# OPTIMIZING AGING THROUGH AYURVEDIC DIET AND LIFESTYLE: A NARRATIVE REVIEW

Dr. Sholly Elizabeth Kuruvilla <sup>1</sup> D, Dr. Padmaveer P.S <sup>1</sup> D, Dr. Rompicherla Vishnu Priya <sup>1</sup> D, Dr. Arpit Sah <sup>1</sup> D, Dr. Sandeep S Sagare <sup>1</sup> D

<sup>1</sup> BAMS, Postgraduate Scholar, Department of Swasthavritta & Yoga, KAHER's Shri BMK Ayurveda Mahavidyalaya, Belagavi, Karnataka, India





#### **Corresponding Author**

Dr. Sandeep S Sagare, sandeepsagare@gmail.com

#### DOI

10.29121/shodhkosh.v5.i3.2024.367

**Funding:** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

**Copyright:** © 2024 The Author(s). This work is licensed under a Creative Commons Attribution 4.0 International License.

With the license CC-BY, authors retain the copyright, allowing anyone to download, reuse, re-print, modify, distribute, and/or copy their contribution. The work must be properly attributed to its author.



### **ABSTRACT**

Ayurvedic dietary principles in geriatrics prioritize balanced nutrition to support longevity and counteract the physiological changes of aging. With aging, Ayurveda also emphasizes the need for Vata-pacifying foods—those that are warm, moist, and easily digestible—to balance the predominant *Vata* dosha in later life stages. This approach includes cooked grains like rice and barley, warm vegetable dishes and nourishing soups, which aid in digestion and absorption of nutrients. Specific herbs like Amalaki (Emblica officinalis), Ashwagandha (Withania somnifera) etc are incorporated for their rejuvenating effects, antioxidant properties, supporting immune function and cellular integrity. The Ayurvedic concept of Pathyahara (wholesome diet) aligns closely with modern nutritional needs by emphasizing nutrient-dense, antioxidant-rich foods that mitigates oxidative stress—a key factor in aging. Adapted to the individual's digestive capacity, seasonal changes and lifestyle, Ayurvedic geriatric diet aims to enhance vitality, prevent malnutrition and also to support cognitive as well as physical health. By merging traditional dietary practices with insights on cellular health, particularly in the context of telomere preservation, Ayurveda provides a holistic framework for geriatric health care that complements contemporary understanding of nutrition and longevity. This integration of ancient wisdom with the modern science underlines Ayurveda's comprehensive approach to promote a healthy and balanced life in the elderly.

**Keywords:** Geriatrics, *Vaya*, *Pathyahara*, *Vihara*, *Jara*, Nutrition

### 1. INTRODUCTION

The term "geriatrics" comes from the Greek words "Geri," meaning old age, and "Iatrics," meaning care. Interestingly, it also connects with the Sanskrit word "Jiryadi," which signifies degeneration. This ancient science of Ayurveda emphasizes the holistic well-being of older adults, integrating both physical and mental health in the process of aging.[1] Aging is a universal phenomenon that has intrigued humanity for centuries. As a natural process in the lifespan of all organisms, aging is a key focus in Ayurveda, which is essentially the science of life and longevity. Geriatric health care, therefore, is one of its primary concerns. Life itself is a time-bound journey: we are born, grow into adulthood, enter senility and eventually pass away. [2] The aging of the global population presents significant challenges for medical care

and health systems. According to the United Nations, the proportion of people aged 60 years and older is projected to increase from 1 in 10 today to 1 in 5 by 2050. Moreover, by mid-century, the ratio of individuals aged 65 years and older to those aged 15–64 years will double in developed countries and triple in developing ones.[3] Ayurveda takes a holistic approach to address the challenges of human life, with aging being one of its primary concerns. Aging is classified as a natural and *Yapya* (palliative) condition, marked by the gradual process of decay and decline. As we age, various changes occur within the body, affecting our external appearance, the balance of *Dosha, Dhatu, Mala, Agni, Ojas,* and even our mental and cognitive functions. The elderly individuals are also more vulnerable to chronic diseases. The growing population of older adults, fuelled by increased life expectancy due to advancements in medical care and technology, has made the challenges faced by the elderly a pressing concern.[4]This demographic shift urges us to confront the changes that come with aging and to explore different anti-aging therapies. The goal of achieving healthy aging can be attained by adopting *Viharas* (lifestyle practices) that support overall well-being and *Pathyahara* (wholesome dietary habits). These principles are essential for fostering a healthy and content aging society.[5]

# 2. AIMS AND OBJECTIVES

- 1) To explore the concept of "Geriatrics" from an Ayurvedic perspective.
- 2) Enlist the dietary habits (*Ahara*) that contribute to a prolonged and healthy life.
- 3) Identify the appropriate regimen (*Vihara*) for promoting longevity in the geriatric population.

### 3. MATERIALS AND METHODS

Literary search on *Vaya* (aging), *Ahara* (diet), *Vihara* (lifestyle), and other pertinent topics were gathered from a range of references. The primary Ayurvedic texts consulted include *Charak Samhita, Sushruta Samhita, Ashtang Samgraha, Ashtang Hridaya, Bhava Prakasha, Sharangdhara Samhita, Kashyapa Samitha and Hareetha Samhitha along with their available commentaries. Additionally, an electronic search was conducted across databases such as Scopus, PubMed, Google Scholar, DHAARA and Google, employing keywords like Geriatrics, <i>Ahara, Vihara, Ayurveda*, Ayurvedic diet, dietetics, Lifestyle and *Pathya*.

### 3.1. JARA - ETYMOLOGY AND SYNONYMS

The term "Jara" (aging) may be traceable from the very antiquity and is appearing frequently in all the treatises of philosophy, mythology, arts, medicine etc. Etymologically the term "Jara" comprises of Jr + Ana + Tap. The term has been derived from the Sanskrit root "Jrisvayohanou" by applying the Sutra 'Sidbhidadibhyona'. This term is indicative of the decline that takes place over period of the life span. The word "Jaras" is sometimes substituted for "Jara".

One synonym for *Jara* is "*Visrasa*" which is derived from the Sanskrit root of "*Sramsuadhahpatane*" with the prefix "*Vi*" by applying the *Amga adesha*. Here "*Adhahpatane*" conveys the meaning of decline in the physical, physiological and psychological wellbeing.

Some other terms like "*Pravaya*", "*Sthavira*", "*Jirana*", "*Jarana*", "*Vriddhatva*", "*Varshiyana*", "*Jyayana*" etc. can be correlated with old age. All these words share a common meaning related to aging as well some specific meanings indicating some characteristics of the old age. The term "*Pravaya*" indicates the passage of years after the birth. "*Sthavira*" refers to the incapacity or the impairment of the movements of an elderly person. The term "*Vriddha*" describes an aged person who is mentally matured.[6] "*Jirna*" or "*Jarana*" are indicative of the increased catabolic and degenerative process. Finally, "*Varshiyana*" and "*Jyayana*" describes an individual who is very much old.[7]

### 3.2. CLASSIFICATION OF AGE IN AYURVEDA

Age is divided into three according to *Charaka Samhitha*: *Baala* (Up to 30 yrs), *Madhyama* (30-60 yrs), *Jeerna* (60-100yrs).[8] *Sushruthacharya* have categorised as Baala (up to 16 yrs), Madhyama (16-70 yrs), *Vridha* (above 70 yrs).[9] According to *Astanga Hridaya*, the classification is as *Balya* (Up to 16 yrs), *Madhyama* (Up to 70 yrs), *Vridham* (After 70 yrs).[10] *Astanga Samgraha* classifies almost similar as: *Balyam* (Up to 16 yrs), *Madhyamam* (17 – 60 yrs), *Vridham* (After 60).[11] Meanwhile, in *Hareetha Samhitha*, vaya is classified as *Baala* (up to 16 yrs), *Yuva* (16-25 yrs), *Madhyama* (25-70 yrs), *Vridha* (above 70 yrs).[12] *Sharangadhara* mentions the gradual loss of different biological factors during life as

a function of aging. He details the specific sequence in which these factors diminish over an approximate lifespan of hundred-years. [13]

Table 1

Sl no	Years	Kshaya of:		
1.	First decade of life (0-10yrs)	Balya	Childhood	
2.	Second decade of life (11-20 yrs)	Vridhi	Growth	
3.	Third decade of life (21-30 yrs)	Chavi	Beauty	
4.	Fourth decade of life (31-40yrs)	Medha	Intellect	
5.	Fifth decade of life (41-50 yrs)	Tvaka	Skin health	
6.	Sixth decade of life (51-60 yrs)	Drishti	Vision	
7.	Seventh decade of life (61-70 yrs)	Shukra	Sexual ability	
8.	Eighth decade of life (71-80 yrs)	Vikrama	Strength	
9.	O. Ninth decade of life (81-90 yrs) Budhi Wisdom		Wisdom	
10.	Tenth decade of life (91- 100 yrs)	Karmendriya	Locomotor activity	

### 3.3. PATHOPHYSIOLOGY OF AGEING

Ayurveda sastra considers *Prana*, (life energy) responsible for respiration, oxygenation and circulation, as a key factor to aging. *Prana* also governs *Ojas* (immunity) and *Tejas*. *Ojas*, the essence of *sapta dhatus* (bodily tissues), supports immunity and longevity, imbalance of which leads to *kapha* or *Vata*-related disorders. *Tejas*, the subtle energy governing metabolism, aids in nourishing and transforming *dhatus*. An imbalance between *Tejas* and *Ojas* leads to weakened immunity and also disrupt pranic energy, which leads to degenerative disorders. Balancing *Prana*, *Ojas*, and *Tejas* through proper diet, exercise, and lifestyle is essential for longevity.[14]

### 3.3.1. ROLE OF TRIDOSHAS

*Vata, Pitta*, and *Kapha doshas* respectively dominate in childhood, adulthood, and old age.[15] Thus, in old age, *Vata* dosha requires special attention. Untimely aging can result from the aggravation of *Vata* and *Pitta doshas*, so it is crucial to avoid the factors that aggravate these *doshas*. [16]

Table 2

	Balyavastha (Childhood)	Madhyavastha (Middle age)	Vridhavastha	(Old age)
Vata	+	+	+++	
Pitha	++	+++	++	
Kapha	+++	++	+	

It is obvious that all the three *Doshas* get involved in the aging process, each manifested through various symptoms. This exist either in terms of *Kshaya* (depletion) or *Vriddhi* (increase). *Kapha*dosa is mainly responsible for growth and development while *Pittaodsa* for vigour and vitality. *Vatadosha* governs atrophy and involution. With advancing age, *Kapha* gets gradually depleted and *Vata* increases.[16]

### 3.3.2. AGING AND SAPTADHATUS

The symptoms of aging correlates with the normal functioning of the *saptadahatus* which suggest that, there is a general decline in the function of all *dhatus*. According to *Ayurveda*, *Ojas* resides in *Hridaya* (heart), is the quintessence of all seven *Dhatus*, synonymous with *Bala* (strength) and is responsible for resistance against disease or *Vyadhikshamatva* (immunity). *Ojas* is essential for sustaining life, nourishes and strengthens *Mamsa* (muscles), gives

energy for all type of activities, ensures happiness and lustre and maintains a balance between the functioning of *Jnanendriya* (snensory organs) and *Karmendriya* (motor organs). *Ojo Kshaya* (depletion of *ojas*) manifests different symptoms like fear, tension, decreased will power, decreased sensory and motor functions, physical weakness and diminished mental functions.[17]

### 3.4. JARA-TYPES

Jara is classified as two: Kalaja jara (natural aging) and Akalaja jara (premature aging). According to Charakacharya, vitiation of Tridosha, leads to various progressive pathological changes due to improper utilization of the diet. This causes muscle atrophy, looseness of joints, vitiation of Rakta (blood), excessive production of Meda (fatty tissue), insufficient Majja (marrow) production, failure of production of Shukra (semen), and depletion of Oja (vital essence). This pathology manifests as lack of enthusiasm, increase in sleep, drowsiness, lethargy, increased respiratory rate and difficulty in initiating and performing physical and mental activities, deterioration of memory, intellect, and complexion. The person thus becomes susceptible to various types of diseases and shortening lifespan. When these changes occur naturally according to Kala (time) and Swabhava (nature), it is known as Kalaja Jara (natural aging) which can be slowed down, avoided and may be prevented; can be managed if already manifested. The onset of aging as a result of defective diet and lifestyle, leads to Akalaja Jara (untimely aging). This is manageable and treatable. [18]

# 3.5. ROLE OF PATHYAHARA (WHOLESOME DIET) IN VRIDHAVASTHA

Ayurveda puts a huge emphasis on dietary habits referred to as 'Pathya'. The core philosophy of Ayurvedic nutrition is: "Eat to live a healthy and disease-free life". According to Ayurveda, a person suffering from any disease and is following strictly the wholesome diet and avoids apathya (unwholesome diet), may not even require medicine. Therefore, diet after sixty years should be nutritionally adequate and well balanced. Older adults are vulnerable to malnutrition and many health issues which can be managed through dietary modifications. In spite of this, there is a lack of evidence-based guidelines for individualized dietary modifications in elderly and older adults tend to be poorly adhere with dietary recommendations.[19,20]

# 3.5.1. SEVANEEYA, ASEVANEEYA AHARAS: (WHOLESOME AND UNWHOLESOME FOODS) [21]

(wholesome) (unwholesome) Lohit shali (red rice) Yavaka (a variety of barley) Shuka dhanya Masha (black gram) Shami dhanya Mudga (green gram) Udaka varga Antariksha udaka Varsha nadevabudaka (rain water) (river water of rainy season) Lavana varga Saindhava (rock salt) Ushara (saline salt) Shaaka varga Jeevanti Sarshapa shaka (Leptadenia reticulata) (mustard) Gomamsa (meat of cow) Mamsavarga Enamamsa (meat of antelope) Pakshivarga Laav (quail, bater) Kaankapot (young dove) Bhega (frog meat) Bileshaya Godha (iguana) Matasya varga Rohita (rohu fish) Chilchima (ground fish) Aavika (ghee of sheep's milk) Sarpivrga Gosarpi (cow ghee) Ksheera Goksheera (cow milk) Avikseera (sheep milk) Tailavarga Tilataila (sesame oil) Kusumbha taila (Safflower oil) Anup mrigavasa Varaha vasa (fat of pig) Mahisha vasa (fat of bull) Matsya vasa Chuluki vasa Kumbhir vasa (water fowl) Jalchar vihanga vasa Paak hamsa vasa Kaak mudga vasa (white swan fat) (crocodile) Vishkar shakuni vasa Kukkuta vasa Chatak vasa (fat of chicken meat) (pied cuckoo or sparrow) Shakha meda Ajameda Hastimeda (fat of goat's meat) (fat of elephant's meat)

Table 3

Kandavarga	Shringvera (ginger)	Aalu (potato)	
Phalavarga	Mridvika (raisins)	Nikucha (barhar or monkey jack)	
Ikshu vikaara	Sharkara (sugar candy)	Faanit (treacle)	

# 3.6. AYURVEDIC DRUGS USED AS ANTIAGING[22]

# Table 4

Slno	Drug	Botanical name	Part used	Dose
	Brahmi	Bacopa monnieri (Linn)	Whole plant	Swarasa (Juice)– 10-20 ml, Choorna (Powder) 5-10gm
	Guggulu	Commiphora wightii (Arnott) Bhandari	Gum	2-4gm daily
	Mandookaparni	Centella asiatica (Linn) Urban	Whole plant	Patra swarasa (Leaf juice) – 10-20 ml, Powder – 0.5 gm BD
	Chitraka	Plumbago zeylanica Linn.	Root, root bark	1-2 gm
	Haridra	Curcuma longa Linn	Rhizome	Juice of fresh rhizome – 10 -20 ml, Dry powder-1- gm
	Shireesha	Albizia lebbeck (Linn) Wild	Bark, flower, seed, leaf	Bark powder – 3-6 gm, Seed powder 1-2 gm, Leaf juice – 10 -20ml
	Vacha	Acorus calamus Linn	Rhizome	0.25-0.5 gm
	Kapikachhu	Mucuna pruriens (Linn) DC	Root, leaf, seed, hair	Seed powder – 3-6gm
	Shtavari	Asparagus racemosus Willd	Tuberous root	Juice 10 – 20 ml
	Tulasi	Ocimum sanctum Linn	Whole plant	Juice 5 -10 ml, Powder 1-3 gm
	Arjuna	Terminalia arjuna (Ro.) Wt. & Arn.	Bark	Bark juice 10 -20 ml, Powder 3-6 gm
	Amlaki	Phyllanthus emblica .Linn	Root bark, stem bark, leaf, fruit, seed	Fruit powder 3-6gm, Fresh juice – 10-20 ml
	Aswagandha	Withania somnifera (L.) Dunnal	Root, leaf, seed	3-6 gm
	Guduchi	Tinospora cordifolia (Wild) Miers. Ex Hk.f. &Th	Root, Stem, leaf	Powder - 3-6 gm
	Pippali	Piper longum Linn	Fruit, root	500-1000gm
	Yastimadhu	Glycyrrhiza glabra Linn	Root	Powder - 3-5 gm
	Haritaki	Terminalia chebula Retz	Fruit	3-6 gm
	Bhallathaka	Terminalia bellerica	Fruit, gum, oil	Fruit - 1-2 gm
	Shankapushpi	Convolvulus plucaris Chois.	Whole plant	Kalka (paste)- 10-20 gm
	Bala	Sida cordifolia. Linn	Root, seed	Juice 10-20 ml, Powder 3-6 gm
	Lasuna	Allium sativum. Linn	Bulb, oil	Paste – 3-6gm, Oil 1-2 drop
	Jyothismati	Celastrus paniculatus. Wild	Root, bark, leaf, seed,oil	Seed 1-2 gm, Seed oil – 5-15 drops

Aranyajeero	ka Centratherum anthelminiticum Kuntze	Seed	1-3 gm	
-------------	---	------	--------	--

### 3.6.1. OTHER RECIPES

- 1) *Ayushkaragana*: Partaking meals only after complete digestion of meals taken earlier, not suppressing the natural urges, maintaining celibacy, non-violence and avoiding adventures bestow long life.[23]
- 2) *Amalaki swarasa* (freshly prepared juice of *Emblica officianalis*) mixed with Honey, Sugar or Ghee should be licked every day along with following *Pathya Ahara*, makes the person devoid of all geriatric diseases.[24]
- 3) Decoction of *Bijaka* (*Pterocarpus marsupium*) boiled up to thick consistency mixed *Triphala churna* (powder of dried *Emblica officianalis, Terminalia chebula and Terminalia bellerica*) Sugar, Honey or Ghee and taken daily in the morning makes a person who is already old to come back to young age. It also postpones the geriatric diseases.[25]
- 4) Fresh plant of *Punarnava* (*Boerhavia diffusa*) is taken cleaned and grinded into fine paste and mixed with Milk and should be taken for 24 days/2 months/6 months/1 year. Person who takes this, even they are in old age feels the strength of young people.[26]
- 5) Milk + Ghee is considered as the agryoushadhi (best medicine) in Geriatric diseases. [27]
- 6) *Shilajathu* immersed in hot decoction of drugs is immersed in milk. This process repeated for 7 days. This powder taken along with milk prevents ageing.[28]
- 7) Role of Vihara (Lifestyle):

# 3.7. DINACHARYAS FOR AYU, BALA, PUSHTI AND SWASTHYA

- 1) *Brahmamuhurtha jagarana*: Waking up at *Brhama muhurtha* (14<sup>th</sup> *muhurtha* of night)- The release of serotonin occurs and it promotes happiness. Minimal pollution, absence of noise, pleasant atmosphere all contributes to a sense of wellbeing. Additionally, the morning rays of sun also provides health. [29]
- 2) *Ushapana* Liquid/ water intake before sunrise. Intake of 8 *prasrutha* (640 ml) of water during *suryodayakaala* (before sunrise) helps in preventing most of the ailments and makes an individual lead a long life by delaying the senile period.[30]
- 3) *Dantadhavana* with *arkadi dravyas*: Cleaning (can be considered as brushing) of teeth with various herbal twigs. It enhances the taste perception, provides the sense of purity and lightness and scrapes away the excessively accumulated *kapha dosa* effectively.[31]
- 4) *Nasajalapana* Nasal instillation. This serves as a *rasayana* (rejuvenating therapy) and helps to cure signs of aging like *vali* (wrinkles), *palitha* (grey hair).[32,33]
- 5) *Souveeranjana* Collyrium. Daily application of *souveeranjana* cleanses the eyes and makes them shine like the bright moon in clear sky, similar to how gold ornaments are cleaned by means of oil, cloth and brush.[34]
- 6) *Nasya*-Nasal instillation. For the person who practices daily nasal instillation, will never be having grey or white hairs. He will be having clear sense organs. Even in old age, he will be strong and will be free from head related ailments.[35]
- 7) *Gandusha dharana* Oil pulling. Enhances the strength of tooth roots, prevents dental diseases and delays decay of teeth.[36,37,38]
- 8) *Kavala* Gargling. It is having the similar benefits of that of oil pulling.
- 9) *Abhyanga* Body massage. Regular *abhyanga* postpones senile period, improves overall body circulation, enhances nerve stimulation and activates the acupressure points.[39]
- 10) *Vyayama* Physical exercise. It delays old age [40] and also increases endurance power.[41]
- 11) *Chankramana* Walking. This is considered as a gentle form of exercise and also increases the lifespan.[42]
- 12) *Udwartana* Powder massage. Helps in mitigating *vatadosha*[43].
- 13) *Snana*-Bath Enhances the lifespan [44,45]

- 14) **Shubravatsradharana** (Wearing clean clothes), **Gandhamalyadi dharana** (Garlanding) **Ratnabharanadharana** (Wearing jewellery), **Padashoucha** (Cleaning the foot), **Malamarga soucha** (Cleaning of excretory orifices) Daily practise of all these enhances longevity.[46]
- 15) *Kesa smashru, nakhadi kartana* Trimming of hairs and nails once in 5 days improves lifespan.[47,48]
- 16) *Dandadharana* Holding a stick while walking helps to walk in old age.[49]

### 3.8. RATRICHARYA

Activities that one should follow during evening and night have also been mentioned. This includes intake of *laghubhojana* (light food) (it should be half of the day meal).[50] after which he should walk for 100 steps.[51] *Nidra* (sleep) is considered as one of the *Upasthambha* (sub pillars of life) according to Ayurveda. It plays a crucial role in repairing damaged cells of the body.[52]

### 3.9. RITUCHARYA

This word is the combines two words: *ritu* meaning seasons and *charya* meaning routine. Thus, the complete meaning of the term is, routine which is to be followed in different seasons. *Ayurveda* focuses on living in harmony with nature, acknowledging the intimate relationship between the individual and the environment. *Ayurveda* recognizes the impact of seasonal changes on our health, and recommends tailored recommendations for adjusting one's lifestyle throughout the year.

**Sadvritha:** Regimen of good conduct. This involves engaging in the righteous and virtuous activities in concern with physical mental and verbal act.[53] This is considered as one of the principles of *Swasthavritha* which keeps a man healthy.[54] One who follows habit of charity, compassion, truthfulness, celibacy, gratitude, rejuvenators, friendship and benevolent activities forms the group which enhances the lifespan of life.[55]

### 3.10. ACHARA RASAYANA

Individuals who are truthful & devoid of anger, free from alcohol & excessive sexual indulgence, refrain from violence (or) over exertion, who are peaceful & pleasant in their speech, who practice *japa* (Incantation) & cleanliness, who are *dhira* (Stable & steady), who practice charity & penance. who offer prayers to God, cow, brahmins, teachers & elders, who are free from barbarous act, who are compassionate, maintain regular sleep and wake patterns, who habitually take milk & ghee, who are acquainted with the measurement of the place & time, who remain free from ego, whose conduct is good, who are broad minded who have love for spiritual knowledge, who possess excellent senses, who shows respect for elders, who practices self- control, who regularly study scriptures, get the bestows rejuvenation therapy, good health, better life and a long life span. They will be admired and loved by others. One who adheres to these the principals of good conduct will surely attain long life, health, wealth and reputation and also the eternal world.[56]

### 4. DISCUSSION

Ayurveda, the ancient science of life, provides dietary guidelines that are consistent with modern understandings of the role of nutrition in the treatment of the elderly. Aging is a complex biological process influenced by many genetic, environmental, and social factors. Central to the scientific understanding of aging is the role of telomeres, the protective cap of chromosome ends that shorten during each cell division Telomere length (TL) is a biomarker of cell aging, with short telomeres being the is associated with a higher risk of age-related diseases and decreases throughout life.[57]

The Ayurvedic concept of "Pathyahara" emphasizes a balanced, natural diet that includes antioxidant foods and herbs known for their regenerative properties through mechanisms involving telomere protection and repair on cells. Ayurveda covers not only diet but also lifestyle behaviours, mental health, and the use of specific herbs. According to Ayurveda, tridoshas (Vata, Pitta, Kapha) and Saptadhatus (seven bodily tissues) are the balance of the body which regulates aging. In particular, Vata Dosha imbalance is believed to increase with age and accelerate the aging process.[58] Ayurvedic practices aims to promote longevity by increasing tissue nutrition, supporting telomere maintenance, and reducing oxidative stress. [59]

### 5. CONCLUSION

The combination of Ayurveda the ancient wisdom and modern scientific research on telomeres highlights the potential of combining these approaches to promote healthy aging. Integrating evidence-based nutritional strategies with holistic Ayurvedic practices can enhance telomere protection, reduce eating disorders, and support longevity and health. This cohesive approach emphasizes the importance of considering the molecular mechanisms of aging and broader, holistic factors that affect overall well-being of elderly mankind.

### **CONFLICT OF INTERESTS**

None.

### **ACKNOWLEDGMENTS**

None.

### REFERENCES

- Burdak, L., & Gupta, N. (2015). A Review of Preventive Health Care in Geriatrics through Ayurveda. *International Journal of Ayurvedic Medicine*, 6(2): 100-112.
- Devi, Durgawati, Rajeev Srivastava, and B. K. Dwivedi. "A critical review of concept of aging in Ayurveda." *AYU (An International Quarterly Journal of Research in Ayurveda)* 31.4 (2010): 516-519.
- Datta, Hema Sharma, et al. "Theories and management of aging: modern and ayurveda perspectives." *Evidence-Based Complementary and Alternative Medicine* 2011.1 (2011): 528527: 1p.
- Devi, Durgawati, Rajeev Srivastava, and B. K. Dwivedi. "A critical review of concept of aging in Ayurveda." *AYU (An International Quarterly Journal of Research in Ayurveda)* 31.4 (2010): 516-519.
- Samarakoon SM, Chandola HM, Ravishankar B. Effect of dietary, social, and lifestyle determinants of accelerated aging and its common clinical presentation: A survey study. AYU (An International Quarterly Journal of Research in Ayurveda). 2011 Jul 1;32(3):315-21.
- Dwivedi, K. K. Ageing and Ayurveda [Review of Ageing and Ayurveda]. Chaukambha Orientalia. 2000: 36p
- Dwivedi, K. K. Ageing and Ayurveda [Review of Ageing and Ayurveda]. Chaukambha Orientalia. 2000: 37p
- Trikamji Acharya, V. J. *Charaka Samhitha by Agnivesha* [Review of *Charaka Samhitha by Agnivesha*]. Chaukambha Prakashan. 2009: 280p.
- Trikamji VY. Sushrutha samhitha of Sushrutha with commentry of dalhana, Nyayachandrika commentry of Gangadara. Reprint edition. Varanasi: Chaukamba Orientalia; 2019: 155p
- Paradhkar vaidya PBH. Astangahrudayam composed by vagbhata with the commentries of sarvangasundara of Arunadattaand ayurvedarasayana of hemadri. Reprint edition. Varanasi: Krishnadas Acadamy; 2000: 405p
- Mitra J. Astanga Sangraha of Vrdha Vaghbhata with the Sasilekha sanskrit commentry of Indu. 3rd edition. Varanasi: Choukamba sanskrit series; 2012: 331p
- Pandey P (Dr) G. Haritha Samhitha, sanskrit text with english commentry. 1st edition. Varanasi: Choukamba sanskrit series; 2014: 29-31p.
- Savrikar, Prof. Dr. *Sarangadhara samhitha by Sarangadhara English Translation* (Vol. 1). Chokamba Sanskrit Pratishtan. 2019: 213p.
- Datta, Hema Sharma, et al. "Theories and management of aging: modern and ayurveda perspectives." *Evidence-Based Complementary and Alternative Medicine* 2011.1 (2011): 528527:2p.
- Paradhkar vaidya PBH. Astangahrudayam composed by vagbhata with the commentries of sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri. Reprint edition. Varanasi: Krishnadas Acadamy; 2000:7p.
- Dwivedi, K. K. *Ageing and Ayurveda* [Review of *Ageing and Ayurveda*]. Chaukambha Orientalia. 2000: 42p.
- Dwivedi, K. K. Ageing and Ayurveda [Review of Ageing and Ayurveda]. Chaukambha Orientalia. 2000: 42-43p.
- Devi, Durgawati, Rajeev Srivastava, and B. K. Dwivedi. "A critical review of con concept of aging in Ayurveda." *AYU (An International Quarterly Journal of Research in Ayurveda)* 31.4 (2010): 516-519
- Datta N, Chowdhury K, Jana B. Diet in elderly: an ayurvedic perspective. Scholars J Appl Med Sci. 2014;2(2B):660e3;660-663

- Datta, Nilanjan, Kanchan Chowdhury, and Badal Jana. "Diet in elderly: an ayurvedic perspective." *Scholars J Appl Med Sci* 2.2B (2014): 660e3;660-663.
- Monika Prajapat, Rahish Sewda, Kishori Lal Sharma. Significance of Pathya Apathya in Present Era. AYUSHDHARA, 2024;11(2):177-182.
- Dwivedi, K. K. *Ageing and Ayurveda* [Review of *Ageing and Ayurveda*]. Chaukambha Orientalia. 2000: 119-138.
- Trikamji Acharya, V. *Susruthasamhitha of Susrutha with Nibandhasangraha Commentry of Sri Dalhanacharya*. Chokamba Surbharati Prakashan. 2012: 502p.
- Kunte, Dr., & Shastri Navre, K. R. Astangahridayam composed by Vagbhata. Krishnadas Acadamy. 2000: 936p.
- Kunte, Dr., & Shastri Navre, K. R. Astangahridayam composed by Vagbhata. Krishnadas Acadamy. 2000: 937p.
- Kunte, Dr., & Shastri Navre, K. R. Astangahridayam composed by Vagbhata. Krishnadas Acadamy. 2000: 937p.
- Kunte, Dr., & Shastri Navre, K. R. Astangahridayam composed by Vagbhata. Krishnadas Acadamy. 2000:944p.
- Trikamji Acharya, V. J. *Charaka Samhitha by Agnivesha* [Review of *Charaka Samhitha by Agnivesha*]. Chaukambha Prakashan. 2009: 386p.
- Samagandi, V. K. *Kashi's Text book of Svasthavrittamrtam* [Review of *Kashi's Text book of Svasthavrittamrtam*]. Ayurved Sanskrit Hindi Pjustak Bhandar. 2019:21p
- Samagandi, V. K. *Kashi's Text book of Svasthavrittamrtam* [Review of *Kashi's Text book of Svasthavrittamrtam*]. Ayurved Sanskrit Hindi Pjustak Bhandar. 2019:22p
- Samagandi, V. K. *Kashi's Text book of Svasthavrittamrtam* [Review of *Kashi's Text book of Svasthavrittamrtam*]. Ayurved Sanskrit Hindi Pjustak Bhandar. 2019:27p
- V.Rao, Dr. Mangalagowri. Svasthavritta [Review of Svasthavritta]. Chaukambha Orientalia. 2021: 17p.
- Samagandi, V. K. *Kashi's Text book of Svasthavrittamrtam* [Review of *Kashi's Text book of Svasthavrittamrtam*]. Ayurved Sanskrit Hindi Pjustak Bhandar. 2019:23p.
- Trikamji Acharya, V. J.*Charaka Samhitha by Agnivesha* [Review of *Charaka Samhitha by Agnivesha*]. Chaukambha Prakashan. 2009:39p.
- Trikamji Acharya, V. J. *Charaka Samhitha by Agnivesha* [Review of *Charaka Samhitha by Agnivesha*]. Chaukambha Prakashan. 2009:41p.
- Trikamji Acharya, V. *Susruthasamhitha of Susrutha with Nibandhasangraha Commentry of Sri Dalhanacharya*. Chokamba Surbharati Prakashan. 2012:42p.
- Trikamji Acharya, V. J. *Charaka Samhitha by Agnivesha* [Review of *Charaka Samhitha by Agnivesha*]. Chaukambha Prakashan. 2009:42p.
- Trikamji Acharya, V. Susruthasamhitha of Susrutha with Nibandhasangraha Commentry of Sri Dalhanacharya. Chokamba Surbharati Prakashan. 2012: 558p.
- Kunte, Dr., & Shastri Navre, K. R. Astangahridayam composed by Vagbhata. Krishnadas Acadamy. 2000: 26p.
- Trikamji Acharya, V. *Susruthasamhitha of Susrutha with Nibandhasangraha Commentry of Sri Dalhanacharya*. Chokamba Surbharati Prakashan. 2012:488-489p.
- Trikamji Acharya, V. J. *Charaka Samhitha by Agnivesha* [Review of *Charaka Samhitha by Agnivesha*]. Chaukambha Prakashan. 2009:50-51p.
- Trikamji Acharya, V. *Susruthasamhitha of Susrutha with Nibandhasangraha Commentry of Sri Dalhanacharya*. Chokamba Surbharati Prakashan. 2012: 490p.
- Trikamji Acharya, V. *Susruthasamhitha of Susrutha with Nibandhasangraha Commentry of Sri Dalhanacharya*. Chokamba Surbharati Prakashan. 2012: 489p.
- Trikamji Acharya, V. J. *Charaka Samhitha by Agnivesha* [Review of *Charaka Samhitha by Agnivesha*]. Chaukambha Prakashan. 2009:43p.
- Kunte, Dr., & Shastri Navre, K. R. Astangahridayam composed by Vagbhata. Krishnadas Acadamy. 2000: 28p.
- Trikamji Acharya, V. J. *Charaka Samhitha by Agnivesha* [Review of *Charaka Samhitha by Agnivesha*]. Chaukambha Prakashan. 2009:43p.
- Trikamji Acharya, V. J. *Charaka Samhitha by Agnivesha* [Review of *Charaka Samhitha by Agnivesha*]. Chaukambha Prakashan. 2009:43p.
- Sitaram, Dr. Bulusu. *Bhavaprakasha of Bhavamisra* [Review of *Bhavaprakasha of Bhavamisra*]. Chaukambha Orientalia. 2018:71p.
- Trikamji Acharya, V. (). *Susruthasamhitha of Susrutha with Nibandhasangraha Commentry of Sri Dalhanacharya*. Chokamba Surbharati Prakashan. 2012:490p.

- Sitaram, Dr. Bulusu. *Bhavaprakasha of Bhavamisra* [Review of *Bhavaprakasha of Bhavamisra*]. Chaukambha Orientalia. 2018:92p.
- Trikamji Acharya, V. *Susruthasamhitha of Susrutha with Nibandhasangraha Commentry of Sri Dalhanacharya*. Chokamba Surbharati Prakashan. 2012:249p.
- Burdak SL, Gupta N. A review of preventive health care in geriatrics through ayurveda. International Journal of Ayurvedic Medicine. 2015 Apr 1;6(2):100-112.
- Trikamji Acharya, V. J. *Charaka Samhitha by Agnivesha* [Review of *Charaka Samhitha by Agnivesha*]. Chaukambha Prakashan. 2009:58p
- Samagandi, V. K. *Kashi's Text book of Svasthavrittamrtam* [Review of *Kashi's Text book of Svasthavrittamrtam*]. Ayurved Sanskrit Hindi Pjustak Bhandar. 2019:102p
- Kunte, Dr., & Shastri Navre, K. R. Astangahridayam composed by Vagbhata. Krishnadas Acadamy. 2000:408p
- Samagandi, V. K. *Kashi's Text book of Svasthavrittamrtam* [Review of *Kashi's Text book of Svasthavrittamrtam*]. Ayurved Sanskrit Hindi Pjustak Bhandar. 2019:115p.
- Blackburn, E. H., Epel, E. S., & Lin, J. (2015). Human telomere biology: A contributory and interactive factor in aging, disease risks, and protection. Science, 350(6265), 1193-1198.
- Kunte, Dr., & Shastri Navre, K. R. Astangahridayam composed by Vagbhata. Krishnadas Acadamy. 2000: 7p
- Singh, R. H., Narsimhamurthy, K., & Singh, G. (2011). Neuronutrient impact of Ayurvedic Rasayana therapy in brain aging. Biogerontology, 9(6), 367-374