A REVIEW ARTICLE ON GERIATRIC CARE IN AYURVEDA

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ABSTRACT

Aging is the process that reduces the number of healthy cells in body; therefore, the body loses its ability to respond to a challenge (external or internal stress) to maintain homeostasis. Ayurveda science has addressed geriatric health issues under a heading “Jara”. In Ashthang Ayurveda “Jara” is incorporated at 7th number among its eight branches. “Rasayan Tantra” a special branch of medicine in Ayurveda, exclusively devotes to “Jara Janya Vyadhi”. Ayurveda science basically aims at promotion of health of individual and management of diseases. That’s why the foremost classic of Ayurveda, the Charakasamhita begins its Chikitsasthana with Rasayanachikitsa. Use of Rasayan therapy in “Jara Janya Vyadhi” works at primary level of our biological system as well as it saves the patient from side effects of modern medicine.

Key words – Aging, Rasayan, Senile diseases, side effect.

INTRODUCTION

Ageing is a process of physical, psychological and social change in multi-dimensional aspects. The World population of the elderly is increasing and by the year 2050, adults older than 65 years will comprise 1/5th of the global population. In India 3.8% of the population are older than 65 years of age. According to an estimate the likely number of elderly people in India by 2016 will be around 113 million. The leading causes of mortality among aged people comprise respiratory problems, heart diseases, cancer and stroke. Significant causes of morbidity among this group are chronic inflammatory and degenerative conditions such as arthritis, diabetes, osteoporosis, depression, psychiatric disorders, Parkinson’s disease and age related urinary problems.

Ayurveda, the Indian traditional holistic health science has got the potential for prevention of diseases by promotion of health and management of diseases occurring in old age. It has a focused branch called Rasayana (Rejuvenation) which deals with the problems related to ageing and methods to...
counter the same. Geriatrics or Jara chikitsa or Rasayana in Ayurveda is a unique therapeutic methodology to delay ageing and to minimize the intensity of problems occurring this degenerative phase of one’s life. Ayurvedic literature record numerous single and compound plant based medicines, herbo-mineral, herbo-metalic (a few) formulations for general wellbeing and in disease specific conditions relating to geriatrics. The present review intends to evaluate the ancient concepts and recent developments in the field of geriatric care in Ayurveda.

The Dimensions of Geriatric Care

Geriatric Care has two distinct dimensions: No. 1. Promotion of health and longevity, No.2. Management of diseases of old age. The conventional modern medicine is apparently strong in terms of the second dimension, although the final outcome may not be significant because most of the diseases of old age are incurable. Ayurveda is notably strong in terms of the first dimension of the problem as it has rich potential to promote health of the elderly, besides the scope of rejuvenation and promotion of longevity. As stated earlier Ayurveda is essentially the Science of life and longevity.

The Phenomenon of Aging

Aging is essentially a physiological phenomenon which results because of time bound inherent evolutionary processes by the evolutionary changes occurring in the mind-body system. Such changes begin right in the beginning of life and get more and more complex with advancing chronological age. The progressing involution ultimately precipitates into extreme senescence and finally death. Thus life-span is a time bound entity and everybody is mortal. The main issue in geriatric care is not merely the concern about the physiological phenomenon which is inevitable; rather it is more the medical health problems and diseases specifically afflicting an individual in old age warranting medical management in order to sustain a comfortable and healthy aging. Thus geriatric care has to address to two-fold problems, firstly the delaying of physiological aging and secondly the medical management of diseases and disorders specifically occurring in old age such as hypertension, ischemic heart disease, diabetes, senile dementia, Alzheimer’s disease, Parkinsonism, degenerative arthritis, osteoporosis, opportunistic infections, prostatic enlargement, degenerative eye diseases like cataract, a range of angiopathies, neurodegenerative diseases and senile psychoses which cause major morbidity in old age. Ayurveda, being fundamentally the science of life and longevity, seems to have addressed these issues in a unique holistic manner involving not merely the biological care, rather also encompassing the psychosocial and spiritual dimensions. There are strong possibilities to develop a safe and cost-effective package for geriatric care on the basis of Ayurvedic life-style management, Rasayana therapy and practice of yoga.

Ayurveda links the phenomenon of biological aging with the doctrine of Tridosha. In principles the childhood is embedded with Kapha in the body (Growth activity), adulthood with Pitta (Metabolic activity) and old age with Vata Dosa (Degenerative activity). Vata Dosa, by nature, dries and decays the body and produces senile changes. Thus the phenomenon of aging can be evaluated in terms of the tridosika physiology, and aging
can be managed in tune with the Tridosha theory with Yukti of Samanya and Vishesa i.e. homology versus heterology besides specific rejuvenative Rasayana measures. The important medieval Laghuttrayi text of Ayurveda, namely Sarangadhara Samhita describes the process of aging depicting the involutionary features of specific bio-losses occurring during different decades of life due to aging.

Other important features of aging process are weakening of Agni, loss of integrity of Srotamsi and ojabala. Hence geriatric care warrants management of Agni, Ama Oja and dosa at biological level. Ayurvedic classics propound a unique concept of Ojas. Besides many other life-style related factors the generic remedy prescribed for promoting Ojas status is Rasayana therapy. All Rasayanas are beloved to promote Ojas. Another Rasayana described in Ayurveda i.e. Ajasrika Rasayana refers to daily rejuvenative dietetics. Regular use of Ghee, milk, fruits and vegetables in diet acts as Rasayana.

Role of Medhya Rasayana:
Besides general features of biological aging which occurs all over the body in all organs, tissues and cells, the brain is most common organ of changes. This is why the mental and neurological manifestations often form the hallmark of senility. Accordingly the care of neurodegenerative manifestations warrants the first attention in geriatric health care. Ayurveda seems to have understood this fact and has categorically described the psyche-brain deficit occurring in the fourth and ninth decades of the hundred year’s life-span in terms of loss of Medha and Buddhi. In terms of the science of today human brain is a highly sophisticated structure, its basic functioning units - the neurons are known to be energetically most powerful units but have extremely poor repair and regeneration potential and hence are prone to rapid senescence and degenerative changes.

The Ayurvedic classics and yogic texts describe a set of rejuvenative measures to impart biological sustenance of the bodily tissues, i.e. the Dhatus. These remedies are called Rasayana and are claimed to act as micronutrients. Though, the Rasayanas are generic rejuvenative remedies but some of them are specific to nervous system and are called Medhya Rasayana. Medhya Rasayans are new class of neuronutrients with cognition and memory enhancing, anti-aging and neuro-regenerative effect. Ayurveda considers aging as an inbuilt natural disorder. Sharangadhara (1300 AD) while describing the sequence of aging suggests that Medha, i.e. intellect stops growing by Fourth decade of life and Buddhi, i.e. thinking is lost by Ninth decade reading to senile dementia in a person of stipulated 100 years life span.

Brahmi (B.monniera) is now used as a memory enhancer and Mandukaparni (C. asiatica) is used in the care of mental retardation. Ashwagandha (W. somnifera) is an established antistress and adoptogen besides its efficacy in augmenting neuro-regeneration.

The Rasayana Therapy and Its Mode of Action:
Rasayana (Rasa = nutrition + Ayana = circulation and promotion) especially deals with the science of nutrition, geriatric care and rejuvenation. The strength of Ayurveda in the context of Geriatric care is Rasayana therapy. Rasayana stands as an answer in preventing premature ageing and to solve the problems due to ageing; it also ensures
healthful longevity including mental health and resistance against various geriatric disease conditions. There are specific Rasayana for different age groups, which help in restoring the loss of specific bio-values of respective ages.

**Table:** Specific Rasayana drugs according to age

<table>
<thead>
<tr>
<th>Age in yrs.</th>
<th>Bio-values which are on decline</th>
<th>Suitable Rasayana</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td>Balya (Childhood)</td>
<td>Vacha(Acornus calamus Linn.), Kasmari(Gmelina arborea Linn.), Svarna(Aurum)</td>
</tr>
<tr>
<td>11-20</td>
<td>Vriddhi (Growth)</td>
<td>Kasmari (Gmelina arborea Linn.), Bala (Sida cordifolia Linn.), Ashwagandha (Withania somnifera Dunal)</td>
</tr>
<tr>
<td>21-30</td>
<td>Chavi (Colour and complexion)</td>
<td>Amalaki (Phyllanthus emblica Gartn), Lauha Rasayana</td>
</tr>
<tr>
<td>31-40</td>
<td>Medha (Intelligence)</td>
<td>Shankhpushpi (Convolvulus pluricaulis Choisy), Yasthimadhu (Glycyrrhiza glabra Linn.), Ashwagandha (Withania somnifera Dunal), Guduchi (Tinospora cordifolia (Wild) miers)</td>
</tr>
<tr>
<td>41-50</td>
<td>Tvak (Skin Lusture)</td>
<td>Bhringaraja (Eclipta alba Hussk), Somaraji (Psoralea corylifolia Linn), Priyala (Buchanania lanzen Spreng.), Haridra (Curcuma longa Linn)</td>
</tr>
<tr>
<td>51-60</td>
<td>Drishti (Vision)</td>
<td>Triphala ghrita, Saptamrta lauha, Kataka (Strychnos potatorum Linn.f)</td>
</tr>
<tr>
<td>61-70</td>
<td>Shukra (Semen)</td>
<td>Kapikacchu bija (Mucuna pruriens Hook), Ashwagandha (Withania somnifera Dunal), Krishna musali (Curculigo orchioides Gaertn), Milk, ghrita etc.</td>
</tr>
<tr>
<td>71-100</td>
<td>These age group are not fit for Rasayana karma</td>
<td></td>
</tr>
</tbody>
</table>

Rasayana signifies not a single drug or medication, rather refers to a rejuvenate regimen. The primary levels/modes of Rasayana effect are

- At the level of Rasa (Promoting directly the nutrient value of plasma),
- At the level of Agni (Promoting biofire system responsible for digestion and metabolism)
- At the level of Srotas (Promoting micro-circulation and tissue perfusion)

**CLASSIFICATION OF RASAYAN:**

(1) As per scope of use:

A. Kamya Rasayana - which is used in healthy persons for further promotion of health. It is again of three subtypes:
   i. Prana kamya to promote longevity.
   ii. Srikamya to promote body lusture.
   iii. (iii) Medha kamya to promote mental competence

B. Naimittika Rasayana- which is used specifically in the treatment of specific diseases viz Silajatu in diabetes mellitus.

(2) As per method of use:

i. Vatatapika Rasayana i.e. outdoor regimen.
ii. Kutipravesika Rasayana i.e. intensive indoor regimen including biopurification by Panchakarma and consumption of selected Rasayana in well controlled conditions.
(3) As part of life-style:
   i. Ajasrka Rasayana as content of daily diet.
   ii. Achara rasayana (Good conduct) :- Ayurveda adopts Satvavajaya chikitsa (non-drug psychotherapies) that includes various codes of conduct (Achara rasayana) for maintenance of better mental health and to prevent various mental disorders
   iii. Divya Rasayana i.e. divine Rasayana

SOME OTHER SPECIFIC RASAYANA:
   Tissue and Organ Specific Rasayana:
   Besides the above mentioned three generic modes of action of Rasayana, some Rasayanas are organ and tissue specific and are used for specific indications like Medhya Rasayana as brain tonics, Hrdya Rasayana as cardiotonics, Vrsya Rasayana as sex tonics, Twacya Rasayana as skin tonics, Stanyya Rasayana as lactogenic tonics, Keishya Rasayana as hair tonics, Caksusya Rasayana as eye tonics, Kanthya Rasayana as tonics for throat and speech and so on.

Disease Specific Rasayana:
   Some Rasayanas are also disease-specific and are used in specific disease states as they induce specific immune and bio-strength to combat a particular disease. Such Rasayanas are called Naimittika Rasayana. The classical Naimittika Rasayanas are Sitalajatu for diabetes mellitus and Tubaraka for skin diseases and leprosy. There can be many other Naimittika Rasayanas identifiable by proper yukti.

Method of Administration of Rasayana
   The Rasayana therapy is administered in two broad forms with two main objectives. Firstly as outdoor regimen (Vatapatika Rasayana) for ordinary routine benefits as a tonic or food supplement. Secondly as an intensive indoor regimen (Kutipraveshika Rasayana) for Rejuvenation or Kayakalpa, where the patient is observed in a specially designed Trigarbha Rasayana Kuti i.e. a well-protected therapy chamber equipped with all therapeutic amenities. In the latter case the patient first undergoes a bio purification (Shodhan) therapy by Pancha Karma. After Pancha Karma he consumes the specific Rasayana for him in a prescribed dose and duration along with the prescribed dietetics (Ajasrika Rasayana) and the appropriate life-style and conduct (Aachara Rasayana). Rasayana administered without proper biopurification and without the Ajasrika and Aachara requirements, may not yield adequate results.

The Rasayana Effect and Rejuvenation:
   The Rasayana remedies described in Ayurveda are claimed to possess special nutritional supplement effect. Generally most of the Rasayanas are micromolecular nutrients and they act through nutrition dynamics and not really on pharmacodynamics like other drugs. The Rasayana drugs are likely to be nutrient tonics, antioxidants, anti-stress, adaptogen and immuno-modulators. The net effect of all these attributes is the anti-aging effect. Certain recent studies on popular Rasayana remedies like Amalaki, Ashtaginda, Gudachik, Brahmi and classical compound Rasayana Chyavanaprash have shown evidence to suggest their efficacy as anti-aging remedies

Role of Panchakarma in Geriatric care
   In Ayurveda Panchkarma have its own five bio-purificatory processes with rejuvenates activity. In geriatric practice an Ayurvedic physician uses selective rehabilitative Panchkarma therapy avoiding the drastic evacuator practices like Vamana and strong
Virechana procedures. The schedule in the elderly should consist of medicated massage, sudation, Kayaseka, Pindasweda, Sirodhara and Brimhana Basti suitably planned for each individual. Such a package could appropriately considered 'Geriatric Pancakarma'.

Ayurvedic Management of Diseases of old Age

Besides the rejuvenative approaches Ayurveda has notable potential to afford significant complementary therapeutic care in a range of diseases of the elderly and the same needs to be known to the practicing physicians of all streams. Arjuna, Guggulu and Puskarmula as cardioprotective in cases of Ischaemic heart disease, Brahmi and similar other Medhya drugs in treatment of senile dementias, Varuna and Shigru in treatment of senile enlargement of Prostate, Triphala in senile visual disorders, Kapikacchu in treatment of Parkinsons disease, Amrita and Amalaki in immunodeficiency, Sirodhara and Sirobasti in tension headaches and different kinds of neurodegenerative conditions are some of the potential areas where Ayurvedic treatment has promise. Similarly the Pindasweda procedure of Keraliya Panchkarma therapy is known for its rehabilitative effect in many neurodegenerative conditions and myopathies.

The Ayurveda-based package of geriatric care may consist of use of Dashvidha pariksha, Sadvritta, Swasthavritta, Satvika diet, Yoga, Meditation, Geriatric panchkarma and Rasayana Therapy.

CONCLUSIONS

Population-Aging and the increasing number of elders in the population is a matter of great significance because of its likely impact on public health and socioeconomic growth of a nation. Ayurveda, being the science of life and longevity, offers a treasure of geriatric care. It deliberates on the science and philosophy of life and longevity with the goal of healthy aging and long life to achieve the Purusartha chatushtaya -Dharma, Artha, Kama, Moksha. It considers aging as Swabhava of life and describes in details the pattern of sequential losses of biological strength with advancing age in relation to the doctrine of Tridosha and advocates the management of aging and diseases of aging on principles of Samanya and Vishesa (Homology versus Heterology). The central focus of strength of Ayurveda in geriatric care swings around the concept of Rasayana therapy which compensates the age-related biological losses in the mind-body system and affords rejuvenative effect to a notable extent. Combining Ayurvedic Rasayana, rehabilitative Panchkarma therapy dietetics, Swasthavrtta, Sadvrtta, Yoga and spirituality it is possible to develop an effective package for geriatric care today for global use. There is a need to generate awareness among the masses about the consequences of Population-Aging and about the strength of Ayurveda in Geriatric health care.

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