

ROLE OF ACHAR RASAYANA AS ANTIAGING AGENT IN OLDER PEOPLES

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ABSTRACT

Introduction: Achara Rasayana is a unique concept in Ayurveda that implies moral, ethical conduct. It contains truth, nonviolence, meditation, personal and public cleanliness, mental and personal hygiene, devotion, compassion, and a yogic lifestyle. Aging is a natural process. Sometimes some factors influence the process of aging. Antiaging indicates the control or regulate those factors. **Aims:** Understanding the role and mechanism of achar rasayan as antiaging agent. **Materials and Methods:** Searching through various Samhita, research journal, websites, ayurvedic literatures. **Results:** Factors like telomeres, glycation, mitochondrial dysfunction, free radical damage etc. along with yet unknown ones may be responsible for aging. Achar rasayan has the role of normalizing the important neuro transmitters like serotonin, nor epinephrine, gamma amino butyric acid metabolism and regulates neuro-psychological processes. Meditation declines free radical levels in blood. **Discussion:** Free radicals attack nucleic acids bases, amino acid side chains in proteins and macromolecules is often called oxidative stress. This condition induces the process of aging. Oxidative stress also disrupting the function of enzymes, receptors, neurotransmitters, and structural proteins. Achara Rasayana can be adopted as a preventive and therapeutic aspect. Several studies have linked meditation which is the part of achar rasayan is responsible for reductions of various measures of oxidative stress. **Conclusion:** Achar rasayana has a great impact to increase our quality of life by normalise the activities of neuro transmitters like serotonin, nor epinephrine, gamma amino butyric acid. Achar rasayana contains various socio behavioural measures including meditation which are highly effective to reductions the level of oxidative stress. For those reasons, we can consider achar rasayana as a antiaging agent for older peoples.

KEYWORDS: Achar rasayan, antiaging agent, meditation, ayurveda.

INTRODUCTION

Ayurveda is a science of life. Its first and foremost aim is to preserve the good health and to prolong the life, and secondly to combat the diseases.^[1] The aims of Ayurveda is to maintenance of homeostasis in the functioning of the body tissues.^[2]

Rasayan word taken from Sanskrit language which means path (ayan) of the essence (rasa). It is the one of the branch of astanga ayurveda.

A person undergoing rasayan therapy attains longevity, intellect, memory, freedom from diseases, excellence of lustre, complexion, voice, potential in sense organs.^[3]

Achara Rasayana is a unique concept in Ayurveda that implies moral, ethical conduct. It contains truth, nonviolence, meditation, personal and public cleanliness, mental and personal hygiene, devotion, compassion, and a yogic lifestyle. Achara Rasayana is a code of good socio behavioural conduct, such as worship to Gods (improves personality), respect to elders, speaking truth, avoiding anger, avoiding excessive indulgence in alcohol, sex and excessive labour, keeping self-peaceful, speaking sweet words, and practicing mantra, kindness to living beings, balanced sleep, regular use of milk, Ghee and other nutritious elements of diet, being humble, kind and well behaved, practicing meditation and studying religious texts.^[4]

AIM AND OBJECTIVES

The main aim of this article is to understanding the achar rasayana and its reason behind the application as an antiaging agent in older patients.

MATERIALS AND METHODS

Samhitas like charak Samhita, sushruta Samhita, astang Hridaya, astang sangraha etc are used as main sources materials for this article. Apart from this, various research portal like Ayush research portal, pubmed and various websites are searched thoroughly for this article.

RESULTS

Aging is a natural process. In fact aging is a multi-factorial process. Sometimes some factors influence the process of aging. No single mechanism can be held responsible for aging. Factors like telomeres, glycation, mitochondrial dysfunction, free radical damage etc. along with yet unknown ones may be responsible for pushing our body towards death. Theories of aging can be grouped under following three classes for the sake of easy understanding like Metabolic damage, Cellular Senescence and death, Toxic and Non-toxic garbage accumulation. These are responsible for the deterioration of cells, tissues and DNA by creating oxidative stress.^[5]

Oxidative stress is an imbalance between cellular production of reactive oxygen species and the counteracting antioxidant mechanisms. Oxidative stress is implicated in several mental disorders including depression, anxiety disorders, schizophrenia and bipolar disorders.^[6]

Achara Rasayana suggests dietary pattern, which enhance the Satwika Guna, like Ksheera and Ghrita, improves the personality (Satwa). Good socio behavioural conduct and meditation (japa) play a important role for normalizing the important neuro transmitters like serotonin, nor epinephrine, gamma amino butyric acid metabolism and regulates a wide

variety of neuro-psychological processes like mood disturbances, sleep induction etc.^[7]

Meditation and good socio behavioural conducts might result in decline in free radical levels in blood and lower seminal oxidative stress by reducing oxidative damage to both mitochondrial and nuclear genome which culminates in lower mutagenic load in DNA.^[8]

DISCUSSION

There are maximum two electrons in an orbital of an atom. Each has an opposite spin making the atom most stable. Molecules or atoms with an unpaired electron in its orbital termed as 'free radicals' are most unstable and reactive. Free radicals can damage nucleic acids, proteins or lipids.

Normal molecular oxygen is a triplet oxygen, It is also a free radical but it is a very unusual free radical as it has two unpaired electrons in its outer orbit. Addition of energy (22.5 kcal/mole) to this oxygen molecule gives singlet oxygen. Although singlet oxygen is not a free-radical, still it is capable of causing damage similar to other free radicals due to excited state of its electrons. Singlet oxygen is known to react destructively with DNA & proteins. It reacts with the amino acid histidine, resulting in enzyme denaturation. Photoaging of skin is believed to be the result of reaction of singlet oxygen from ultraviolet light. When an electron is added to normal triplet oxygen, it pairs with one of the two unpaired electrons in the outer orbit. This leaves the other orbital with an unpaired electron.

This new molecule is called a Superoxide anion. Superoxide anion is a conventional, unitary free radical. Oxygen free radicals in particular superoxide, nitric oxide (NO) and the hydroxyl radical (OH) are the most important. Superoxide, nitric oxide (NO) and the hydroxyl radical (OH) are highly reactive oxygen-containing molecules (including singlet oxygen). They are described as Reactive Oxygen Species (ROS). ROS attack nucleic acids bases, amino acid side chains in proteins and double- bonds in unsaturated fatty acids. ROS attack of macromolecules is often called oxidative stress. Reactive Nitrogen Species (RNS) also cause free radical damage. This condition induce the process of aging.^[9]

Polyunsaturated fatty acids especially serve as major biological targets for oxidative damage induced by ROS. Other candidate molecules that serve as biological targets of free radicals are nucleic acids. Breaks in DNA or modified bases can result in aberrant gene expression and cell death.^[10]

Moreover, free radicals can also oxidize the backbone and side chains of proteins, thereby disrupting the function of enzymes, receptors, neurotransmitters, and structural proteins by oxidative modification.^[11]

The limbic system and the frontal cortex are the important neuro- anatomic areas involved in the production and modulation of anxiety, particularly the sympathetic part of it, and also involve the adrenal glands. Neuro-transmitters such as nor-epinephrine, gamma amino butyric acid and serotonin are also important in the regulation of anxiety. So Achara Rasayana can be adopted as a preventive aspect, as well as a therapeutic mode for it.^[12]

Several studies have linked meditation which is the part of achar rasayan is responsible for reductions of various measures of oxidative stress. There is also evidence of enhanced activity by antioxidants molecules that defend the body against free radicals - during meditation.^[13]

CONCLUSION

Aging is a natural process. Achar rasayana has a great impact to increase our quality of life by normalise the activities of neuro transmitters like serotonin, nor epinephrine, gamma amino butyric acid. Achar rasayana contains various socio behavioural measures including meditation which are highly effective to reductions the level of oxidative stress. For those reasons, we can consider achar rasayana as a antiaging agent for older peoples. Achar rasayan is more related to delaying the aging process and management of old age diseases rather than reversing the aging clock. In this respect it is necessary to take a review of aging process as a whole.

REFERENCES

1. Sharma Dr. R.K., Dash Vaidya Bhagwan, Caraka Samhita (based on Cakrapani Dutta's Ayurveda Dipika), Vol.I, edition 2015, Varanasi, Chaukambha Sanskrit series office, Varanasi, Pg. no.600, (C.Su.30/26).
2. Sharma Dr. R.K., Dash Vaidya Bhagwan, Caraka Samhita (based on Cakrapani Dutta's Ayurveda Dipika), Vol.I, edition 2015, Varanasi, Chaukambha Sanskrit series office, Varanasi, Pg.no. 39, (C.Su.1/53).
3. Sharma Dr. R.K., Dash Vaidya Bhagwan, Caraka Samhita (based on Cakrapani Dutta's Ayurveda Dipika), Vol.III, edition 2015, Varanasi, Chaukambha Sanskrit series office, Varanasi, Pg.no.8, (C.Ci.1/7).
4. Kushwaha Vd harish Chandra Singh, Caraka Samhita (Ayurveda Dipika ayusi hindi commentary), Vol.II, edition 2022, Varanasi, Chaukambha Orientalia, Varanasi, Pg.no.43, (C.Ci.1/30-35).
5. Savrikar S. S. Review of theories of aging in the context of rasaayana therapy, J.R.A.S., Oct-Dec'07; XXVIII(4): 58-74.
6. Samina Salim. Oxidative stress and Psychological Disorders. Current Neuropharmacology, 2014; 12: 140-147.
7. Babu Dr G et al. Role of Achara rasayana In Chittodvega, Ancient science of life, April, May, June 2007; XXVI(4).
8. Dada Rima et al Yoga and Meditation as a Therapeutic Intervention in Oxidative Stress and Oxidative DNA Damage to Paternal Genome. Journal of Yoga & Physical Therapy, 2015; 5: 4.
9. Savrikar S. S., Review of theories of aging in the context of rasaayana therapy, J.R.A.S., Oct-Dec'07; XXVIII(4): 61-62.
10. Choi, B.H. Oxygen, antioxidants and brain dysfunction. *Yonsei Med. J.*, 1993; 34: 1–10. [Google Scholar] [CrossRef]
11. Poon, H.F.; Calabrese, V.; Scapagnini, G.; Butterfield, D.A. Free radicals: Key to brain aging and heme oxygenase as a cellular response to oxidative stress. *J. Gerontol. A Biol. Sci. Med. Sci.*, 2004; 59: M478–M493. [Google Scholar] [CrossRef] [PubMed] [Green Version]
12. Babu Dr G et al., Role of Achara rasayana in Chittodvega, Ancient science of life, April, May, June 2007, XXVI(4).
13. <https://www.psychologytoday.com/intl/blog/minding-the-body/201007/6-other-reasons-meditates>.