



“A GLIMPSE OF HOPE IN GERIATRIC CARE THROUGH AYURVEDA- A REVIEW ARTICLE”

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Abstract: Aging is a normal, natural involuntary phase in the development of the individual. In fact, it begins from moment when a human being is born, grow to adulthood, passes to senility and ultimately dies. Ageing encompasses the totality of anatomical, physiological, biochemical, and functional changes that occur in an individual over time, ultimately leading to progressive functional decline and, eventually, death. According to *Ayurveda*, old age is marked by a gradual decline in the *dhatus*, sensory functions, *Ojas* (Vigor), physical energy, virility, and the cognitive abilities of acquisition, retention, recollection, speech, and understanding. During this stage, the quality of the *dhatus* deteriorates, and *Vata dosha* becomes predominant, leading to progressive degeneration of bodily tissues and functions. Now- a -days, every individual is looking forward to a youthful, productive lifespan of 100 or more years filled with unlimited health and opportunity. Consequently, researchers and aging experts are actively exploring strategies to counteract the natural progression of aging, with the aim of delaying its onset and extending healthy longevity. *Ayurveda*, an indigenous system of medicine, is essentially the science of life and longevity. It places special emphasis on geriatric care and devotes one of its eight specialty branches—*Rasayana Tantra* (Rejuvenation Therapy)—entirely to the pursuit of longevity, particularly focusing on nutritional, immunological, and neuro-protective aspects. With this strength in health care, *Ayurveda* offers unique insights into aging. This review will explore various dimensions of aging and longevity by comparing the modern medical science of aging with the *Ayurvedic* treatises on *Jara* (aging) and *Vridhdhavaस्था* (old age).

Keywords: Ayurveda; Dhatus; Sensory Functions; Ojas; Physical Energy; Virility; Vata Dosha; Geriatric Care; Rasayana Tantra; Immunological; Neuro-Protective; Jara

Introduction: Aging is the progressive, universal decline first in functional reserve and then in function that occurs in organisms over time. It varies widely in different individuals and in different organs within a particular individual.^[1] The changes impair homeostatic mechanisms over time, ultimately leading to a decline in physiological integrity and, in certain cases, cognitive function. On

a cellular level, aging is driven by genetic factors, environmental influences, and the body’s decreasing ability to repair and regenerate tissues. While it is often associated with wrinkles, greying hair, and reduced vitality, aging also reflects the richness of experience, adaptation, and wisdom gained over a lifetime.

Aging can be defined as a progressive accumulation through life of random molecular defects that built up within tissues and cells.^[2] Advances in medicine, nutrition, and technology have extended human lifespan and improved quality of life, prompting new discussions about how we define youth, old age, and longevity. Ultimately, aging is both a biological reality and a deeply human experience—marking the passage of time, growth, and the enduring story of life itself.

Ageing is no longer seen as simply growing older—it is increasingly understood as a complex biological process with profound implications for health, independence, and health-care systems globally. The field of geriatric science (or “Geroscience”) bridges biology, medicine and public health to understand why we age, how we accumulate vulnerability to diseases and frailty, and what we might do to extend not just lifespan but health-span (the period of life spent in good health).

10 phasic sequential biolosses during 1st to 10th decades of life according to Ayurveda^[3]



Age specific Rasayana

Table 1: Suggested Rasayana for restoration^[4]:

Natural biolosses	Suggested rasayana for restoration
Balya	<i>Ghambhari, Khira, Ghrita</i>
Vridhhi	<i>Bala, Amlaki</i>
Chavi	<i>Amlaki, Haridra</i>
Medha	<i>Brahmi, Sankhapuspi</i>
Twak	<i>Bhringaraja, Haridra</i>
Drishti	<i>Triphala, Jyotismati</i>
Sukra	<i>Aswagandha, Kapikacchu, Satavari, Pippali</i>
Vikrama	<i>Amlaki, Bala</i>
Buddhi	<i>Brahmi, Sankhapuspi</i>
Karmendriya	<i>Bala, Sahachara</i>

Table 2: Tissue and organ specific Rasayana^[5] :

SL.No	Rasayana quality	Purpose	Suggested remedies
1.	Medhya Rasayana	Promotion of brain and cognitive function	Bramhi Sankhapuspi, Mandukuparni
2.	Hridya Rasayana	Cardioprotective	Arjuna, Puskarmula
3.	Mutra janana	Nephroprotective	Punarnava, Goksura
4.	Tvachya Rasayana	Skin health	Harida, Somaraji
5.	Chaksusya Rasayana	Eye health	Triphala, Jyotismati
6.	Kanthya Rasayana	Throat and speech	Vaca, Yastimadhu
7.	Vrisya Rasayana	For virility	Aswagandha, Kapikacchu
8.	Stanya Rasayana	To promote lactation	Satavari
9.	Srotoprasadana	To promote inner channel	Guggulu
10.	Nasya Rasayana	To help nose and sinuses	Katphala, Apamarga

❖ Neurodegenerative diseases in the elderly

A number of changes take place in the brain during ageing at molecular, cellular, structural and functional level. Neural cells may succumb to neurodegeneration resulting in Alzheimer's disease or Parkinson's disease. In some of the brain regions, there is very little or no change in number of neurons whereas in some brain region there is neuron loss. Stem cell biology is emerging as one of the specialty area in the field of 'Neurosciences' particularly research on ageing that any type of cell in the body including neurons lost can be replaced. This regeneration capacity may persist throughout life span. Such cellular signal transduction mechanism like protein phosphorylation, cellular calcium homeostasis and gene transcription are disturbed due to advancing age. A decline in memory and cognitive (thinking) function is considered by many authorities as a normal consequence of ageing. Environmental toxins, vitamin deficiencies and the process of ageing can alter cognition. The ageing process generally leads to difficulties with memory.^[6]

Ashwagandha (*Withania somnifera* Dunal.) is a popular Indian medicinal plant. Its roots are used as a nervine tonic and adaptogen for centuries. Dwivedi and Singh (1997) conducted a clinical investigation to evaluate the impact of Ashwagandha (*Withania somnifera*) root powder on the mental and physical health of elderly individuals. A research study reported that neuritic regeneration and synaptic reconstruction induced by Withanolide -A isolated from *Ashwagandha*. It was also shown to prevent the formation of beta Amyloid plaques^[7].

It is only drug shown multiple actions on various cholinergic and serotonergic and nor-adrenergic receptors in the brain. It is also helpful in inducing sleep by reducing the hyper-excitability of neurons.^[8]

Brahmi is another *Medhya* herbal which prevents the decline of acetylcholine loss. It not only prevents the memory loss but also enhance the neuronal capability against oxidative stress. Study indicate that it helps to slow down the brain aging.

Mandukaparni has shown psychotropic property by acting on specific serotonergic receptors and thus reduce the hyperexcitation of neurons. Due to its neurochemical actions, it enhances the memory^[9].

Aqueous root extract of *Glycyrrhiza glabra* showed significant enhancement in learning and memory and also reversed the diazepam-induced amnesia in experimental animals.^[10]

Hyperhomocysteinemia-induced neurodegeneration can be attenuated through oral administration of Amlavetasa (*Hippophae rhamnoides*) at a dosage of 900 mg/day in two divided doses. Notably, the fruits of *H. rhamnoides* contain high levels of folic acid, which effectively lowers elevated homocysteine concentrations, thereby mitigating neurotoxic effects. Unlike synthetic folic acid, which is associated with seizure risk upon prolonged use, the natural folate in *H. rhamnoides* is safer for long-term administration. Additionally, the fruits provide antioxidant vitamins C and E that protect against mitochondrial damage and oxidative stress, while the leaves are enriched with diverse flavones that further contribute to antioxidant activity and prevent cytotoxicity-induced cell death.

❖ Neuropsychiatric disorders in the elderly (Jara Janya mano Vikar)

Mental health in later life is influenced by past experiences, age-related stressors, and social/physical environments. Challenges such as loss of capacity, functional decline, and adversity often lead to psychological distress.

Older adults face risks like bereavement, income reduction, and loss of purpose after retirement. Social isolation and loneliness affect about one in four older adults, increasing vulnerability to mental health issues.

Table 3: Medicine used in Manovikara

1.	Churna	Ashwagandha Churna Saraswat churna ^[11]
2.	Vati	Medhya vati, Bramhi vati ^[12] , Sarpagandha ghana vati
3.	Kashaya	Medhya Kashaya
4.	Rasa	Smritisagarrasa, Krishnachaturmukha rasa ^[13]

❖ Cardiovascular disorders in the elderly:

According to Ayurveda, old age is primarily influenced by vata dosha. Vata is inherently characterized by dryness (*ruksha*) and roughness (*khara*), and as individuals grow older, these qualities become more dominant throughout the body. This intensification of vata is considered a key factor in the aging process. Since the heart is an organ engaged in continuous and vital activity, the effects of aging are especially.

- Muscular atrophy
- Calcification and stiffness of valves
- Atherosclerosis
- Narrowing of coronary arteries
- Angina
- Myocardial infarction

Table 4: Medicine used in Ayurveda ^[14]:

1.	Churna	Pippalyadi Choorna, Haritakyadi Choorna, Arjunatwak Choorna, Tivritadi Choorna, Puskar Mula choorna, Hingwadi churna, Pathyadi churna, Vidangyadi churna
2.	Kalka	Pushkarmool Kalka
3.	Kwatha	Puskaradi kwatha, Dashamoola kwatha
4.	Rasaoushadhi	Kalyansundar rasa, Trinetra rasa, Hridayarnava rasa, Chintamani Rasa
5.	Arishta	Parthadyarishta
6.	Ghrita	Arjuna ghrita, Ballava ghrita, Swandranshadi ghrita,
7.	Vati	Prabhakar vati

Single herbs: Puskar Mula, Arjuna, Haritaki, Triphala, Methi, Karcura, Punarnava, Guggulu, Vaca have been proved anti anginal, anti-ischaemic, anti-hyperlipidaemic, anti -arrhythmic, cardiac-protective and cardiac corrective as well. Properly selected drugs for proper case, at proper time, for a proper period can prevent and avert Heart Emergencies and Surgeries ^[15].

❖ Endocrine and Metabolic Disorder:

In *Ayurveda*, *Agni* plays a vital role in sustaining life, determining age, and supporting longevity. It is regarded as the fundamental force responsible for maintaining health, nurturing physique, and regulating all physiological functions. Among various etiological factors, aging is particularly significant, as it can impair the function of *Agni* and lead to the formation of *Ama*—an unwanted metabolic byproduct. *Ama* has a profound ability to vitiate the doshas, thereby disturbing the normal homeostatic balance of tissues. This disruption can give rise to a wide spectrum of local as well as systemic metabolic disorders, such as Diabetes Mellitus, Thyroid imbalances, Bone and Joint diseases, and many other conditions.

In Ayurveda system of Medicine: Samsodhana and samsamana are the important therapeutic measures described in the classics of Ayurveda. *Samsodhana* (bio-pacificatory therapy) aims at the elimination of *Malas*, thereby addressing the root of disease pathogenesis. It restores the function of deranged *Agni*, *Dosa*, and *Srotāmsi*, contributing to overall health improvement. The procedure requires close monitoring of vital functions and patient strength, particularly in the elderly. It is especially indicated in the management of Diabetes mellitus, Obesity, Hyperlipidaemia, and Gastrointestinal disorders.

• *Samsamana* (pacification therapy) is directed at the specific site of disease. It acts by pacifying the disturbed *Dosa*, *Mala*, and *Dūṣya*. Disease-specific *Samsamana* therapies are prescribed accordingly. *Samsodhana* (bio-pacificatory therapy) aims at the elimination of *Malas*, thereby addressing the root of disease pathogenesis. It restores the function of deranged *Agni*, *Dosa*, and *Srotāmsi*, contributing to overall health improvement. The procedure requires close monitoring of vital functions and patient

strength, particularly in the elderly. It is especially indicated in the management of Diabetes mellitus, Obesity, Hyperlipidaemia, and Gastrointestinal disorders.

• **Diabetes Mellitus:** It is correlated with Prameha & Madhumeha in Ayurveda. In Ayurvedic Classics a number of herbal and herbo-mineral drugs are advocated for the treatment of prameha in general. Drugs having katu(pungent), Tikta(bitter) and kasaya(astringent) rasa are indicated in all type of Prameha. In this regard Ayurvedic drugs not only have Pramehaghna ie. - anti-diabetic property but also have Rasayana effect i.e. improve nutritional pool, Ojovardhaka effect i.e. immune enhancer, Jivaniya effect i.e. longevity enhancer and Balya effect i.e. vitalizer. By virtue of these properties Ayurvedic drugs alone or in combination with modern medicine, have capacity to reduce the insulin as well as oral hypoglycemic drug requirement, prevent or delay the long-term complications, and maintain overall health in elderly diabetics.

Table 5: Medicine in Prameha & Madhumeha^[16] :

Single herbs	Nisa, Amalaki, Silajutu, Pippali, Guduchi, Nimba, Karavellaka, Udumbara, Methika, Mamajjaka, Bilva, Vijayasara etc
Kasthaushadi	Phaltrikadi kwatha, Mustadi kwatha, Vidangadi kwatha, Durvadi kwatha, Triphaladi kwatha, Sarjadi kwatha, Agnimanthya kwatha, Vangaavaleha, Chandrakala gutika,
Rasaoshadhi	Mehavajra rasa, Yogeshwara rasa, Vasantakusumakara rasa, Vangeswara rasa, Pramehachintamani rasa,

• **Obesity and hyperlipidaemia:** Obesity is associated with a wide range of serious medical complications and significantly diminishes overall quality of life. In older adults, excess body weight further accelerates the age-related decline in physical functioning, increasing vulnerability to frailty and related health risks.

• **Hyperlipidaemia** is more common in older adults because aging slows metabolism and liver insufficiency to process fat. Hormonal changes—such as menopause—along with age-related increases in conditions like diabetes, obesity, and physical inactivity further contribute. Over time, accumulated lifestyle factors also play a role, leading to higher LDL and triglyceride levels and lower HDL cholesterol.

• **Some medicine of Medoroga^[17]:** Vidangadi churna, Vidangadya louha, Trayaushnadya louha, vadagnilouha, Navakaguggulu, Amrityadya guggul, Triphaladya taila, Mahasugandhi taila, louha arista

❖ **Musculoskeletal & joint diseases:** Musculoskeletal pain and discomfort are common complaints for older adults. It is observed that arthritis is the leading chronic diseases that increases in prevalence and incidence with age.

In Ayurveda, musculoskeletal diseases are described under various diseases. Among them the major diseases of old age are Sandhivata, Asthiksaya.

Table 6: Medicine used in Sandhivata:

1.	Single drugs	Aswagandha, Bala, Dasamula, Sunthi, Guggulu, Eranda, Nirgundi, Rasna, Rasona
2.	Kasayam ^[18]	Nirgundyerandadi kasaya, Prasarinyadi kasaya, Rasnairandadi kasaya, Dasamuladi kasayam
3.	Guggulu	Yogaraja guggulu ^[19] , Nirgundi guggulu ^[20] , Lakshadi guggul, Rasnadi guggul, Trayodasanga guggulu
4.	Bhasma	Godanti Bhasma, Svarna Bhasma, Pravala bashma, Mukta sukti
5.	Rasa ^[21]	Vatagajankusa rasa, Vatari Rasa, chintamani rasa,

6.	Taila ^[22]	Narayana taila, Prasarani taila, Masaditaila, Kshirabala taila, Sahacharadi taila
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❖ **Asthidhatuksaya:** Osteoporosis is a condition characterized by decrease in bone mineral density which is also a burning issue in old age specially for women. The clinical picture of osteopenia is similar to the condition of Asthidhatukshaya described in ayurveda which is characterized by the loss of sarata(density) of asthi dhatu. Ayurveda approaches osteoporosis through a comprehensive therapeutic framework that involves correcting doshic imbalance, strengthening the digestive fire (Agni), Detoxifying the tissue, and nourishing the bone matrix.

Table 7: Medicines used in Asthidhatukshaya

Single drug	Aswagandha, Satavari, Eranda, Pravala, Mukta ^[23]
Kasthaushadhi ^[24]	Laksadi guggulu, Punarnavadi mandura, Dhatri louha, Amlaki rasayana, Dasamoola ghana vati

❖ **Respiratory diseases in the elderly:**

Respiratory diseases result in great morbidity and mortality in the elderly people. The burden of major respiratory diseases is increasing in this age group due to age-related physiological declines (a depressed immune response, reduced lung capacity) and comorbidities, leading to increased severity and atypical symptoms. A decline in the innate i.e. neutrophils, and specific immunity i.e. lymphocyte, has been observed in the elderly.

In Ayurveda, respiratory infections are attributed to multiple etiological factors such as exposure to fumes, dust, and cold substances. Suśruta, in *Kuṣṭhanidāna*, further recognized the role of microbial invasion in conditions like *Śoṣa* and *Jvara*. These factors primarily disturb *Vāta doṣa*, either independently or in combination with *Pitta* and *Kapha*, leading to the pathogenesis of respiratory disorders.

Table 8: Some medicine used in respiratory diseases

1.	Single herbs	Sirisa, Vasa, Haritaki, Bhargi, Puskaramula, Tulsi, Anantamula, Sati, Karcura, Kantakari, Vaca, Dugdika
2.	Kwatha ^[25]	Panchamuli kwatha, Dashamoola kwatha, Puskaradi kwatha, Kantikari kwatha, Pippalyadi kwatha,
3.	Churna ^[26]	Talisadi curna, Marichyadi churna, Kasantaka churna, Puskaramula choorna,
4.	Vati	Eladi vati, Lavangadi vati, Vyosadi vati, Sarivadi vati
5.	Avaleha	Cyawanaprasavaleha, Vasaavaleha, Haridrakhanda, Agastyaharitaki, Citrakaharitaki
6.	Asava	Kanakasava, Draksarista
7.	Rasa	Kasakuthara rasa, Swaskuthara rasa, Kaphaketu rasa, Swaskasachintamani rasa, Laghumalininivasanta rasa, Tribhubankirti rasa, Laksmivilasa rasa

Conclusion: Ayurveda is the most ancient science of life, health and cured practised in India for thousands of years based on its own unique fundamental principles, Materia-medica and pharmacy. Ayurveda emphasizes harmonious living through alignment with nature, universal consciousness, the environment, and individual constitution. In this framework, healthy aging is achieved by cultivating balanced impressions, adopting lifestyle practices and routines that sustain physical and mental well-being, and fostering positive transformation of body and mind through deliberate, harmonious choices and actions. Ayurveda texts describe in great details the codes of healthy living. i.e Swastha Catuska chapters of Charaka Samhita present a classic account on this aspect of the subject. Dinacharya or daily routine of right living is designed as means of promotion and preventive health care. Ayurveda

texts give equal emphasis on psychosocial factors of good living and describe in detail the ethics and code of conduct conducive to good mental and social health promotion regimen. The absence of systematic safety and efficacy studies, including proof-of-concept trials, has confined Ayurvedic concepts of aging to a largely theoretical framework. To advance their scientific validity, it is essential to revisit and rigorously examine these principles, generating robust evidence that clarifies causality while minimizing bias and chance effects. There is also a need to undertake appropriate research strategies in the field for developing an evidence -based Ayurvedic Geriatrics and its mainstreaming.

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