ABSTRACT: Jara (Ageing) is the natural phenomenon. Hence old age is unavoidable. During Vriddhavastha, there is predominance of Vata dosha which accelerates the process of ageing. On the other hand there is deterioration of Rasadi dhatus which in turn affects the general health of aged people. So, proper health care is very much needed during this phase of life. In Ayurveda Jara chikitsa (also known as Rasayana chikitsa) is meant for geriatric health care. Rasayana is one of the best vayasthapak (prevents ageing) and complete health care measures for aged people. Acharya Sushruta has described it as the methods of withholding ageing, increasing life span, intelligence, strength and capacity to get rid of diseases. It prevents Akalaja jara (premature ageing) and delays Kalaja jara (natural ageing). Geriatric health care can be provided by age specific, disease specific, dhatu specific, medhya and achara rasayana. Hence rasayana provides physical, mental and social support to aged person. This article is based on the review of Geriatric health care through Rasayana.

Key words: Ayurveda, Geriatric, Jara, Ageing, Rasayana.
INTRODUCTION:

Aged people are one of the important pillar of our society. So, proper geriatric health care is very much needed for healthy society. The number of people aged 65 or older is projected to grow from estimated 524 million in 2010 to nearly 1.5 billion in 2050.[1] The population of people above 60 in India will increase from 7.6 million in 2001 to 137 million by 2021.[2]

The word Geriatric has a close link with Sanskrit word ‘Geeryadi’ which means degenerated. The term ‘Geriatrics’ comes from the Greek word ‘geron’ meaning ‘old man’ and ‘iatros’ meaning ‘healer’. Geriatrics is a specialty that focuses on health care of elderly people. It aims to promote health by preventing and treating diseases and disabilities in older adults.[3] In Ayurveda this is called ‘Vriddhopachareneyam’. According to Acharya Vagbhatta, Jara chikitsa (also known as Rasayana chikitsa) is one among the eight branches of Ayurveda which is similar to Geriatrics.[4] Rasayana specially deals with the science of nutrition, geriatric care and rejuvenation.

MATERIALS AND METHODS:

As the present study is a review article, different Ayurvedic texts, published research papers and available materials on internet have reviewed for this article.

Concept of Jara – Jara (Ageing) is swabhava or natural phenomenon like hunger, thirst, death and sleep.[5] It can be defined as phenomenon of becoming old by the act of wearing out (Jiryati iti jara). It is also called ‘Vardhakya’ meaning increasing
The last stage of human life is Jirnavastha or Vriddhavastha. As per Acharya Caraka, Vriddhavastha is considered above the age of 60 years. On the other hand as per Acharya Sushruta and Vagbhatta, it is considered above the age of 70 years.

According to Acharya Caraka, during old age there are diminution of the dhatus (tissue elements), strength of sense organs, energy, manliness, valor, power of understanding, retention, memorising, speech and analysing facts. According to Acharya Sushruta, old person develops Vali (wrinkles of the skin), Palita (grey hairs), Khaliitya (baldness), suffers from Kasa (cough), Shwasa (dyspnoea) and such other secondary diseases, inability to perform all activities, survives like an old house drenching in rain. According to Acharya Vagbhatta, during this period there is increase of maruta (vata) which causes Agnisada (diminished digestive power), Slatha Saramamsasandhyasthita (flabbiness of muscles, joints and bones), Tvak parushya (roughness of skin), Avanam (bending of the body), Vepathu (tremor), Kasa (cough), Shwasa (dyspnoea) etc.

**Concept of Rasayana** – The word Rasayana (Rasa – nutrition and Ayana - transportation) refers to improve the transportation of nutritional materials to different tissues of the body. According to Acharya Caraka it is the means by which one can achieve excellence to tissue elements. Acharya Sushruta has described it as the methods of withholding ageing, increasing life span, intelligence, strength and capacity to get rid of diseases. Acharya Sharangadhara defines it as the as the drugs which ward off old age and diseases.

**Classification of Rasayana** – It can be classified as follows.

I. According to dravya etc.
   i. Dravyabhuta rasayana
   ii. Adravyabhuta rasayana

II. According to method of use –
   i. Kutipraveshika (Indoor rasayana therapy)
   ii. Vatatapika (Outdoor rasayana therapy)

III. According to scope of use –
   i. Ajasrika rasayana (Daily rejuvenatives)
   ii. Kamya rasayana (Promoter of normal health)
      a) Prana kamya (Promotes longevity)
b) Medha kamyā (Promoter of intelligence)
c) Shri kamyā (Promoter of complexion)

iii. Naimittika rasayana (Promotes the vitality in specific disease)

IV. According to content of rasayana –
i. Aushadha rasayana
ii. Ahara rasayana
iii. Achara rasayana

**Mode of action** – All rasayana measures and remedies produce their effect in mind-body system through one or all of the following three modes.

i. At the level of rasa (promoting nutrient value of plasma)

ii. At the level of agni (promoting biofire system responsible for digestion and metabolism)

iii. At the level of srotas (promoting micro-circulation and tissue perfusion) \(^{[13]}\)

**Effects of Rasayana** – A person undergoing rejuvenation therapy attains longevity, memory, intellect, freedom from diseases, youth, excellence of lustre, complexion and voice, excellent potentiality of the body and sense organs, vak-siddhi (i.e. what he says comes true), respect and brilliance.\(^{[14]}\)

**Geriatric health care through Rasayana** – It can be discussed under following headings –

i. Age specific rasayana
ii. Disease specific rasayana
iii. Dhatu specific rasayana
iv. Medhya rasayana
v. Achara rasayana

(i). **Age specific rasayana** – Acharya Sharangadhara described the ten phasic sequential bio-losses occurring during first to tenth decades of life which may be restored by age specific rasayana.\(^{[15]}\)
TABLE-1: AGE SPECIFIC RASAYANA

<table>
<thead>
<tr>
<th>Sr.no.</th>
<th>Age (in years)</th>
<th>Qualities lost</th>
<th>Recommended rasayana</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1-10</td>
<td>Balya (childhood)</td>
<td>Vacha, Swarna</td>
</tr>
<tr>
<td>2.</td>
<td>11-20</td>
<td>Vriddhi (growth)</td>
<td>Kashmiri, Bala, Ashwagandha</td>
</tr>
<tr>
<td>3.</td>
<td>21-30</td>
<td>Chavi (colour and complexion)</td>
<td>Amalaki, Lauha</td>
</tr>
<tr>
<td>4.</td>
<td>31-40</td>
<td>Medha (intelligence)</td>
<td>Shankhapushpi, Brahmi, Jyotishmati</td>
</tr>
<tr>
<td>5.</td>
<td>41-50</td>
<td>Tvak (skin health)</td>
<td>Tuvaraka, Somaraji, Bhringaraja</td>
</tr>
<tr>
<td>6.</td>
<td>51-60</td>
<td>Drishti (vision)</td>
<td>Triphala, Jyotishmati, Dhatrilauha</td>
</tr>
<tr>
<td>7.</td>
<td>61-70</td>
<td>Shukra (semen)</td>
<td>Atmagupta, Ashwagandha</td>
</tr>
<tr>
<td>8.</td>
<td>71-80</td>
<td>Vikrama (physical strength)</td>
<td>Amalaki, Bala, Mahabala</td>
</tr>
<tr>
<td>9.</td>
<td>81-90</td>
<td>Buddhi (wisdom)</td>
<td>Brahmi, Mandukaparni</td>
</tr>
<tr>
<td>10.</td>
<td>91-100</td>
<td>Karmendriya (activities of motor organs)</td>
<td>Bala, Ashwagandha, Sahachara</td>
</tr>
</tbody>
</table>

(ii). Disease specific rasayana (Naimittika rasayana) – Aged people are easily afflicted by many diseases. Naimittika rasayana has a major role during diseased condition. It is not the specific treatment for a particular disease but it is adjuvant to the specific therapy which provides bio-immune strength to the ailing one.[16]
TABLE-2: DISEASE SPECIFIC RASAYANA

<table>
<thead>
<tr>
<th>Sr. no.</th>
<th>Name of the disease</th>
<th>Recommended rasayana</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Netra roga (Eye diseases)</td>
<td>Triphala, Shatavari, Yashtimadhu</td>
</tr>
<tr>
<td>2.</td>
<td>Hrid roga (Heart diseases)</td>
<td>Arjuna, Pushkaramula, Guggulu</td>
</tr>
<tr>
<td>3.</td>
<td>Tvak roga (Skin diseases)</td>
<td>Bakuchi, Gandhaka, Bhallataka, Vidanga</td>
</tr>
<tr>
<td>4.</td>
<td>Yakshma (Tuberculosis)</td>
<td>Pippali, Rasona, Nagabala, Shilajatu</td>
</tr>
<tr>
<td>5.</td>
<td>Pandu (Anaemia)</td>
<td>Amalaki, Lauha rasayana</td>
</tr>
<tr>
<td>6.</td>
<td>Shwasa (Dyspnoea)</td>
<td>Haridra, Shirisha, Agastya, Rasna</td>
</tr>
<tr>
<td>7.</td>
<td>Vatavyadhi</td>
<td>Rasona, Guggulu, Bala, Nagabala</td>
</tr>
<tr>
<td>8.</td>
<td>Madhumeha (Diabetes)</td>
<td>Shilajatu, Amalaki, Haridra</td>
</tr>
<tr>
<td>9.</td>
<td>Medo roga (Lipid disorders)</td>
<td>Guggulu, Haritaki</td>
</tr>
<tr>
<td>10.</td>
<td>Unmada (Psychosis)</td>
<td>Brahma, Shankhpushpi, Mandukaparni,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jyotishmati</td>
</tr>
</tbody>
</table>

(iii). Dhatu specific rasayana – Dhatu. These rasayanas provide nourishment to the dhatu and also prevent them from diseases.
TABLE-3: DHATU SPECIFIC RASAYANA

<table>
<thead>
<tr>
<th>Sr. no.</th>
<th>Name of the dhatu</th>
<th>Recommended rasayana</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rasa</td>
<td>Draksha, Kashmari, Kharjura, Kshira</td>
</tr>
<tr>
<td>2.</td>
<td>Rakta</td>
<td>Amalaki, Lauha</td>
</tr>
<tr>
<td>3.</td>
<td>Mamsa</td>
<td>Bala, Nagabala, Ashwagandha</td>
</tr>
<tr>
<td>4.</td>
<td>Meda</td>
<td>Shilajatu, Guggulu, Amrita</td>
</tr>
<tr>
<td>5.</td>
<td>Asthi</td>
<td>Laksha, Sukti, Sankha</td>
</tr>
<tr>
<td>6.</td>
<td>Majja</td>
<td>Lauha, Vasa, Majja</td>
</tr>
<tr>
<td>7.</td>
<td>Shukra</td>
<td>Ashwagandha, Atmagupta, Shatavari</td>
</tr>
</tbody>
</table>

(iv). Medhya rasayana – They are beneficial in delaying the brain ageing associated with old age. They also help in prevention and cure of different neurological and psychiatric disorders. Acharya Caraka has mentioned four medhya rasayana which are as follows.

   a) Mandukaparni (swarasa)
   b) Yashtimadhu (curma)
   c) Guduchi (swarasa)
   d) Shankhapushpi (kalka)

They increase longevity, cure diseases and promote bala (strength), agni (power of digestion and metabolism), varna (complexion) and svara (voice). Among them, Shankhpushpi is the best drug for the promotion of intellect.[17]

(v). Achara rasayana – It is a non-pharmacological way of rejuvenation. It gives idea about healthy lifestyle. It provides positive social and mental health.

A person must be truthful, free from anger, devoid of alcohol and sexual indulgence, do not indulge in violence and exhaustion. A person must be peaceful and pleasing in his speech, practice japa, cleanliness, charity and tapas (penance). A person should regularly offer prayers to gods, cows, Brahmanas, teachers, preceptors and old people. A person must be absolutely
free from barbarous acts, his period of awakening and sleep is regular, must take milk and ghrita regularly. A person must be free from ego, having good conducts, self-controlled and regularly study scriptures. If persons endowed with these qualities practice rejuvenation therapy, they get all the rejuvenation effects described above.[18]

**DISCUSSION:**

*Jara chikitsa (Rasayana chikitsa)* is one of the most important branch of Ayurveda. It has a major role in Geriatric health care. There is detailed description of *rasayana* in Ayurveda. In this article age specific, disease specific, dhatu specific, medhya and *achara rasayana* have discussed. *Rasayana* drugs are likely to be nutrient tonics, anti-oxidants, anti-stress, adaptogen and immuno-modulators. The net effect of all these attributes show anti-ageing effect. Certain recent studies on popular rasayana drugs like *Amalaki, Ashwagandha, Guduchi, Brahmi* etc and compound formulation like *Chyavanaparasha* have shown good anti-ageing effects.

**CONCLUSION:**

*Jara* is the natural phenomenon. It cannot be prevented but can be delayed by the proper use of rasayana. It is complete health care measures for old people. It can be able to provide physical, mental and social support to aged person. It is capable to counter act the *jara lakshana and jara janya vyadhis*. Thus improve the quality of life during old age.

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