



## Review Article

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## ROLE OF PSYCHOLOGICAL FACTORS IN AKALA PALITYA: A REVIEW

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**ABSTRACT**

Hair contributes immensely to human personality. Healthy hair is a sign of a healthy personality. But nowadays, Premature greying is a common problem in the young population. Due to lifestyle changes, environmental changes, and psychological factors, premature greying of hair increases tremendously. Premature greying of hair is causing psychological disturbances in the young population. In Ayurveda, Krodha, Shoka and Shrama are the Maansika Nidana which causes vitiation of Doshas and leads to Palitya. Different scholars had explained Palitya along with its prevention and management. Psychological status in the young population is uncertain and prone to a significant mental health risk. During adulthood, the young population seems to face multiple stress and psychological issues due to life transitions and changes in personal relationships. Overburden at the workplace leads to increased incidence of psychological problems that alter health. Premature greying of hair needs attention to deal with these psychological issues. If all these factors are considered, it increases the chances of preventing Akala Palitya.

**Keywords:** Ayurveda, Palitya, Premature Greying of hair, psychological factor.

**INTRODUCTION**

Hair is a sign of beautification. Healthy hair plays an essential role in the physical appearance and self-esteem of a person. Haircare is the most important step for healthy and strong hair. In Ayurveda, scholars explained Kesha (hair) and its development during foetal life; in the sixth month, hair on the head and body become patent.<sup>1</sup> The basic concept of Ayurveda is based on Tridosha, Dhatu, Mala and their equilibrium<sup>2</sup>. After consuming the food, Jathargni (digestive energy) acts on it, then the formed productive nutrients (Ahara rasa) pass into each dhatu for nourishment by the influence of respective Dhatvagni. Metabolic wastes are produced during this process, named Dhatu Mala (tissue excreta)<sup>3</sup>. Kesha, Loma, Shamsru are considered mala of Asthi dhatu<sup>4</sup>, which supports the body.

**Table 1: Dhatu mala/updhatu as per different acharya**

Acharyas	Kesha	Dhatu
Charka	Mala	Asthi dhatu
Ashtanga Samgraha	Mala	Asthi dhatu <sup>5</sup>
Sharangadhara	Updhatu	Majja Dhatu <sup>6</sup>

**Hair Structure**

The colour and texture of Kesha (hair) vary in a different person, but single-stranded, soft, unctuous, deep-rooted, black hair are the qualities of excellent hair explained by scholars<sup>7</sup>. In modern medical science, Hair is one of the divergent traits of humans. One of the integumentary system components is hair, which extends downward into the dermal layer and resides in the hair follicle. Each hair has two separate structures –

- Hair shaft - Visible part outside of the skin.
- Follicle – This part lies underneath the surface of the skin.

Hair's structure can be divided into three parts- Medulla (innermost), cuticle (outer protective), cortex (the main component of hair containing keratin chains and melanin).

Above the epidermis level, the hair shaft is a thin, flexible structure of keratinized epithelial cells. Below it is a part of the hair follicle which enlarges at the base and forms the Hair bulb. Hair follicles have a supply of surrounding network of dermal nerves in that it is composed of both sensory afferents and autonomic sympathetic nerves. On stimulation, hair provides sensory information, enhancing tactile ability, whereas autonomic nervous innervation holds control of the arrector pili muscle. These muscles on contraction make the hair stand on end. The vascular supply of hair is by small arterioles originating in the subcutaneous fat. These blood vessels nourish the hair follicle by delivering oxygen and nutrients, eliminating waste and promoting growth.<sup>8</sup>

**Hair Pigmentation**

Hair varies in length, density and colour from person to person. Hair contains two types of melanin pigment responsible for hair colour. One is Eumelanin (black, brown pigment), and another is pheomelanin (yellow or red pigment). The hair cortex contains melanin made by specialised cells called melanocytes. Precise sequential interaction between follicular melanocytes, matrix keratinocytes and dermal papilla fibroblast results in pigmentation in hair follicles of adults. It involves the melanogenic activity of follicular melanocytes, the transfer of their product, melanin granules into cortical and medullary keratinocytes, and the formation of pigmented hair shaft<sup>9</sup>. In older age, Melanin production decreases and hair turns grey, but other factors turn hair grey at an early age.

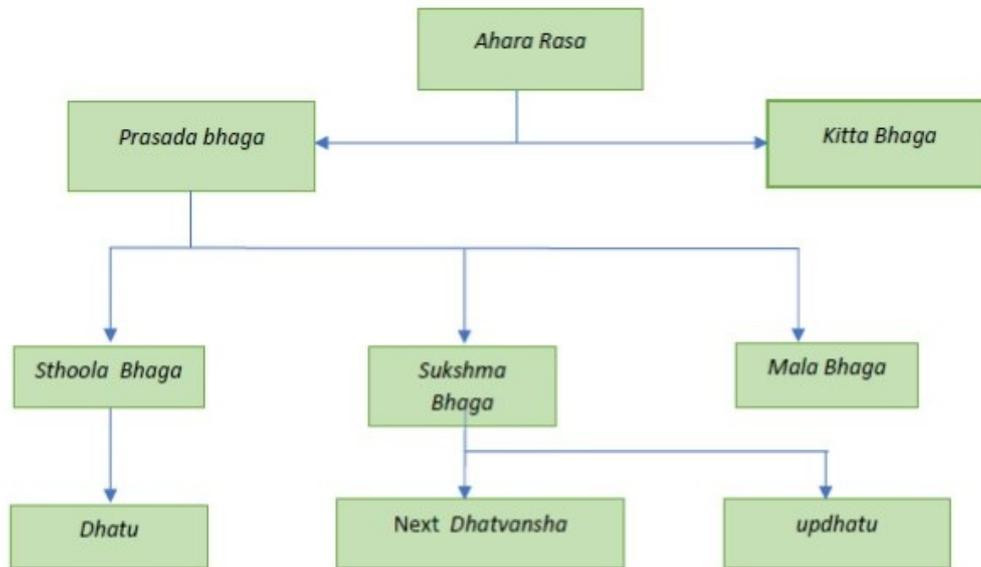


Fig 1: Process of digestion of food

In the recent era, health is deteriorating daily, including hair health. Lifestyle changes, psychological factors are responsible for hair issues like hair fall, hair thinning, baldness, early greying of hair. One of them is premature greying of hair, i.e. before the age of 20 years in Caucasians and before 30 years in African American population<sup>10</sup>. According to Ayurveda, Shoka, Krodh, Mansika Shrama are the psychological factors that result in Palitya. It is considered as Kshudra roga by Acharya Sushruta<sup>11</sup>.

#### Premature Greying (Akala Palitya)-

A thousand years back, Ayurveda highlighted this issue and was categorized under Palitya. Greying of hair is called Palitya, which is of two types, i.e. Akala Palitya (Premature grey hair) and Kala Palitya (Senile grey hair).

Acharya Charaka mentioned Palitya under Shirogata vyadhi. In Trimarmiya Chikitsa, Palitya is described as a disease where Teja of the body along with Vayu and other Doshas scorches the hair roots which causes Khalitya, whereas partial scorching gives rise to Palitya.<sup>12</sup>

Sushruta opines that Anger (Krodha), Grief (Shoka) and Mental stress (Mansika Shrama) vitiate the Pitta dosha of the body and drives it towards the head and results in Palitya.<sup>13</sup>

As per Vridha Vagbhata, Heat of the body moving in the head gets mixed with Doshas and ripens the hair, thereby causing Palitya.<sup>14</sup>

As per Bhel Samhita, When the vitiated Doshas Vata, Pitta and Kapha move above in one's head, causing burning of hair root gives rise to Palitya. Long-distance walking, heavy weight lifting or old age leads to fatigue and thereby cause Khalitya and Palitya. Acharya Bhela described five types of Palitya.<sup>15</sup>

#### Role Of Manas Doshas

Many factors are responsible for premature greying hair, like environmental, genetic, nutritional and psychological factors. Ayurveda describes three gunas of Mind, namely Satwa (Balance), Raja (Arrogance) and Tama (Indolence). Mind is called 'Manas'. The occurrence of the disease is possibly due to

an imbalance of the 'Tamas' or 'Rajas' in mind, which are the reactive tendencies that vitiate the reason leading to emotional imbalance and may also result in psychological disturbances; hence Rajas and Tamas are termed as 'Doshas of mind'.<sup>16</sup> Increase in Rajas leads to excessive anger, jealousy etc.,<sup>17</sup> and increase in Tamas leads to grief, slothfulness etc.<sup>18</sup> Negative feelings are emotional toxins that accumulate in the mind. If they are not driven out of the body at the appropriate time and keep on collecting for a longer duration, they give rise to or may lead to various mental issues.

#### According To Ayurveda

- "Volitional transgression (prajnaparadha)" is "the main etiopathological factor" in mental illness. Error in three faculties Dhi (intelligence), Dhriti (restraint) and Smriti (memory) can lead to intellectual disturbance<sup>19</sup> such as Kama, Krodh, Lobha, Bhrama, Tandra, Murchha, Sanyans, Maddattaya etc.<sup>20</sup>
- There are three types of indulgence (Atiyoga, Ayoga and Mithayoga) in three different activities (Kayika, Vachika and Mansika).<sup>21</sup>

#### Indulgence

Ayoga- (Inadequate Functioning)

Atiyoga- (Excessive Functioning)

Mithayoga- (Improper Functioning)

#### Modern Point of View

Psychological issues are not exclusive to any group. They are found in every person irrespective of age, gender, race etc. Mental and behavioural disorders are present in about 10% of the adult population worldwide.<sup>22</sup> Any negative past life experience, unfavourable workplace, monotonous life with overgeneralisation and giving more importance to emotional response rather than objective evidence etc., leads to psychological issues like stress, anxiety, anger, grief etc.

Hair follicles have a supply of surrounding network of dermal nerves in that it is composed of both sensory afferents and autonomic sympathetic nerve. The sympathetic nervous system and the parasympathetic nervous system are the two divisions of the autonomic nervous system. The sympathetic nervous system

(SNS) works unconsciously to regular many body functions. SNS governs the fight and flight response to prepare the body to react to that particular stimulus. Pre-ganglionic and postganglionic neurons are involved in the transmission of signals through SNS. Pre-ganglionic neurons arise from the thoracolumbar division of the spinal cord and travel to para-vertebral ganglia, where they synapse with post-ganglionic neurons. The post-ganglionic neuron then transmits to the whole body. At paravertebral ganglia, acetylcholine is released by pre-ganglionic neurons, which activates nicotinic acetylcholine receptors present on post-ganglionic neurons. On the activation, post-ganglionic neurons release norepinephrine, which activates adrenergic receptors present on the target tissue.<sup>23</sup>

In premature greying, the sympathetic nervous system transmits signals which play a vital role in stress-anger induced greying. Until a new hair is grown, melanocyte stem cells remain in an inactive form in the follicle. Sympathetic nerves release nor-adrenaline in response to stress which activates the stem cells. It has been observed that stem cells change to melanocytes and migrate away from their reserved site in the hair follicle. No new pigment cells can be formed without stem cells, and hair becomes grey and white.<sup>24</sup> Due to this process, premature greying of hair occurs, which can't revert to its original form without any treatment. In this manner, psychological factors and environmental, nutritional and lifestyle changes are responsible for premature greying.

## DISCUSSIONS

Premature greying of hair (Akala Palitya) is nowadays a burning issue. One of the leading factors responsible for premature greying is psychological issues like grief, anger, excessive mental exertion(stress). Due to these factors, vitiation of the Pitta dosha of the body and Vata drives it towards the head and results in Palitya. The primary entity involved in Akala Palitya is Vata and Pitta dosha. Vata, Pitta, Kapha are the three Doshas that maintains the body. Vata dosha is dry, cold, constantly moving, light, minute (Sukshma),<sup>25</sup> and is concerned with all movements, initiating and controlling factors Sensory and motor functions. Pitta dosha is slightly unctuous, hot (Ushna), mobile, swift (Teekshna), sour and pungent.<sup>26</sup>

It is concerned with metabolic and biochemical processes. Skin colour and melanocytes functioning is also governed by Pitta (Bhrajka Pitta). Prolonged Anger-stressful conditions lead to sympathetic stimulation (Vata) and release Nor-adrenaline, which migrate melanocytes (Pitta) from their reserve. Thus, no new pigment can be formed, which leads to no new pigment greying of hair. Vata can be related to the Sympathetic and parasympathetic nervous system, which controls all the activities and transmit signals to all body parts. In stressful environments, sympathetic stimulation releases nor-adrenaline, which is under the control of Vata dosha. Melanin secreted from melanocytes provides pigmentation to skin and hair, which resembles to function of Pitta dosha (Bhrajka Pitta). Bhrajka Pitta is a subtype of Pitta dosha responsible for imparting colour, texture, and complexion to the skin.<sup>27</sup> In stressful situations, melanocytes migrate from their reserve site, which leads to greying of hair. Stress, anger, and excess mental exertion contribute to premature greying of hair in the young population. Both physical and psychological state contributes to health as a whole, and so much of what we do mentally impacts us physically. Hence, Mental health issues significantly increase the risk of physical health problems and vice-versa. As per the aim of Ayurveda, maintain the health of healthy individuals and treatment of diseased people.<sup>28</sup>

This can be achieved by Ahara, vihara and Achara. Among these, Ahara is given prime importance. Avoidance of excess Pitta Prakopaka, Rajasika, Tamasika Ahara, which aggravates Doshas, leads to disease manifestation. By following the rules of taking Ahara, the quantity of Ahara and wholesome food mentioned in Ayurveda, one can prevent an imbalance of Doshas. Following Sadvritta Niyama<sup>29</sup> (code of proper conduct) like Yoga, Pranayama, intake of healthy food etc., consequences of prajnapradha (volitional transgression) can be avoided. Appropriate utilisation of Sadvritta can prevent various types of physical and psychological issues and help achieve a healthy life in terms of the physical, psychological and social aspects. The effectiveness of a healthy body can be attained by health regimens (Swasthvirta), correct behaviour (Sadvritta), and Yoga. Sattvavajaya as psychotherapy, is the "mind control" or self-restraint as explained by Caraka, is achieved through "spiritual knowledge, courage, philosophy, reminiscence and concentration".<sup>30</sup> Treatment like shodhana of the body which includes Vamana, Virechana, Raktamokshana along with the local application of Lepa, Shiroabhyanga and Nasya and internal medicinal use have been suggested in Ayurveda.<sup>31</sup>

## CONCLUSION

Palitya is mentioned in all significant textbooks of Ayurveda. Doshas involved in pathogenesis are Vata and Pitta. Factors responsible for the Palitya are Pitta Prakopaka Ahara (amla, lavana, katu rasa) and Vihara (Krodha, Shoka, Shrama). Due to psychological factors, there is vitiation of Doshas, which leads to Palitya. To cope with this, Ayurvedic procedures like Vamana, Virechana, Nasya and proper diets are helpful. Lifestyle changes and less mental burden and reduce anxiety and stress through Yoga. The mental attitude, a person's mental status, has a significant role in curing every disease, and it directly affects its prognosis.

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