



## Review Article

## A critical review of concept of aging in Ayurveda

Durgawati Devi<sup>1</sup>, Rajeev Srivastava<sup>2</sup>, B. K. Dwivedi<sup>3</sup>

<sup>1</sup>Lecturer, Department of Swasthavritta and Yoga, National Institute of Ayurveda, Jaipur, Rajasthan, <sup>2</sup>Lecturer, Department of Basic Principles, Pt. K.L.S. Government (Auto.) Ayurvedic College & Institute, Bhopal, Madhya Pradesh, <sup>3</sup>Reader, Department of Basic Principles, Faculty of Ayurveda, Institute of Medical Sciences, Faculty of Ayurveda, Varanasi, Uttar Pradesh, India

## Abstract

Ayurveda has a holistic approach toward all the miseries of man and aging is one of these. It is classified as one of the natural and *Yapya* (palliative) diseases. It is the process of becoming old and decaying. As age advances, several changes take place in the body, in the external appearance, in the condition of *Dosha, Dhatu, Mala, Agni, Oja*, and so on, as well as in the mental and cognitive functions. Elderly people are susceptible to several chronic diseases also. The problems of the elderly are becoming a matter of great concern as increased life expectancy due to better medical services and improved technology is resulting in an increasing population of the aged. By the year 2020, the World will have more than one billion people aged 60 and over, and more than two-thirds of them will be living in the developing countries. A major concern related to the rapid increase in the population of the aged is that there will be an increase in the prevalence of chronic diseases and disabilities, both being conditions that tend to accompany the aging process. This burden is increasing day by day. In the Ayurvedic texts, a comprehensive description has been given of aging. The aim of this conceptual article is to compile and re-evaluate the various principles related to different aspects of aging.

**Key words:** Aging, *Yapya*, Ayurveda, *Jara*, *Vridhdhavastha*

## Introduction

Ayurveda was introduced to the earth so that man could enjoy a long and healthy lifespan.<sup>[1]</sup> Several types of principles have been described in Ayurveda. A person interacts with various factors, for example, other *Panchabhautik* (manifested) creations, living or non-living. It is known that at the base of all creation, there are nine *Dravya*, (causative factors)<sup>[2]</sup>: that is, *Panchamahabhuta* (space, air, fire, water, and earth); *Mana* (mind); *Atma* (soul); *Kala* (time); and *Disha* (directions). *Panchamahabhuta* provide the basic structure for all the manifestations and this manifested creation, is known as the universe. The universe resides within the limitations of *Kala* and *Disha* in a clockwise manner. Among all the *Dravya*, *Kala* is the most important and potent, as it includes all creation in itself as well as it affects all creation in a clockwise manner, and human beings are no exception.<sup>[3,4]</sup> *Kala* interacts with a human from conception till death and this time period is called *Ayu* (lifespan). On account of the interaction of

*Kala*, various changes occur in the body during the period of *Ayu*; these are natural and cannot be changed. According to the type of changes that occur, the lifespan has been divided into three parts, also known as *Vaya* (various stages of life); these are *Bala* (early stage of life), *Madhya* (middle stage of life), and *Jirna* or *Vridhdhavastha* (later stage of life). The major changes carried out in the body during these stages are, growth, achievement, maintenance and decay. Thus, aging is the process of decaying and this manifests in the form of various degenerative changes. Although these changes are natural, they are not pleasant. Everyone is aware that a person who has taken birth must grow and finally die, but nobody wants to grow old and certainly no one wishes to die. It is the nature of a human being. Ayurveda considers all these states, which are not pleasant in nature, to be disease: they cause suffering to mankind and any suffering is termed as a disease.

Ayurveda takes a holistic approach toward the maintenance of *Dhatusamy* (homeostasis), for which various principles have been described. Aging is considered as a disease that may be manifested timely or untimely. Therefore, a detailed description regarding the prevention, maintenance, and treatment of aging has been given. Some of the measures that have been advised can be followed and some cannot. However, we can follow some practical principles and make aging comfortable and disease-free.

**Address for correspondence:** Dr. Durgawati Devi, Lecturer, Department of Swasthavritta, National Institute of Ayurveda, Madhav Vilas Palace, Amer Road, Jaipur - 302002, Rajasthan, India.  
E-mail: dvd6197@gmail.com

## Aims and Objectives

1. To re-evaluate, discuss, and elaborate the various Ayurvedic concepts and principles related to aging.
2. To understand the health-related problems of the elderly; aging is a natural and *Yapya* (palliative) disease and also a risk factor for many diseases.

## Materials and Methods

This article is based on a review of Ayurvedic texts. Materials related to aging, *Vaya*, and other relevant topics have been collected. The main Ayurvedic texts used in this study are *Charak Samhita*, *Sushruta Samhita*, *Ashtang Samgraha*, *Ashtang Hridaya*, *Bhava Prakash*, and *Sharangdhar Samhita*, and available commentaries on these. We have also referred to the modern texts and searched various websites to collect information on the relevant topics.

## Conceptual study

### Concept of *Vridhdhavastha* (later stage of life)

*Vridhdhavastha* is the last part of the lifespan and is mainly characterized by degenerative changes. Aging refers to a multidimensional process of physical, psychological, and social change. The changes are always degenerative in nature.<sup>[5-8]</sup> According to Ayurveda the lifespan of an individual is divided into three parts known as *Vaya*. These are *Balavastha* (childhood), which lasts up to the age of 16 years; *Madhyavastha* (young and middle age), which lasts from the age of 16 years to 60–70 years; and *Vridhdhavastha* or *Jirnavastha* (old age), which refers to the period after 60 or 70 years.<sup>[9-11]</sup> Thus, every person will pass through a period when various decaying changes will take place, and this time period is known as *Vridhdhavastha*. This stage is characterized by decay in the body, *Dhatu* (various anatomical tissues), perception power of the *Indriya* (sensory and motor organs), potency, strength, speech, various mental and cognitive functions (e.g., memory, intellect, reception, retention, analytic ability, etc.). During this phase there is predominance of *Vaayu Dosha* (one of the three physiological body factors). The major physical changes seen at this time are wrinkling of skin, graying of hair, baldness, and a diminishing ability to do physical work.<sup>[12]</sup> The diseases that complicate this stage are *Kasa* (cough), *Shwas* (asthma), and so on.<sup>[13,14]</sup>

*Vridhdhavastha* may be of two types: timely (if it manifests after the age of 60 – 70 years) or untimely.<sup>[15]</sup> Untimely aging may result due to aggravation of *vata* and *pitta dosha*. Therefore, excessive utilization of all the causes of *vata-pitta* aggravation may lead to untimely aging. Some instances are causes of *Rajayakshma* (a syndrome with deficient immunity), carelessness regarding prescribed regimen of *tryopstambha* (diet, sleep, and coitus), causes of *ojo-kshya* (deficient immunity), excessive and single use of *Amla*, *Lavana*, *Katu*, *Tikta*, and *Kashaya rasa* in diet.

## Pathophysiology

There are various theories regarding the pathophysiology of aging in modern medicine, but we will limit ourselves to the Ayurvedic point of view. Growth, development, and maintenance of the anatomy and physiology of the body is completely dependent on four factors: *Kala* (time), *Swabhava* (nature), diet (which should be excellent in the terms of nutrients), and absence of obstructive factors in the growth and

development of the body.<sup>[16]</sup> Among these, diet is very important as it nourishes *Dhatu* and is responsible for the maintenance of compactness, strength, and formation of an excellent form of *dhatu*. This excellent form of *dhatu* reflects in the terms of *Sara* (absoluteness of body tissues), which makes a person look young and beautiful.<sup>[17,18]</sup> When the diet is defective in the terms of *Gramya-Ahara* (a deficient and unplanned diet) and when the rules are not followed regarding diet as well as lifestyle (i.e., when there is indulgence in day sleep, daily coitus without *Vaajikarana* (aphrodisiacs), daily alcohol drinking, excessive physical work, lack of exercise, mental and emotional fluctuations, etc.), then as indicated by Acharya Charak in the second *Pada* (sub-chapter) of *Rasayan* (rejuvenation) there is vitiation of *Tridosha*, which leads to various progressive pathological changes due to improper utilization of the diet. These pathological changes include loss of compactness of the muscles, looseness of joints, vitiation of *Rakta* (blood), excessive production of *Meda* (fatty tissue), failure of *Majja* (marrow) accumulation in bones, failure of production of *Shukra* (semen), and loss of *Oja* (vital factor). This pathology leads to various symptoms; for example, no enthusiasm due to increase in sleep, drowsiness, and lethargy; the respiratory rate is increased; the person is unable to initiate and perform physical and mental work; the memory, intellect, and complexion deteriorate; and the person become susceptible to various types of diseases and fails to live out his complete lifespan.<sup>[19]</sup> When all these changes are produced according to *Kala* (time) and *Swabhava* (nature), it is known as *Kalaja Vridhdhavastha* (natural aging). These changes can be slowed down and avoided and thus this stage may be prevented; if the changes have already manifested, they can be managed. When these changes are produced due to defective diet and lifestyle, *Vridhdhavastha* begins earlier and it is then known as *Akalaja Vridhdhavastha* (untimely aging). It can be managed and treated. *Kalaja Vridhdhavastha* can also be treated, but the measures that are described for it are very difficult to perform and impractical in the current era, and besides, the medicines that have been described for the treatment of *Kalaja Vridhdhavastha* are either unavailable or are controversial.<sup>[20]</sup> However, in our opinion, it is possible to treat *Kalaja Vridhdhavastha*, if the treatment principles are followed exactly as described in the texts.

## Prevention of aging

Due to limitations of space, only the principles are described here. As previously stated, the process of aging is totally dependent on diet and lifestyle. Aging can be prevented by:

1. Including some important principles of *Dincharya* (daily regimen) in the daily routine, for example, *Anjana* (a type of eye treatment); *Abhayanga* (body massage);<sup>[21]</sup> especially *Shiro-Abhayanga* (head massage);<sup>[22]</sup> *nasya* (oily nasal drops);<sup>[23]</sup> *Sneha-Gandusha* (retaining of oil in the mouth);<sup>[24]</sup> cleansing of feet and external orifices;<sup>[25]</sup> exercise;<sup>[26]</sup> and so on.
2. By following the other principles of *Swasthavritta* such as utilization of *Tryopastambha* (diet, sleep, and coitus) according to the rules;<sup>[27]</sup> to bear suppressible urges (i.e., mental fluctuations) and to expel unsuppressible urges (i.e., natural urges);<sup>[28,29]</sup> regular removal of aggravated *Dosha* according to *Ritu* (season) by *Panchakarma*;<sup>[30]</sup> regular utilization of *Rasayana* (rejuvenating treatment) and *Vaajikarana* (aphrodisiacs);<sup>[31]</sup> following the principles

of *Sadvritta* (social and personal ethics) and *Acharya Rasayana* (ethics having effects of *Rasayana*), and so on.<sup>[32]</sup>

3. Taking a diet strictly in accordance with the prescribed rules.<sup>[33]</sup>

### Management of aging

It is a natural and *Yapya* (palliative) disease; it occupies the prime place among the *Yapya* diseases in the context of *Agrya dravya* (foremost) described in *charak sutrasthana* chapter 25.<sup>[34]</sup> It is essential to manage this period of aging properly, as it is a time of increased susceptibility to various chronic and degenerative diseases. The following principles can be considered in this context:

1. Keep the lifestyle as close as possible to the ideal prescribed by Ayurveda.
2. Avoid the provocative causes of *Kshaya* (degeneration) and *Vata*, for example, excessive physical and mental work, vigorous exercise, tolerance of unsuppressible urges, intolerance of suppressible urges, and so on.
3. Follow, as far as possible, all the rules regarding diet; take a *Laghu* (light) and *Santarapaka* (nutritive) diet.
4. Utilization of *Rasayana*, *Vaajikarana*, and *Yapana Vasti*<sup>[35,36]</sup> (a type of enema having palliative property) regularly.
5. Follow the principles of *Sadvritta* and *Acharya Rasayana*.<sup>[37]</sup> Involve oneself in the Supreme Power (God) or the eternal truth by any means as it increases the level of *satva* in mind. Thus all these things improve mental immunity.
6. If any disease persists or manifests, take treatment promptly.

### Treatment of aging

Aging is considered a kind of disease and its treatment has been clearly described in various Ayurvedic texts. Even in *Sushruta Samhita*, there is a chapter titled *Swabhavavyadhipratishedhiya*, in which *Rasayana Chikitsa* (rejuvenating treatment) is described. In this chapter, various treatment principles for natural diseases have been mentioned. Treatment principles related to aging are completely dependent on *Rasayana*<sup>[38,39]</sup> as exemplified in the famous story of *Maharishi Chayawana*. However, some *Vaajikaran* formulations are also useful, especially in the context of coitus.<sup>[40]</sup> If *Rasayana* therapy is used according to the classical methods, and if the correct drugs are available, it will be quite possible to treat aging successfully. However, the methods described are impractical and cannot be followed in this era, due to various reasons: for example, drugs are either unavailable or are less effective, the lifestyle of the people is fast and busy, there is a low level of *Satva* or defective mental constitution, and so on.

### Discussion

Aging is a natural phenomenon, but nobody wants to grow old — a dilemma that everyone faces. In Ayurveda, every condition (whether transient or persistent) that leads to a disturbance of homeostasis is termed as a disease.<sup>[41-43]</sup> Thus, *Vridhdhavastha* has also been considered as a disease: It is categorized under the head of natural diseases. These natural diseases are due to *Swabhava* (nature) and depend on *kala* (time). The examples of natural diseases are hunger, thirst, *Jaravastha* (old age), death, and the like.<sup>[44,45]</sup> Although, nobody can escape these diseases, they can be modified. If a person can cross the limitations of

time successfully with the practice of *yoga* and *samadhi*, he can escape aging and death. However, such a person will need to have a very superior level of consciousness,<sup>[46]</sup> which is quite impossible in this current era. Ayurveda is a medical science and we are talking about ordinary people. Thus, we have to consider only those measures that can be followed by an average person and physician, and besides, they must be measures that are practicable also. With such measures it is possible to prevent premature aging, to slow down the process of aging, to manage this period by palliative treatment, and treatment of *Vridhdhavastha* is also possible as per the classical methods from *Ayurvedic* texts.

Thus, it is clear that a comprehensive description of aging and its prevention and treatment have been given in the classical Ayurvedic texts. *Aptopadesha* (textual knowledge) is the first step to the path of acquisition of knowledge. Therefore, let us step forward in the light of *Aptopadesha* and offer our services to mankind.

### Conclusion

Aging is a natural process; the body is decaying continuously, as shown by its etymology, that is, *Shiryate Iti Shariram*. Untimely aging is wholly preventable if the principles of Ayurveda are strictly followed. The pathophysiology of aging is mostly dependent on diet, and therefore, this process of aging can be slowed down by correct diet planning. *Vridhdhavastha* can be managed by palliative treatment. It is even possible to treat *Vridhdhavastha* according to the principles of *Rasayana*, especially according to *Swabhavavyadhipratishedhiya* chapter of Sushruta Chikitsasthan. Though this is only a conceptual study, but the information provided can be utilized in various experimental and clinical studies.

### References

1. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sutrasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 1. 10
2. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sutrasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 1. 19.
3. Susruta, Susruta Samhita, Ayurvedatvatvasandipika. Sastri A, editor. Sutrasthan. Varanasi: Chaukhamba Sanskrit Samsthana; 2001. P. 20.
4. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sutrasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 233.
5. Harrison's Principles of Internal Medicine. Fauci, Braunwald, Isselbacher, Wilson, Martin, Kasper, Hauser, Longo, editors. 14<sup>th</sup> ed. Health Professions Division, McGraw-Hill; 1998. P. 37-9.
6. K Park. Park's Textbook of Preventive and social medicine. 19<sup>th</sup> ed. Jabalpur: Banarsidas Bhanot Publishers; 2008. p. 434-6.
7. <http://en.wikipedia.org/wiki/Ageing>. [Downloaded at 6<sup>th</sup> January, 2010].
8. <http://en.wikipedia.org/wiki/Senescence>. [Downloaded at 6<sup>th</sup> January, 2010].
9. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Vimansthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 782.
10. Susruta, Susruta Samhita, Ayurvedatvatvasandipika. Sastri A, editor. Sutrasthan. Varanasi: Chaukhamba Sanskrit Samsthana; 2001. P. 135.
11. Vagbatt, Astang Hridya, Vidvanamanoranjini. Sastri K, Tripathi I, Tripathi S, editors. Sharirasthan. Varanasi: Krishnadas Academy; 1994. P. 38.
12. <http://www.skincarephysicians.com/agingskinnet/basicfacts.html>. [Downloaded on January 6<sup>th</sup>, 2010].
13. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Vimansthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 782.
14. Susruta, Susruta Samhita, Ayurvedatvatvasandipika. Sastri A, editor. Sutrasthan. Varanasi: Chaukhamba Sanskrit Samsthana; 2001. P. 135.

15. Susruta, Susruta Samhita, Ayurvedatvatvasandipika. Sastri A, editor. Sutrastahan. Varanasi: Chaukhamba Sanskrit Samsthana; 2001. P. 101.
16. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 900.
17. Susruta, Susruta Samhita, Ayurvedatvatvasandipika. Sastri A, editor. Sutrastahan. Varanasi: Chaukhamba Sanskrit Samsthana; 2001. P. 105.
18. Shastri R. Swasthavrittassamuchhya. Misra AD, editor. 11<sup>th</sup> ed. Kamalawas, Assi, Varanasi: 1985. P. 41.
19. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Chikitsasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 22.
20. Susruta, Susruta Samhita, Ayurvedatvatvasandipika. Sastri A, editor. Chikitsasthan. Varanasi: Chaukhamba Sanskrit Samsthana; 2001. P. 126-129.
21. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 129.
22. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 127.
23. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 123.
24. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 127.
25. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 167.
26. Susruta, Susruta Samhita, Ayurvedatvatvasandipika. Sastri A, editor. Chikitsasthan. Varanasi: Chaukhamba Sanskrit Samsthana; 2001. P. 107-8.
27. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 227.
28. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 160.
29. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 897.
30. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 168.
31. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 169.
32. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 170-1.
33. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 575.
34. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 469.
35. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Siddhistan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 1096-1099.
36. Vagbhatt, Astang Hridya, Vidvanamanoranjini. Sastri K, Tripathi I, Tripathi S, editors. Kalpasthan. Varanasi: Krishnadas Academy; 1994. P. 377-378.
37. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Chikitsasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 58.
38. Agnivesha, Charak Samhita, Vidyotini. Shastri K, Chaturvedi G, editors. Chikitsasthan. Varanasi: Chaukhamba Bharti Academy; 1998. p. 1-64.
39. Vagbhatt, Astang Hridya, Vidvanamanoranjini. Shastri K, Tripathi I, Tripathi S, editors. Uttartantra. Varanasi: Krishnadas Academy; 1994. p. 616-639.
40. Vagbhatt, Astang Hridya, Vidvanamanoranjini. Sastri K, Tripathi I, Tripathi S, editors. Uttartantra. Varanasi: Krishnadas Academy; 1994. p. 643.
41. Susruta, Susruta Samhita, Ayurvedatvatvasandipika. Sastri A, editor. Sutrastahan. Varanasi: Chaukhamba Sanskrit Samsthana; 2001. p. 64.
42. Amar Singh, Amarkosha Raamaashrami. Panasikar V.L. editor, Varanasi: Chaukhamba Sanskrit Pratishthan, 1995. P. 388.
43. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 192.
44. Susruta, Susruta Samhita, Ayurvedatvatvasandipika. Sastri A, editor. Sutrastahan. Varanasi: Chaukhamba Sanskrit Samsthana; 2001. P. 101.
45. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 826.
46. Agnivesha, Charak Samhita, Vidyotini. Sastri K, Chaturvedi G, editors. Sarirasthan. Varanasi: Chaukhamba Bharti Academy; 1998. P. 834.