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## **HEALTHY AGEING THROUGH AYURVEDA**

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#### **ABSTRACT**

Ageing is a process natural for human beings wherein the being is ultimately subjected to death. Rather than saying a person becomes old, *Ayurveda* describes the ageing of *Vruddha* (growing further) as a state of development. *Ayurveda* has considered *Jara* (ageing) as a natural and inevitable process i.e it is a *Swabhavaja Vyadhi*. As old age sets in, homeostasis between the *tridoshas* is disturbed. *Jara* represents the structural and functional changes of an organism over its entire life span. According to the 2011 population census there are nearly 104 million aged people in India and this number is expected to grow to 173 million by 2026. The aged have become one of the cardinal concerns due to the health related issues they tend to face.

Jarachikitsa is the branch of Ayurveda that deals with the problems of the elderly. Jara is the process of ageing during the later legs of life when degeneration of body tissues and sense organs occurs at a fast pace. Ayurveda advocates an excellent approach towards promotion of health and prevention of diseases with a littany of measures like, a wholesome diet in proper quantities, dinacharya, ratricharya, ritucharya, sadvrut palana, achara rasayana, practice of yoga, rasayana therapy and panchakarma. The proper practice of all these measures can slow down the process of ageing and act as a home remedy for the diseases the senile are susceptible to.

Keywords: Jara, Ageing, Ayurveda, Vruddhapya, Jarachikitsa, Rasayana

**INTRODUCTION:** Jara is referred to as old age. Ayurveda has considered Jara as a natural and inevitable process as well as swabhavaja vyadhi<sup>1</sup>. The word Jara has been derived from the root 'Iru' which means declining stage or old age. 'Jara' is defined as the phenomenon of becoming old by the act of wearing out. The last stage of human life- 'Vriddhawastha' corresponds to old age. The Brihatrayis have classified Vaya with 3 major categories as Balyavastha(childhood), *Madhyamavastha*(youth) Vruddhavastha or Jeernavastha(old age) but there are a few difference in opinions regarding the range of ages. According to *Charaka*, old age starts from 60 years <sup>2</sup> while *Sushruta* considers it 70 years onwards <sup>3</sup>. *Sushrutacharya* has mentioned a group of natural diseases under the heading of *Swabhavabalapravrutta Vyadhi* (natural diseases) which includes *Jara*. They are of two types – *Kalaja* (mature) and *Akalaja jara* (premature) <sup>4</sup>. Out of these two types of ageing, *Akalaja jara*, occurs due to not proper following of *sadvritta* and *swasthavritta*. It can be interpreted that biological ageing is more intense than chronological ageing. It can be avoided by sufficient care of daily and

seasonal regime or by the use Rasayanas. In case of Kalaja jara the symptoms of ageing appear at appropriate time and there will simultaneous occurrence of chronological and biological ageing and is incurable. However *Chakrapani* is of the opinion that though Jara is Nishpratyanika<sup>5</sup> i.e it completely eliminated. cannot be Rasayana can delay ageing and also provide relief against its symptoms.

#### **Synonyms**

Vruddha- one who has already attained vriddhi

Pravaya- one who has crossed his youth Sthavira- one who has stayed for a long time

Jeerna/Jaran /Jarita- one who is attaining deterioration<sup>6</sup>

Ageing can be defined as the normal process of life which is characterized by

the degeneration of organs of various systems and consequently losing their anatomical and physiological functions. The preventive measures described in Ayurveda minimize the increased risk related to normal physiological processes of ageing and increased prevalence of coexisting systemic disease. The increased Vata in old age is responsible for Vishamagni which affects the process of digestion, *Pitta* is irregular while *Kapha* is in the depleted state causing improper nourishment of Rasadhatu leading to the decrease in the strength of successive Dhatus. This in turn decreases the Ojas. This cascade of events targets the Vyadhikshamatva as well as the Satwa of the aged, submerging him in diseases. This process is gradual and amounts to an irreversible process called ageing<sup>7</sup>.

# SIGNS AND SYMPTOMS OF JARA

Table No:1: Physical signs and symptoms <sup>8</sup>.

- Vali (Wrinkles)
- Palithya (Grey hair)
- *Khalithya* (Hair loss)
- Danta shaithilya (Dental loosening and loss)
- *Krishata* (Emaciation)
- *Hasta-pada-jihva-greeva kampa* (Tremors)
- *Shaktiksheenata* (Loss of power)
- Balahani (Loss of energy)

- Shukra apravartana (Loss of libido)
- *Dhatu ksheenata* (Decay of tissue)
- Vata vyadhi (Neurological disorders)
- Shithilangata (Looseness)
- Rakta vidaha (Burning sensation)
- Oja kshaya (Loss of immunity)
- Dristimandhya (Diminished vision)
- Vak shakti hani (Diminished speech)

# Table 2 Mental signs and symptoms <sup>9</sup>.

- Avasannata and Nairasya (Depression)
- Ekagrata nasha (Loss of concentration)
- Smriti nasha (Loss of memory)
- Swabhava parivartana (Changed nature)
- Chinta (Anxiety)
- Krodha (Anger)
- *Utsaha hani* (Loss of enthusiasm)
- *Ghrina* (Hatred)

# Akalaja Jara

Akalaja Jara (premature ageing) commonly seen in the present day. In Ayurveda there is a mention about the sequential loss of certain biological factors due to ageing. There are descriptions of several etiological factors for premature

ageing in the classical texts which are broadly placed under the headings as Aharaja, Viharaja and Manasika nidanas.

## Aharaja nidana:

Excess consumption of Aharadravyas having Amla (sour), Katu (spice), Lavana (salt)Rasas, Guru(heavy), Ruksha (dry),

Klinna (softened), Abhishyandi (which obstruct the channels of circulation). Puti (putrid) and Paryushita (stale) accelerate the ageing process. Pishtanna (rice flour preparations), Nava shuka dhanya (newly harvested pulses), Shushka mamsa rasa Viruddha (dried meat), (incompatible food) and Asatmya ahara (unwholesome diet) produce Ama leading to Agnimandhya (reduced digestive fire) and accelerate the process of ageing <sup>10</sup>.

Studies suggest that a high calorie diet influences the rate of ageing and the onset of associated diseases in animals and possibly humans. Caloric Restriction (CR) extends life span and retards age in certain animals. CR reduces metabolic rate and oxidative stress. improves insulin sensitivity and alters neuro-endocrine and sympathetic nervous system functions in animals 11. Addiction to smoking and alcohol are well known etiological factors of premature ageing<sup>12</sup>. Chronic cigarette smoke exposure melts away subcutaneous tissue. The natural glow disappears from the skin and because of carbon monoxide binding haemoglobin, the skin colour looks more grayish. In addition to this, the blood vessels become narrow. Alcohol causes loss of subcutaneous fatty tissue and it also interferes with the elimination of estrogen. So the skin develops wrinkles, loss of elasticity and collagen, redness and puffiness <sup>12</sup>. In other words alcohol abuse leads to premature ageing <sup>12</sup>.

## Viharaja Nidana:

Divaswapna (day time sleep), Avyayama (sedentary life style) and Ati Vyavaya (excess indulgence in sexual act) are causative factors for Akalaja Jara <sup>13</sup>.

A sedentary life style increases the propensity to ageing related diseases and premature ageing. Inactivity may influence

ageing process itself. Inactivity shortens telomeres and damages the DNA leading to premature ageing. The excess use of electronic gadgets, exposure to radiations and environmental pollution accelerates skin ageing as well as that of the related sense organs<sup>14</sup>.

The radiations of UV light penetrate deep into the skin. This makes the subcutaneous fat melt away 14.

#### Manasika Nidana:

Emotions like Bhaya (fear), Shoka (grief), Lobha (greed), Moha (excessive worldly attachments) also accelerate senescence <sup>15</sup>. Occupational, financial and familial stress also leads to premature ageing by lowering the body's immunity. Mental illness like depression leads to the shortening of telomeres. This in turn causes cell death in the most rapidly dividend cells like in the skin and hair follicles <sup>16</sup>. The end result is premature ageing.

#### Anti ageing measures in Ayurveda

To highlight the preventive measures described in Ayurveda, the following measures are explained

- Dinacharya, Rutucharya 1. and Swasthavrutta.
- Regimens which should followed in day to day life are called Dinacharya <sup>17</sup>.
- Brahmi muhurtha (Early Morning) - Waking up early increases life.
- Personal Hygiene like Oral hygiene, Dantha Dhavana (Brushing the teeth), Jihva Nirlekhana (Tongue Cleaning), Tambula Sevana (Chewing leaves), (Gargling), betel Gandusha (Collyrium) Karnapoorana Anjana (Instilling Oil in Ears), Nirmala ambhara dharana (Wearing clean clothes), Ratna dharana Abharana (Ornaments), Sugandha Gandhamala dharana

(Fragrance). Kavala and Gandusha described in Dinacharya can be co-related to Oil Pulling, which has been used to decay.oral prevent malodour, bleeding, dryness of throat, cracked lips, for strengthening the teeth, gums and the jaw. It enhances the senses, brings about a feeling of freshness and maintains clarity in the voice. It strengthens the facial muscles and also alleviates Kapha Dosha.

- Care for Hair and Nails (Kesha Shmashru Nakhadi samprasadana), Padatra dharana (Use of Footwear), Dhandha dharana (Use of Walking stick), *Nitya Snana* (taking daily bath)
- Nasya (Nasal Drops), Murdhni Taila (Oil application to head), Abhyanga (Physical (Massage) and Vyayama Exercise).

All these are considered as Ayushkara (Longevity)

- Regimen according to Rutu is Rutucharya. Ritucharya is followed according to Ritu. Mainly Ritu shodhana helps in longevity. Vamana therapy in Vasanta rutu, Virechana in Sharad rutu and Basti therapy in Varsha rutu are recommended for the prevention of diseases and maintenance of health 18.
- The codes and conduct which should be followed by a person for a social life is concerned with Sadvrutta. If one follows these measures properly the

physical and mental health can be prolonged.

#### Rasayana:

The methods that give optimum quality of the *Dhatu* and in turn allow *Dhatus* to flow all over the body through different srotas so that the entire body gets proper nourishment is called *Rasayana*. As per Ayurvedic classics, *Rasayana* therapy works on Agni which in turn leads to the proper formation of Rasadi Dhatus, hence responsible for creation of *Ojas* which is considered as the prime essence of these Rasadi Dhatus. This is responsible for the proper working of the immune system in the body in terms of Vyadhikshamatva. Hence Rasayana plays a crucial role in prevention of ageing and old age related disorders 19.

The probable mode of action of *Rasayana* therapy as per contemporary science is as follows.

- 1. Antioxidant action- *Amalaki*<sup>20</sup>
- 2. Immunomodulatory action- *Guduchi*<sup>21</sup>
- Haemopoietic effect-Bhringaraja<sup>22</sup>, Mandura, Lauha bhasma<sup>23</sup>
- 4. Adaptogenic action- *Ashwagandha*<sup>24</sup>
- 5. Anti ageing action- Ashwagandha,  $Bala^{25}$
- 6. Anabolic action- Vidarikanda<sup>26</sup>
- 7. Nutritive function- *Ghrita*, *Ksheera*<sup>27</sup>
- 8. Necroprotective action- Ashwagandha<sup>24</sup>, Swarna bhasma<sup>28</sup>. Rajata bhasma<sup>28</sup>

Table 3: Different Rasayanas indicated in various decades of life<sup>29</sup>

Serial number	Decades of life according to	Hani	Indicated Rasayana
Humber	Sharangadhara		
	(in years)		
1.	1-10	Balya (childhood)	Vacha, Swarna
2.	11-20	Vruddhi (growth and development)	Kashmari, Bala
3.	21-30	Chavi (Lustre and complexion)	Amalaki, Manjishta
4.	31-40	Medha (intellect)	Shankapushpi
5.	41-50	Twak (skin and appendages)	Bhringaraja, Jyotishmati
6.	51-60	Drishti (visual activity)	Triphala, Shatavari

7.	61-70	Shukra (potency and fertility)	Atmagupta, Ashwagandha
8.	71-80	Vikram (valour)	Amalaki, Bala
9.	81-90	Buddhi (cumulative, intellect and cognitive functioning)	Brahmi , Mandukaparani
10.	91-100	<i>Karmendriya</i> (physical capacities or motor functions)	Bala, Ashwagandha

## 3. Vayastapana (Age stabilizing drugs)

explained Acharya Charaka has Vayastapana Mahakashaya as a group of drugs which promote overall nourishment of body tissues<sup>30</sup>. These can be used for anti ageing purposes as they have Rasayana properties. They are

- Amruta-Tinospora cardifolia
- Abhaya- Terminalia chebula
- Dhatri- Embilica officinalis
- Mukta (Rasna)- Pluchea lanceolata
- Shweta (Rasnabheda)- Alpenia galanga
- Jeevanti- Leptadenia reticulata
- Atirasa- Asparagus racemosus
- Mandukaparni- Centella asiatica
- Sthira- Desmodium gangeticum
- Punarnava- Boerhavia diffusa

#### 4. Panchakarma

Panchakarma therapy possesses numerous preventive, curative and promotive potentials which impart a rehabilitative effect and are helpful in maintaining physical fitness. These therapies aim at promoting longevity in life by guiding the individuals in the prevention of disease.

Application of Anu taila nasya and Nitya Gandusha slows the process of ageing <sup>31</sup>. Some intermediary palliative measures like Swedana. Abhyanga, Kayaseka, Shirodhara, Shirobasti are useful in preventing premature ageing.

Basti : A shodhana karma especially indicted in Vata Vyadhis, bestow Sukhayu and act as Vayasthapana i.e maintain youthfullness . Matra Basti is one of the Sneha Bastis (Unctous Enema), which promotes *Bala* (Strength) of the person<sup>32</sup>.

Yapana Basti likely to produce anti-ageing has both It Rasayana Shodhana effects i.e nourishing evacuatory measure (Purification of Dosha primarily *Vata Dosha* which has main seat in Pakwashaya). Since Vata is the main Dosha, which triggers the process of ageing, periodical evacuation of Vata Dosha checks the process of ageing  $^{33}$ .

5. Achara Rasayana: There is also another method of Rasayana Chikitsa described by Charakacharya. It is called Achara Rasayana which is based on the flawless behavior pattern good and combined with purity of mind and thoughts <sup>34</sup>.

**DISCUSSION**: Jara is that stage of an individual when one feels decline in the physical, physiological as well as the mental activity. Avurveda gives importance to Geriatric care as it is one among the branches of Avurveda. Ayurveda has distinguished the two types of Jara as Kalaja and Akalaja. Kalaja jara is mentioned as Swabhavikavyadhi, which cannot be prevented by any measures. Whereas *Akalaja Jara* can be prevented by adopting Dinacharya, Rutucharya, Swasthavrutta, intake of Rasayana drugs and following regular Panchakarma procedures. During the process of *Vaya* the Hrasa or decline in specific features can be observed in specific decades. Jara Chikitsa has a good scope in the present scenario as a preventive tool.

CONCLUSION: Ayurveda paves way for lengthening of the onset of senility. The Ayurvedic treatment for old age is one of the 8 important branches of the Ayurvedic medicine. system of Avurveda recognized Kala or Parinama as potential causative factor of Jara. Classical texts of Avurveda contain a good number of anti ageing drugs which are aimed at slowing down the ageing process. Modified improper dietary patterns, sedentary life styles, excessive stress and anxiety enhance the process of ageing. Ageing cannot be cured but can be delayed with the help of rejuvenation therapy. There is a lot of scope for Jarachikitsa medicine in Ayurveda as it has enriched knowledge in the discipline of Rasayana Chikitsa. One can live true to "Add life to years rather than years to life" through Ayurveda.

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