

## REVIEW ON GERIATRICS THROUGH AYURVEDA

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## ABSTRACT

In *Ayurveda* human life is classified in 3 states like *Balyavastha*, *Tarunyavastha* and *Vardhakyavastha*. Old age is supposed to be the most sensitive phase of life and needs utmost comfort and care. Today 8.5% of people worldwide are aged above 65 and over. According to 2016 report by the ministry for statistics and programme implementation, India has 103.9 million elderly, people above age 60, about 8.5% of the population. This projected growth in the older population has the potential to place significant burdens on healthcare and support services.

**Aims and Objectives:** To study the concept of *Jara* and to explore the preventive and possible treatment through *Ayurveda*. **Materials and Methods:** Classical texts of *Ayurveda* with respect to *Jara* and previous research work on ageing was studied, compiled, analyzed and presented in a systemic manner. **Discussion:** In *Ashtang Ayurveda Jarachikitsa* is considered as an independent separate branch which shows its importance. In *Ayurveda* the branch which deals with geriatric disorders is known as rejuvenating therapy (*Rasayanchikitsa*). **Conclusion:** *Ayurveda* is the science of life and longevity which has potential of preventing and curing geriatric diseases. Multi-dimensional approach of *Ayurveda* in prevention of early ageing and curing disorders of the elderly may provide some new hope. Present review work throws light on measures of geriatrics care through *Ayurveda*.

**Keywords:** *Ayurveda*, Elderly diseases, Preventive management, *Rasayana*

## INTRODUCTION

Geriatrics is the science that deals with the study of diseases and their management particularly to elderly.

Ageing is a physiological process that starts from birth, continues throughout life and ends with death. Re-

search has led to a number of theories being proposed that may explain the ageing process but simply ageing is a common occurrence among most living things and is a permanent gradual physiological cellular decay [1]. Due to demographic transition in India, the elderly population is expected to rise up to 12% of the total population by 2025 [2]. At least 65% of India's old population live in rural areas and are illiterate and economically dependent [3]. Thus, there is a need to address the medical and socio-economic problems of this vulnerable group and promote healthy ageing [4]. The aim of the present review article is to illuminate geriatric problems and their treatment methods through Ayurveda.

As per Charaka need of longevity of life is desire of every individual hence elaborated *Dirgamjeevitiyamadhyay* (chapter on longevity of life) in the beginning of their text *Charaka samhita*.

A person who takes suitable diet and practices self-control lives full span of 100 years without illness. Stages of life as described in Ayurveda is as follows [5]

1. *Balyavastha* (Childhood), which extends up to age 16 years.

2. *Tarunyavastha* (Adult age), which extends after age 16 to 60 years.

3. *Vridhnavastha* (old age), wherein after 60 to 100 yrs the body elements, sense organs, strength, energy, manhood, velour, memory, understanding, speech and discrimination begin to decay.

#### Types of Jara

As per Ayurveda, *Kalajand Akalajjara* may be considered as types of Jara. *KalajaJara* is considered as *Swabhavikavyadhi*, which cannot be prevented by medicines whereas *Akalajajara* i.e. premature ageing process can be prevented by adopting regular *Panchakarma* (body purificatory methods) and intake of *Rasayana* drugs.

#### Decade wise Stages of ageing and its impacts as per Ayurveda [6]

Scholars of latter stages like *Vagbhata* and *Sharangdhara* has described the 10-Phasic sequential biological changes taking place during 1<sup>st</sup> to 10<sup>th</sup> decades of life which may be restored up to the workable extent by adopting age specific *Rasayanas* (Rejuvenation).

Table 1: Age wise inherent bio losses

Ageing Decades	Inherent Biolosses
0-10	<i>Balya</i> – Corpulence/strong
11-20	<i>Vridhhi</i> – Growth/elongation
21-30	<i>Chhabi</i> – Lusture
31-40	<i>Medha</i> – Intellect/comprehension
41-50	<i>Twaka</i> – Skin appearance
51-60	<i>Drishti</i> – Vision
61-70	<i>Shukra</i> – Virility
71-80	<i>Vikrama</i> – Physical Strength
81-90	<i>Buddhi</i> – Thinking
91-100	<i>Karmendriya</i> – locomotion

#### Health related old age Problems

As the age progresses the number of health-related disorders increases. These health problems may be classified into different categories such as physiological, pathological, psychological, socio economical etc.

#### Physiological Problems

These are normally occurring and are due to aging process which results in disabilities. For instance, senile cataract, glaucoma, nerve deafness, wrinkles on skin, changes in mental outlook.

## Pathological Problems

**Table 2:** System wise diseases

System/Channel	Diseases
Blood related	Hypertension, Myocardial Infarction, Stroke
Bone related	Arthritis, Osteoporosis, Gout
Eye related	Cataract, Retinopathy
Respiratory Diseases	Bronchitis, Asthma, Emphysema
Genitourinary system	BEP, Dysuria, Nocturia,
Nervous system	Alzheimer's disease, Parkinson's disease
Others	Cancer, Diabetes mellitus, Obesity

## Socio economic Problems

Indian old age people experience burden of communicable as well as non-communicable diseases besides impairment of special sensory functions like vision and hearing and other degenerative diseases. Low income of retirement, isolation because of death of family members, maladjustment with younger generation, worst geographical access and unaffordable treatment also lead to low use of health care especially among the elderly. They are also facing abuse in their families or in institutional settings. A study in Chennai among 400 community-dwelling elderly aged 65 years and above found the prevalence rate of mistreatment to be 14%. Chronic verbal abuse was the most common followed by financial abuse, physical abuse and neglect. [7]

## Material and Methods

This is literary review research study done for finding out all possible scientific information on *jara*(ageing).

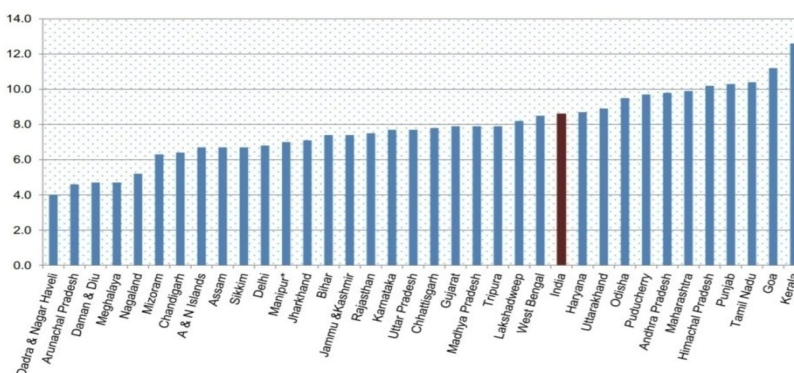
**Source of Data:** *Ayurveda* classical texts like *Charaka Samhita*, *Sushrut Samhita*, *Sharangdhar Samhita* along with available commentaries and published articles in journals, Modern textbooks and other material

available online have been thoroughly studied, analyzed and described in efficient manner.

## State-wise Demographic Elderly Status in India

The age wise distribution of Indian population from 2009 to 2019. In 2019, about 26.62 percent of the Indian population fell into the 0-14-year category, 67 percent into the 15-64 age group and 6.38 percent were over 65 years of age. On comparing 2001 and 2011 Population Census [8] data, it was revealed that the average increase of elderly population among states is 1%. State-wise data on elderly population reveals that Kerala had maximum proportion of elderly people in its population (12.6 %) followed by Goa (11.2 %) and Tamil Nadu (10.4 %) as per Population Census. According to the state of world population 2019 report by the United Nations population fund (UNPFA), India's population in 2019 stood at 1.36 billion and six per cent of India's population was of the age 65 and above. This may be due to the lifestyle and better medical facilities in respective states.

Figure 1: Percentage of the elderly in the total population of States/UTs



**Source:** Population Census 2011

### **Mortality and Morbidity Status of Elderly** [9]

#### **Morbidity**

- Injuries: 3-5% fractures, 5-10% are soft tissue injuries.
- Long lies: 40-50% unable to get up.
- Quality of life: fear of falling.

#### **Mortality**

- Sixth leading cause of death in elderly.
- 70% of all deaths due to fall occurring in 12% of the population age 65 years and older.

#### **Preventive and curative methods in old age**

As per *Ayurveda* principle *Swasthasyaswasthyarakshanam* can be achieved only by keeping *dhatus* in equilibrium state. For this *Rasayanchikitsa* (rejuvenating therapy) and *Ahar* (diet) is to be taken in proper manner particularly in old age. Special attention towards *Jatharagni* (digestive fire) is very important in old age. *Doshanulomana* (laxation) is also very important for achieving health.

#### **Role of Rasayan Chikitsa in elderly**

*Rasayana* is the branch of *Ayurveda* which includes a number of specialized methods aimed at prolonging life, preventing aging and diseases, eliminating degenerative processes and promoting health. *Sushruta* has described *Rasayana* as one, which delays ageing, increases the lifespan, promotes intellect, memory, and increases resistance to diseases [10].

It is always better to take *shodhan* (*Panchakarma*) prior to *rasayanchikitsa* for better results of *rasayanchikitsa*. *Rasayana* Therapy can be advocated at outdoor level (*Vatatapika Rasayana*) and with hospitalization also (*Kutipravesika Rasayana*) depending upon the need of patients.

**Scientific evidence of some *rasayankalpas* and other proved single herbs**

- **Multi-faceted protective role of Chyawanprasha**

*Chyawanprasha* showed significant immunomodulatory activity (decrease in Ig G, C3 and C4 levels in patients of recurrent cough and cold), cytoprotective action (cancer patients receiving radiation therapy showed a protective role against radiation induced tissue damage) and Genoprotective action (significant

reduction in Mitotic Index (MI) and Chromosomal Aberrations (CA) [11]

- **Immunomodulator and Anti-tumor action of *Ashwagandha***

*Ashwagandha* acts as an immunomodulator and hence can enhance life span of cancer patients, where lowered immunity states of the patient are the cause of concern. The results suggest its use as anti-tumor [12] and immune modulator agent [13]

- ***Ashwagandha* (*Withaniasomnifera*) and aging**  
Statistically significant increase in Haemoglobin, RBC count, hair melanin & seated stature and decrease in serum cholesterol and ESR is found by using *Ashwagandha* powder in old age. [14]

- **Improvement in Quality of vision by *Palash* (*Butea monosperma*)**

*Butea monosperma* root distillate in the management of age related immature cataract: The root distillate drops of *Butea monosperma* developed as per I.P Standards has shown significant improvement in visual acuity and quality of vision (disturbance in vision viz haziness and diplopia) in the subjects of age related immature cataract (n=52) [15].

- ***Shallaki* (*Boswellia serrata*) in Rheumatoid arthritis**

*Shallaki* Vs Diclofenac sodium: 600 mg of *Shallaki* thrice in a day and 50 mg. of Diclofenac Sodium thrice in a day was given in experimental and control groups respectively for four weeks. Efficacy of *Shallaki* was found to be comparable to that of Diclofenac Sodium in the patients of RA, who demonstrated predisposition for gastric intolerance with anti-inflammatory medication. [16]

- ***Guggulu* (*Commiphora wightii*) in Hyperlipidaemia**

*Guggulu* (*Commiphora wightii*) Vs Placebo: Cardinal clinical manifestations of disease like precordial pain and dyspnoea were relieved in in most of the cases in a clinical study tried with *Guggulu* in the dose of 8 gm/day. Substantial fall in lipid fractions like cholesterol 27%, triglycerides 36%, phospholipids 20% and free fatty acids 37% indicated the possibility of regression of atherosclerosis. The reversal of ECG

changes substantiated the anti-ischemic effect of the drug in the treatment of ischemic heart diseases. [17]

- **Guduchi (Tinosporacordifolia) as immuno-modulatory agent**

Clinical studies of *Guduchi* have shown significant efficacy in the cases of obstructive jaundice. [18]

- **Management of hemiplegia by Panchakarma:**

Comparative study of 744 hemiplegics revealed that 552 subjects who received Panchakarma therapy showed significant recovery from illness, with improvement in motor functions and quality of life in comparison to subjects who received *Shamana* therapy (palliative therapy) alone [19].

- **Kantakari (Solanum xanthocarpum) in TamakaSwasa (Bronchial asthma)**

In a clinical trial on 44 patients of Bronchial asthma, decoction of *Kantakari* in doses of 60-200ml daily with honey was given for a period of 15-20 days on an average. Out of 21 cases of *Sleshmapradhana Tamakaswasa*, 70-75% shown complete or significant response and out of 23 cases of *Vatapradhana Tamakshwasa* 30% showed complete response and in more than 50% cases significant reduction in intensity of dyspnoea and cough was observed. [20]

## Diet and Nutrition in geriatric care

As per *Ayurveda* concepts, there is increase of *Vaatdosha* in old age. *vishamagni* (Irregular digestive fire) resembles with *vaat*, so to maintain *Agni* in old age one should have meals with respect to status or strength of *Agni*. In old age diet should be well balanced low in saturated fats, add calcium rich diet, add fruits and green leafy vegetables.

Diet plays prime role in process of premature ageing. The faulty dietary habits like *Vishamashana*, *Adhyashana*, *Ajeernashana*, *Amla-Lavana Rasa atisevana* can hasten the process of ageing at micro as well as macro cellular level resulting into premature ageing. Therefore, it is important to follow the good dietary pattern prescribed in *Ayurveda* classics so as to live young for a long time with healthy ageing and happy life. [21]

## Behavioral and Ethical considerations (Sadvratta) in old age

### Achar rasayan (Good conduct)

To prevent from psychosomatic disorders in old age one can adopt methods like *Achar Rasayana* [22] mentioned in table below

**Table 3: Achar Rasayana**

<i>Achar Rasayan</i>	<b>Good Conduct</b>
<i>Satyavadinam</i>	True speaking
<i>Akrodham</i>	Refrain from anger
<i>Nivruttammadyamaithunat</i>	Refrain from alcohol and sexual acts
<i>Ahimsakamanayasam</i>	One should be Nonviolent and avoid exertion
<i>Prashantam</i>	One should be peaceful
<i>Japashauchparam</i>	Always busy in chanting of god's name and cleanliness
<i>Dheeram</i>	One should be Courageous
<i>Samajagaranaswapanam</i>	One should sleep and get up at proper time
<i>Nityamkshiraghrishinam</i>	Include milk and ghee in daily meals
<i>AdhyatmaPravanendriyam</i>	Always inclined towards spirituality
<i>Dharmashastrparam</i>	busy in reading religious books

### Alcohol and elderly

It is linked to liver diseases, hypertension, stomach ulcers, heart disease, gout, depression and osteoporosis [23]. Sensitivity to the effect of alcohol is directly proportional to the age.

## DISCUSSION

Though the risk of developing diseases increases with progressing age, but it is not an unavoidable result of aging. Prevention and treatment of health problems may help the elderly to improve quality of life and remain independent for their daily activities to some extent. Variety of single



and compound *Rasayana* medicines possessing diversified actions like immuno-enhancement; free-radical scavenging, anti-depressant and nutritive effects are described in *Ayurveda* literature for their use in health promotion and curing diseases with betterment in the quality of life. *Rasayanchikitsa* for old age is cost effective and affordable by all sections of people, well tolerated and has no adverse reactions. Non-pharmacological treatment like *Aacharasayan* may be very useful in geriatric care to keep mental health stable. Lifestyle modulation (*Swathavritta* and *Sadvritta*) remains integral to the prevention of elderly problems.

## CONCLUSION

Geriatric is such stage of life in which one has to face physical, psychological, socio-economic problems. Here in this paper honest attempt has been made to address the issues of old age to some extent. Multi-dimensional approach of *Ayurveda* in prevention of ageing and curing elderly disorders may provide some new hope. This research opens new windows for further study on group of drugs like *Vayasthapanamahakashaya* a *Dashemani* (group of ten drugs) having *Rasayana* properties which promotes overall nourishment of body tissues. Research may be conducted on each single drug or by taking collective measures such as dietetics, *panchakarma*, *dinacharya-rutucharya*, *sadvrutta*, *yoga* and other spiritual methods.

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