumor necrosis factor-alpha (TNF- α). These cytokines contribute to a state of low-grade systemic inflammation that adversely affects the hair follicle microenvironment, promoting melanocyte dysfunction and follicular damage.^[24]

Table 1: Researches on Premature Greying of Hairs and Psychological Factors

S.No.	Authors (Year)	Sample Size / Key Methods	Psychological Factors (Stress/Anxiety/Grief/Anger)	Other Contributing Factors	Key Mechanisms Postulated
1.	Wood JM <i>et al.</i> ^[25] (2009)	In vivo human scalp hair analysis, immunofluorescence, enzyme kinetics	Not directly assessed (focus on oxidative stress, which can be induced by psychological stress).	Aging-related oxidative stress; accumulation of H ₂ O ₂ ; loss of antioxidant enzymes	Excess H ₂ O ₂ and antioxidant deficiency oxidize tyrosinase, suppressing melanogenesis progressively.
2.	Akin Belli A <i>et al.</i> ^[26] (2016)	Cross-sectional study of 1,119 young adults assessing stress, genetics, and premature hair greying (PHG).	Higher Perceived Stress Scale (PSS) scores were significantly associated with increased severity of PHG.	Positive maternal and paternal family history, alcohol consumption, chronic disease, hair loss, age, educational status.	Greying results from stress-induced oxidative damage accelerating melanocyte dysfunction in genetically predisposed individuals.
3.	Zhang B <i>et al.</i> ^[27] (2020)	Experimental mouse model; adrenalectomy, denervation, stem-cell-specific knockouts.	Acute psychological stress	Independent of immune attack or adrenal hormones.	Stress-induced sympathetic activation releases norepinephrine, driving melanocyte stem cell depletion and resulting in hair greying.
4.	Acer E <i>et al.</i> ^[28] (2020)	Case-control study including 60 PHG patients	Perceived Stress Scale (PSS), Beck Anxiety Index (BAI)	Systemic oxidative stress markers	PHG patients had higher oxidative stress and PSS scores, with anxiety

		and 60 age-matched controls, with assessment of oxidative stress			correlating positively with oxidative stress, indicating stress-related melanocyte damage.
5.	Poonia & Bhalla ^[29] (2024)	Narrative review of experimental, clinical, and epidemiological studies on PHG.	Psychological stress identified as a physical stressor contributing to oxidative burden.	Genetic predisposition, smoking, UV exposure, nutritional deficiencies, systemic diseases	Psychological stress likely contributes through oxidative imbalance, melanocyte stem cell depletion, and disrupted melanin production.
6.	Chaturvedi V et. al ^[30] (2025)	Cross-sectional study; 385 college students (18–25 years).	Stress, anxiety, depression assessed using DASS-21	Smoking, undernutrition, reduced sleep duration, academic burnout, poor quality of life	PGH had significantly higher stress, anxiety, and depression scores; PGH associated with poorer WHOQOL-BREF scores and higher burnout (MBI-SS), suggesting PGH as a visible marker of psychological distress

Bridging Ancient Wisdom with Modern Science: Integrated Pathophysiology

Based on the above review, the integrated pathophysiology of stress-induced hair greying can be hypothetically correlated as follows (Table No 2):

Table 2: Integrated Pathophysiology of Stress-Induced Hair Greying

Ayurvedic Parameter	Modern Biomarker / Mechanism	Clinical Significance
<i>Pitta Prakopa</i>	Elevated cortisol, HPA-axis hyperactivity	Impaired melanogenesis and pigmentary dysfunction
<i>Ama formation</i>	Increased oxidative stress markers	Melanocyte injury and apoptosis
<i>Vata Prakopa</i>	Catecholamine surge	Melanocyte stem cell exhaustion and niche depletion
<i>Ojas Kshaya</i>	Immune dysregulation, altered cytokine profile	Increased susceptibility to inflammatory and autoimmune damage to hair follicles

Comparative Ayurvedic and Contemporary Biological Model of Psychological Stress-Induced Palitya

This schematic presents a parallel progression of psychological stress-induced *Palitya* through Ayurvedic and contemporary biological frameworks (Fig. 1). While Ayurveda explains the condition through *Manasika Nidana*-driven *Dosha* imbalance, *Agni* dysfunction, and *Dhatu-Ojas* depletion, modern biology describes neuroendocrine activation, oxidative stress, and melanocyte dysfunction. Despite differing terminologies, both perspectives converge on a common stress-mediated pathogenic pathway leading to premature hair greying.

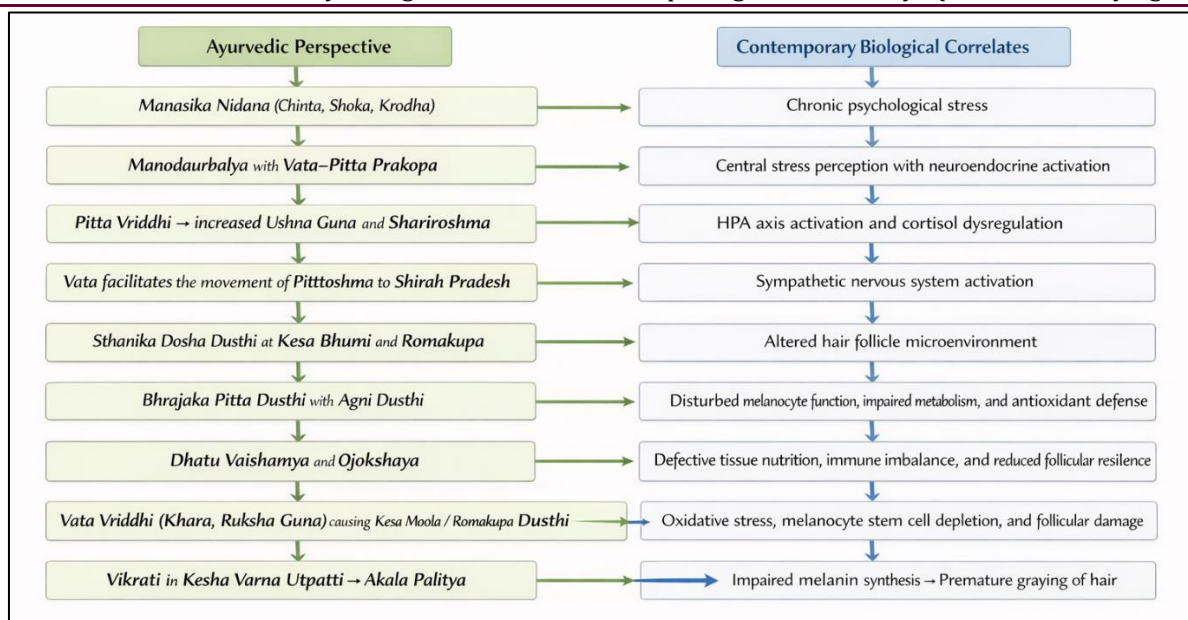


Fig. 1: Comparative Ayurvedic and Contemporary Biological frameworks of Palitya

DISCUSSION

Conceptual merging between Ayurvedic and Contemporary models

The present review highlights a conceptual convergence between classical Ayurvedic explanations of *Palitya* and contemporary biological models of stress-induced hair greying. While Ayurveda describes *Palitya* as a consequence of sustained *Manasika Nidana* leading to *Vata-Pitta* vitiation, *Agni Dushti*, *Oja Kshaya* and *Dhatu Kshaya*, modern research independently identifies psychological stress as a driver of neuroendocrine imbalance, oxidative stress, and follicular stem cell dysfunction. Importantly, although these two frameworks differ in their theoretical foundations, they appear to describe the same disease process at different levels of understanding.

Ayurveda’s emphasis on the *Shirah Pradesh* as a site of *Sthanika Dosha Dushti* aligns with modern recognition of the hair follicle as a highly stress-responsive neuroimmunoendocrine unit. The localization of pathology to *Kेशha Bhumii* and *Romakupa* in classical texts may be interpreted as an early recognition of the follicular niche as a vulnerable microenvironment where systemic stress manifests as structural and functional decline.

Psychological Stress as a Primary Etiological Factor

Traditionally, psychological stress has often been regarded as a contributory or precipitating factor in premature greying. However, the evidence synthesized in this review supports the interpretation that psychological stress may function as a primary etiological driver, capable of independently initiating pathogenic cascades leading to *Palitya*. Classical Ayurvedic texts explicitly prioritize *Chinta*, *Shoka*, and *Krodha* among the causative factors of *Palitya*,

suggesting that mental disturbances alone can precipitate disease even in the absence of overt nutritional or genetic abnormalities.

This perspective gains further relevance in the context of modern lifestyle patterns, where individuals presenting with premature greying frequently lack identifiable systemic illness yet report chronic psychological strain. Such observations strengthen the argument that *Palitya* can be conceptualized as a psychosomatic disorder, rather than a purely cosmetic or age-related phenomenon.

Oxidative Stress as a shared Pathogenetic Axis

A critical insight emerging from this review is the centrality of oxidative stress as a shared pathogenetic axis linking Ayurvedic and biomedical paradigms. In Ayurveda, *Pittoshma vriddhi*, *Ama* formation, *Oja Kshaya* and *Dhatu Kshaya* collectively denote a state of internal instability characterized by excessive heat, impaired metabolism, and tissue vulnerability. Contemporary studies describing increased reactive oxygen species, antioxidant depletion, and hydrogen peroxide accumulation in gray hair follicles provide a molecular correlate to this classical description.

Stem Cell Exhaustion and the Ayurvedic Concept of Kshaya

One of the most compelling modern findings in the field is the demonstration of melanocyte stem cell depletion under stress conditions. This phenomenon offers a striking parallel to the Ayurvedic concept of *Dhatu Kshaya* and *Ojo Kshaya*, wherein chronic stress leads to premature exhaustion of regenerative potential. From this viewpoint, premature greying represents not merely pigment loss, but an indicator of

early follicular aging driven by stress-induced overactivation and depletion.

Clinical and Preventive Implications

Reframing *Palitya* as a stress-mediated, systemic disorder carries important clinical implications. It shifts therapeutic focus away from isolated cosmetic correction toward early identification of psychological stressors and metabolic imbalance. Ayurvedic principles advocating *Satvavajaya* (psychotherapy), stress regulation, and *Ojas* preservation gain renewed relevance in this context, particularly for young individuals presenting with early-onset greying.

From a preventive standpoint, *Palitya* may serve as a visible clinical marker of chronic psychological strain, prompting clinicians to evaluate broader psychosomatic health rather than treating hair changes in isolation.

Directions for Future Research

The findings discussed here underscore the need for methodologically rigorous, interdisciplinary research. Prospective studies integrating psychological assessment scales, Ayurvedic diagnostic parameters, and biochemical stress markers are required to establish time-based and causal relationships. Additionally, clinical trials evaluating Ayurvedic interventions targeting *Manasika Nidana*, *Agni*, and *Ojas* could provide valuable evidence for integrative management strategies.

CONCLUSION

Manasika Nidana is a well-established etiological factor for *Palitya* in Ayurvedic literature, with contemporary research providing strong evidence for the role of psychological stress in premature hair greying. The convergence of classical concepts and modern biology highlights the need for a holistic approach integrating mental health care with physical treatment. Addressing psychological stress through Ayurvedic interventions alongside antioxidant and neuroprotective strategies offers a comprehensive framework for prevention and management, and supports the need for further clinical validation and pathophysiological exploration.

REFERENCES

1. Tobin DJ, Paus R. Greying: Gerontobiology of the hair follicle pigmentary unit. *Exp Gerontol* 2001; 36: 29-54.
2. Bhat RM, Sharma R, Pinto AC, Dandekeri S, Martis J. Epidemiological and investigative study of premature greying of hair in higher secondary and pre-university school children. *Int J Trichology*. 2013; 5: 17-21.
3. Pasricha JS, Verma K. Diseases of the appendages. In: *Treatment of Skin Diseases*. 5th ed. New Delhi: Mehta Publishers; 2008. p. 289.
4. Shastri A, editor. *Sushruta Samhita of Maharshi Sushrut, Nidanasthana*. Ch. 13, Ver. 36. Varanasi: Chaukhambha Sanskrit Sansthan; 2015. p. 369.
5. Mishra BS, editor. *Bhavaprakasa of Shri Bhamisra, Madhyama Khanda*, Ch. 61, Ver. 1. Varanasi: Chaukhambha Sanskrit Bhavan; 2015. p. 584.
6. Rosenberg AM, Rausser S, Ren J, et al. Quantitative mapping of human hair greying and reversal in relation to life stress. *Elife*. 2021; 10: 1–31.
7. Irradiation-induced hair greying in mice: an experimental model to evaluate the effectiveness of interventions targeting oxidative stress, DNA damage prevention, and cellular senescence. *Gero Science*. 2024; 46(3): 3105–3122.
8. Acer, E.; Kaya Erdogan, H.; Kocaturk, E.; Saracoglu, Z.N.; Alatas, O.; Bilgin, M. Evaluation of oxidative stress and psychoemotional status in premature hair greying. *J. Cosmet. Dermatol*. 2020; 19: 3403–3407.
9. Saxena, S.; Gautam, R.K.; Gupta, A.; Chitkara, A. Evaluation of Systemic Oxidative Stress in Patients with Premature Canities and Correlation of Severity of Hair Greying with the Degree of Redox Imbalance. *Int. J. Trichology*. 2020; 12: 16–23.
10. Boo, Y. C. Intrinsic and Extrinsic Factors Associated with Hair Greying (Canities) and Therapeutic Potential of Plant Extracts and Phytochemicals. *Applied Sciences*. 2024; 14(17): 7450.
11. Shastri KN, Chaturvedi GN, commentators. *Charaka Samhita of Agnivesha with elaborated Vidyotini Hindi Commentary*, Chikitsasthana. Ch. 26, Ver. 132. Varanasi: Chaukhambha Bharat Academy; 2015. p. 744.
12. Mishra BS, editor. *Bhavaprakasa of Shri Bhamisra, Madhyama Khanda*, Ch. 61, Ver. 1. Varanasi: Chaukhambha Sanskrit Bhavan; 2015. p. 584.
13. Paradakara HS, editor. *Ashtanga Hridaya by Vagabhatta, Uttarsthana*. Ch. 23, Ver. 29. Varanasi: Chaukhambha Surbharati Prakashana; 2016. p. 860.
14. Shastri KN, Chaturvedi GN, commentators. *Charaka Samhita of Agnivesha with elaborated Vidyotini Hindi Commentary*, Nidanasthana. Ch. 7, Ver. 4. Varanasi: Chaukhambha Bharat Academy; 2015. p. 656.
15. Shastri KN, Chaturvedi GN, commentators. *Charaka Samhita of Agnivesha with elaborated Vidyotini Hindi Commentary*, Sutrasthana. Ch. 17, Ver. 76. Varanasi: Chaukhambha Bharat Academy; 2015. p. 352.

16. Shastri A, editor. Sushruta Samhita of Maharshi Sushrut, Sutrasthana. Ch. 15, Ver. 28. Varanasi: Chaukhambha Sanskrit Sansthan; 2015. p. 80.
17. Shastri KN, Chaturvedi GN, commentators. Charaka Samhita of Agnivesha with elaborated Vidyotini Hindi Commentary, Vimanasthana. Ch. 2, Ver. 9. Varanasi: Chaukhambha Bharat Academy; 2015. p. 688.
18. Nunez, S. G., Rabelo, S. P., Subotic, N., Caruso, J. W., & Knezevic, N. N. Chronic Stress and Autoimmunity: The Role of HPA Axis and Cortisol Dysregulation. *International Journal of Molecular Sciences*. 2025; 26(20): 9994.
19. Spiers JG, Chen HJ, Sernia C, Lavidis NA. Activation of the hypothalamic-pituitary-adrenal stress axis induces cellular oxidative stress. *Front Neurosci*. January 2015; 19(8): 456.
20. Trueb RM. Oxidative stress in ageing of hair. *International Journal of Trichology*. 2009; 1: 6-14.
21. Arck PC, Overall R, Spatz K, Liezman C, Handjiski B, Klapp BF, et al. Towards a "free radical theory of greying": Melanocyte apoptosis in the aging human hair follicle is an indicator of oxidative stress induced tissue damage. *FASEB J*. 2006; 20: 1567-9.
22. Wood JM, Decker H, Hartmann H, Chavan B, Rokos H, Spencer JD, et al. Senile hair greying: H2O2-mediated oxidative stress affects human hair color by blunting methionine sulfoxide repair. *FASEB J*. 2009; 23: 2065-75
23. Zhang, B., Ma, S., Rachmin, I. et al. Hyperactivation of sympathetic nerves drives depletion of melanocyte stem cells. *Nature*. 2020; 577: 676-681.
24. Das S, Chander R, Garg T, Mendiratta V, Singh R, Sanke S. Cardiovascular risk markers in premature canities. *Indian J Dermatol Venereol Leprol* 2023; 89: 221-5.
25. Wood JM, Decker H, Hartmann H, Chavan B, Rokos H, Spencer JD, Hasse S, Thornton MJ, Shalbfaf M, Paus R, Schallreuter KU. Senile hair graying: H2O2-mediated oxidative stress affects human hair color by blunting methionine sulfoxide repair. *FASEB J*. July, 2002; 23(7): 2065-75.
26. Akin Belli A, Etku F, Ozbas Gok S, Kara B, Dogan G. Risk Factors for Premature Hair Graying in Young Turkish Adults. *Pediatr Dermatol*. July, 2016; 33(4): 438-42.
27. Zhang, B., Ma, S., Rachmin, I. et al. Hyperactivation of sympathetic nerves drives depletion of melanocyte stem cells. *Nature*. 2020; 577: 676-681.
28. Acer E, Kaya Erdoğan H, Kocatürk E, Saracoğlu ZN, Alataş Ö, Bilgin M. Evaluation of oxidative stress and psychoemotional status in premature hair graying. *J Cosmet Dermatol*. 2020 Dec; 19(12): 3403-3407.
29. Poonia K, Bhalla M. Premature Graying of Hair: A Comprehensive Review and Recent Insights. *Indian Dermatol Online J*. August, 2024; 15(5): 721-731.
30. Chaturvedi V, Sardesai S, Mansharamani B, Dwivedi K. Premature hair greying and its association with stress, anxiety, and depression among college students: a cross-sectional study. *J Popul Ther Clin Pharmacol*. 2025; 32(8): 305-312. Available from: <https://www.jptcp.com/index.php/jptcp/article/view/11475>

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