

A STUDY ON DRUGS DESCRIBED IN VAYASTHAPAN MAHAKASHAYA OF CHARAK SAMHITA AS AN AGE SUSTAINING ACTION

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ABSTRACT

Vayasthapan Mahakashaya is one of the important *Mahakashaya* of fifty great extractive of Charak samhita. The word *Vayasthapan* is commented by different Scholars of Ayurveda. On analysis of the view of various scholars it can be said that preventing the aging process and maintain the youth is soul meaning of *vayasthapan*. This shows that aging was realized during that age also and drugs to sustain the age were studied. In Charak Samhita such age sustain drugs are enumerated in *Vayasthapan Mahakashaya*. Following are the drugs found in that *mahakashaya-Amrita* (*Tinosporacordifolia* (Willd) Miers ex Hook & Thems), *Abhaya*, (*Terminalia chebula* Retz), *Dhatri*, (*Emblicofficinalis* Gaertn.), *Mukta* (*Pluchea lanceolata* C.B. Clarke.), *Sveta* (*Clitoriaternatea* Linn.), *Jivanti* (*Leptadenia reticulata* W&A), *Atirasa* (*Asparagus racemosus* Wild), *Mandukparni* (*Centella asiatica* (Linn.) Urban.), *Sthira* (*Desmodium gangeticum* (Linn.) DC.) and *Punernava* (*Boerhaaviadiffusa* (Linn.)). The age sustaining drugs of *Vayasthapan Mahakashaya* of Charak Samhita were reviewed on scientific lines through published work revealed, that the drugs have various related activity.

Keywords: *Vayasthapan, Mahakashaya, Amrita, Abhaya, Dhatri, Mukta, Sveta, Jivanti, Atirasa, sthira, Mandukparni, Punernava.*

INDRODUCTION

The aging (*jara*) is a natural phenomenon. It is a *svabhavabalapravrita vyadhi* like Hunger (*kshuta*), Thirst (*pipasa*), Sleep (*nidra*) and Death (*mri* □ *tyu*)^{1,2}. The old age has been referred with synonyms as *Vridha*, *Vardhakya*, *Jara* etc. This phenomenon generally progress slowly and starts at the age of about 60 years and the effects are quite visible at the age of 70 years^{3,4}. The progressive physiological changes in physical and mental health are: decline in tissues (*dhatu*), senses (*indriya*), strength (*bala*),

virility (*Virya*), digestion and metabolism (*agni*), and enthusiasm (*utsaha*); associated with wrinkled skin (*vali*), grey hair (*palitya*) and baldness (*khalitya*); attack of cough (*ka-sa*), dyspnoea (*svasa*), tremors (*vepathu*) and incapable to do any work and decline in mental functions like perception (*grahana*), retention (*dharana*), retrieval abilities (*sma-rana*), speech (*vacana*) and general knowledge (*vijyana*)^{3,4} (S.S.Su. 35:35-36 and C.S.Vi 8:122).

The aging is of two types¹

1. Natural Aging (*kalaja*) which occurs at or after the proper age i.e. 60 years and even after following the daily and seasonal routines described in the bodily daily routine (*svasthavitata*) and use of purification (*shodhana*) in proper time (*parirakshanakrita*).
2. Premature Aging (*akalaja*) which occurs before 60 years of age and due to improper following of daily routine and purification.

TRIDOSH THEORY AND AGING

Age is broadly divided into three stages- childhood, middle age and old age. Childhood is determined up to sixteen years when the *dhatu*s are immature, secondary sexual characters are not manifested, the body is delicate, unenduring, with incomplete strength and predominant in *kaphadhatu*. This again with *dhatu*s in developing stage and unstable mind remains up to thirty years. The middle age is characterized by strength, energy, virility, prowess, acquisition, retention, recollection, speech, understanding, and qualities of all *dhatu*s having

reached the normal limit; with proper physical and mental strength, without degeneration in qualities of *dhatus*, with predominance of *pittadhatu* and is upto sixty years. Thereafter is the old age up to one hundred years. During this period *dhatus*, sense organs, strength, energy, virility, prowess, acquisition, retention, recollection, speech, and understanding gradually degenerate, qualities of *dhatus* go down and there is predominance of *vayu*. During this age, the measure of life-span is one hundred years. There are persons who live longer or shorter than that, in such case, one should determine the three division of age on basis of strength of factors like *prakriti* etc (except *vikriti*) and also characters of different period of life-span⁴.

ROLE OF VATA IN AGING

The increase of *vata* dosha in old age causes depletion in reserves of *Rasadhatu*. This affects the synthesis of other *dhatu*s and impaired nourishment of successive *dhatu*s. Thus, *ojas* is affected and aging results.

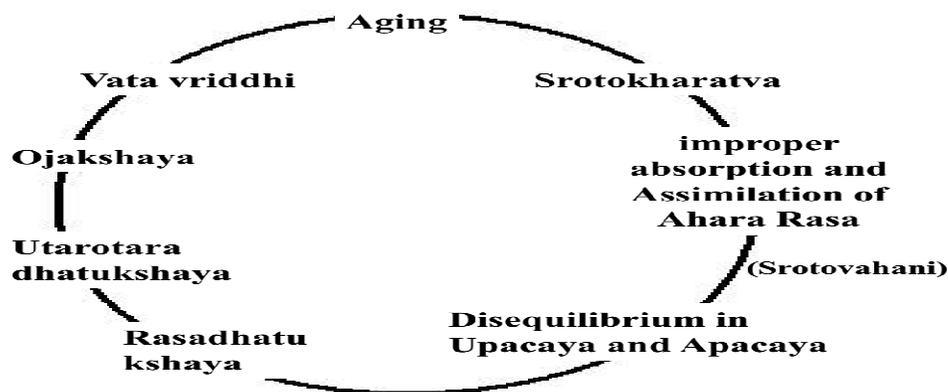


Fig-

ure 1. Role of Vata in aging

MODERN CONCEPT OF AGING

The concept of aging also realized by modern scientist and narrated as- aging is inevit-

able and every living organism has a finite life span. It has been emphasized that process of deterioration of function of various organs seen after attainment of adulthood. In India Kanungo (1960) found that aging arises due to (i) Biological- deterioration of function of various organs (ii) Medicinal- due to various type of diseases specially after 60 years and (iii) Psychosocial. Biologically aging starts after the age of 21-22 years.

Somatic mutation theory is defined by Fallia (1958) in late fifties⁵. According to him the cumulative effect of spontaneous mutation makes the cell less efficient, and this theory was supported by Curtis who observed an age associated increase in chromosomal aberrations.

According to Harmen D (1971)⁶ and Pacific RE and Davis K J A (1991)⁷ free radical such as super oxide, hydroxyl ion etc. are normally formed during biological reaction result in progressive damage to macromolecules, protein and DNA is the primary cause of aging. Genetic theory postulate that there is a marked difference in aging of between species, but there is not much different in the rate within a given species, this suggested that age related changes are programmed in genetic pool and merely unfold during development.

VAYAHSTHAPAN

The drug, which sustains the youth stage and prevents the aging process, is called as *vayahsthapan*. According to *Susruta*, *Rasayana* is *vayahsthapan* (maintaining youth), provide long life, intellect and strength and also eliminates the disease (P.V.Sharma).⁸ According to Chakrapani, the drug that stabilizes the effective youth of the

body is known as *vayahsthapan*⁸. According to Gangadhar, *Vayahsthapan* dravya stabilizes the youth; the supreme of the age by means of their *prabhav*⁸. While interpreting the word *vayahsthapan*, Dhanushana says that it means maintaining life up to hundred years of age while “*Ayuskar*” may go even beyond this limit, quoting other view he adds that *vayahsthapan* prevent old age and this maintains youth for a long⁸, at another place he says that *vayahsthapan* helps leading healthy life irrespective of its span⁸.

The vayahsthapan action can be compared with the modern

- Immunomodulator
- Immune-stimulating
- Immunopotentiating
- Anti-oxidant
- Adaptogens
- Cytoprotective
- Anti-stress
- Anabolic
- Anti-microbial
- Intellect promoting activity

DRUGS OF VAYAHSTHAPAN MAHAKASHAYA-

Amrita (Guduchi)

Guna: *Guru, Snigdha*, **Rasa:** *Tikta*, *Kashaya*, **Vipaka:** *Madhura*, **Virya:** *Ushna*, **Doshika Action:** *Tridosha Shamak*, The qualities of *guru* and *snigdha* are nutritive in nature, being similar in quality to *rasadhātu* it enhances and strengthens *rasadhātu* establishing solid grounding for the six remaining *dhatu*. Being *tikta Rasa* it pacifies *pittadosha*, while *kashaya* as a secondary taste it also balances *kapha*. *Vata* is balanced

by the *Guru* and *snigdha* qualities that counter the dry and *laghu* qualities of *vata*. Its *ushnaviry* not only stimulates but also correct digestive fire, and digest *aamadosh*. The presence of the two *gunas*, *guru* and *snigdha* and the post-digestive action as *madhuravipaka* indicate that the action of the drug is more anabolic than catabolic in nature and from an energetic perspective it counters the catabolic nature of aging. In experimental studies it was shown to have Immunomodulator⁹, Anti-oxidant¹⁰ and Immuno-stimulating¹¹ Activity.

Abhaya (Haritaki)

Guna: *Laghu*, *Ruksha*, **Rasa:** *Kashaya* (predominant), *Amla*, *Tikta*, *Madhura*, *Katu*, **Vipaka:** *Madhura* **Virya:**

Ushna, **Doshika Action:** *Tridosha Shamaka*, Having all the tastes except salty, it pacify to all the *dashas*, even though it is predominantly *kashaya* in taste. Although it has the qualities of *laghu* and *ruksha*, it is recorded as being more *vata* pacifying and used extensively in disorders of *vata*. This may be due to the *ushna virya* and *madhuravipaka*, both of which counteract *vata*. It is known for its rejuvenative action and hence it is recommended for long term intake being combined with various agents during the different seasonal changes to promote and fortify its rejuvenative properties. In experimental study it was shown to have Cytoprotective¹², Anti-mutagenic¹³ and Anti-oxidant activity¹⁴. It also prevents DNA break¹⁵.

Dhatri (Aamalki)

Guna: *Laghu*, *Ruksha*, *Shita* **Rasa:** *Pancha Rasa*; *Amla* (predominant), *Madhura*, *Katu*, *Tikta*, *Kashaya* **Vipaka:** *Madhura* **Virya:** *Shita* **Doshika Action:** *Tridosha Shamaka*, *Aamalaki* pacify *pittadosha*

through *shitaviry*, and due to its *madhuravipaka*. It also balances to *vata* and *kapha*; *vata* is balanced by *Amla* and the *kapha* is balanced by the *rukshaguna* and *kashaya-rasa*. *Aamalaki* is said as *Shresthavayasthapana* drug¹⁶ and an important ingredient of *Chyavanaprasha* – the famous restorative and immune building preparation and is one of the three agents of *Triphala*. In experimental study it was shown to have Immunomodulator¹⁷, Antimicrobial¹⁸,¹⁹ Antioxidant,²⁰ Adaptogen, free radical scavenger,²¹ Cytoprotective activity.²²

Mukta

Gu-

na: *Guru*, **Rasa:** *Tikta*, **Vipaka:** *Katu*, **Virya:** *Ushna*, **Doshika Action:** *Kapha Vata Shamaka*. *Muktaha* has been commented as *Rasnaby Chakrapani* and *Yogindranatha sen*. *Rasna* is said as *Shresthavatahara* drug because of its *ushnaviry* and *guruguna*. It also pacify *kaphadosha* by its *Tiktara*, *katu vipaka* and *ushnaviry* properties. It attenuates cadmium chloride induced oxidative stress and genotoxicity by altering anti-oxidant enzymes and reducing chromatid breaks and micronuclei formation²³.

Sveta

Guna: *Laghu*, *Ruksha*, **Rasa:** *Tikta* **Vipaka:** *Katu*, **Virya:** *Shita* **Doshika Action:** Pacify *Tridosha* **Prabhava:** *Medhya*. *Chakrapani* has commented *Sveta* as *aparajita*. Its anti-aging property is seen because of *vishaghna* and *Tridosha Shamaka* properties. Being *Tridosha Shamaka* it maintains healthy state of the body and due to their *vishaghna* action it removes the poisonous substances from the body which is responsible for the process of aging. Apart from that it also has *medhya* properties

which counteract stress induced aging. In experimental study it is observed that its root extract enhance learning and memory in rats during growth spurt period²⁴, and have nootropic, anxiolytic, antidepressant, anti-convulsant and anti-stress activity²⁵.

Jivanti

Gu-

na: *Laghu, Snigdha, Rasa: Madhura, Vipak: Madhu-*

ra, Virya: Shita, Doshikaaction: Tridosh Shamak Having the main feature *snigdha guna, madhurarasa, shita virya* and *madhuravipaka*, this drug build and strength the body and support *kaphadosha* in maintaining stability of the tissues. Its predominant *snigdha guna* counters the catabolic effect of *vata* and metabolic effect of *pitta*, which when increased can cause increased metabolism leading to catabolism. The *madhuravipaka* support formation of *Rasadhatu* and *ojas*, maintaining health and immunity, providing strength and energy and nourishes the remaining *dhatus*. In experimental study it was shown to have Galactagogue properties²⁶ and Estrogenomimetic action²⁷.

Atirasa (Shatavari)

Guna: *Guru, Snigdha, Rasa: Madhura, Tikta, Vipak: Madhura, Virya: Shita, Doshikaaction: *Vata Pitta* pacifying. *Shatavari* pacifies both *vata* and *pitta*. Its *madhura, Tikta Rasa* and *shita Virya*, pacify *pitta* and *vata* is pacified by *madhurarasa, guru* and *snigdha* qualities and *madhuravipaka*. It has nourishing effect on *rasadhatu* as observed in its galactagogue action as breast milk, which is *anupadhatu* of *Rasa* hence exhibits the quality of *Rasa* in its production. In experimental study it was shown to have Adaptogens²⁸ and Immunomodulator²⁹ activity.*

Mandukaparni

Guna: *Laghu, Rasa: Tikta, Kashaya, Vipak: Madhura, Virya: Shita, Doshikaaction: *Kapha Pitta Shamak, Mandukaparni* pacify *pitta* through *Tikta* and *kashayarasa, madhuravipaka* and by its *shita Virya*. It also pacifies *kaphadosha* by *tikta* and *kashayarasa* and *laghuguna*. It is one of the four *medhya Rasayana* mentioned in *Charak Samhita* and used to increase strength, intellect, digestive fire and fair complexion³⁰. It is highly regarded for its action on the central and peripheral nervous system as well as on the mind itself. *Mandukaparni* promotes circulation to the peripheral tissues as well as the brain. Its action as *avayasthapan* relates directly to the actions on the mind as it promotes memory recall, concentration and reduces stress. Its action on circulation and blood vessel health³¹ can also be associated with anti-aging properties as disease in old age can be caused due to the degeneration of blood vessels as in arteriosclerosis and varicose veins, and in conditions arising from poor peripheral circulation. It was found to increase brain GABA Level³² and showed significant improvement in cooperation, memory, concentration, attention, vocabulary and social adjustment in mentally challenged children. In experimental study it was shown to have Anti-anxiety³³, Anti-microbial³⁴, Intellect promoting³⁵ and Anti-oxidant³⁶ activity.*

Sthira (Shalparni)

Guna: *Guru, Snigdha, Rasa: Madhura, Tikta, Vipak: Madhura, Virya: Ushna, Dosikaaction: Tridosh Shamak. The properties like *guru* and *snigdha*, the *madhurarasa*, the *ushna virya* and *madhuravipaka* all indicate that the drug is pacified to *Vatadosha* and *Pitta*, is*

pacified by the *madhura*, *tikta* Rasa and *ka-
pha*, by the *tiktarasa* and *ushna virya*. In experi-
mental study plant shows cardio protective
³⁷ and Anti-oxidants activities.

Punarnava

Guna: Laghu, Ruksha, **Rasa:** Madhura, Tikta, Ka-
shaya, **Vipak:** Madhura, **Virya:** Ushna, **Doshik
aaction:** Tridosha Shamak. Punarnava, vata
pacifying action is due to *madhurarasa* and
ushnavirya and by the *madhuravipaka*. Its
laghu, guna with *ushna virya* pacifies the
guru, snigdha, guna of *aama dosha*. It is
well known diuretic and is used in the treat-
ment of oedema. It has been shown to have
Anti-stress³⁹ and Anti-oxidant⁴⁰ activity.

DISCUSSION

On analysis of the view of various scholars' it can be said that preventing the aging process and maintain the youth is soul meaning of *vayahsthan*. In Ayurvedic classic aging is said as natural phenomenon. According to *Susruta* aging is of two types- Natural and premature aging, natural aging (*kalaj*) which occurs at or after the proper age i.e. 60 years, premature Aging (*akalaj*) which occurs before 60 years of age and due to improper following of daily routine and purification. The increase of *vata dosha* in old age causes depletion in reserves of *rasadhatu*, this affects the synthesis of other *dhatu* and impaired nourishment of successive *dhatu*, thus *sojas* is affected and aging results. The age sustaining drugs of Charaka Samhita were reviewed on scientific lines through published work revealed that some of the drug i.e. *Tinosporacordifolia* (Willd) Miers ex Hook & Thoms (*Amri-
ta*)¹⁰, *Terminalia chebula* Retz (*Ab-*

haya)¹⁴, *Emblicoefficialis* Gaertn (*Dhatri*)⁴¹, *Asparagus racemosus* Willd (*Attrra-
sa*)⁴², *Centellaasiatica* (Linn) Urban (*Mandukaparni*)³⁶, *Desmodium gange-
ticum* (Linn.) DC. (*Sthira*)³⁸, *Boerhaavia dif-
fusa* Linn (*Punarnava*)⁴⁰ have anti-oxidant activity, *Emblicoefficialis* Gaertn (*Dhatri*)²⁰ and *Asparagus racemosus* Willd (*Atirasa*)²¹ have adaptogens activity and *Aparajit* have anti- anxiety as well as intellect promoting activity^{33,25,35,24}. *Jivanti* have estrogenomimetic activity²⁷. It is also reported that some of the drug like *Abhaya* prevent DNA breaking¹⁵ and Rasna prevent Chromatid breaks induced by cadmium chloride²³.

CONCLUSION

Vayahsthan mahakashaya is one of the important mahakashaya of Charaka samhita. The ten drugs are described in this mahakashaya, the sole purpose of these drugs is preventing the aging process and maintaining the youthful age and these drugs have been reported for various related activities.

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