



**RASADRAVYA AS RASAYANA IN GERIATRIC CARE AND CURE- WITH SPECIAL  
REFERENCE TO MAKARADHWAJA RASA**

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**ABSTRACT**

Rasashastra is one of the essential branches in Ayurvedic management of diseases as well as maintenance of health. There is a mention of *chaturvidha rasayana* in the classification of *rasaushadhis*. Out of these, *kupipakwa rasayana* is a popular and commonly used formulation. It is known for its quick action and minimum therapeutic dosage. *Makaradhwaja rasa* is one such *Kupipakwa rasayana*. It is renowned rejuvenator, immunomodulator and aphrodisiac and also used in several disorders. Hence, considered as a *Rasayana* drug. In today's world, owing to faulty eating habits and modified lifestyle symptoms of ageing like greying of hair, memory loss, low immunity etc are observed in early stages of life itself. In Ayurveda, Geriatrics is described under *vridhdhavastha* or *jeenavastha*. The word ageing is described by the word *Jara*. Types of *jara*, its symptoms and management are also described. Ayurveda has a lot to contribute towards *Jarachikitsa*. *Rasayana* drugs can be effectively used to delay the early ageing signs and prove to be very effective in management of geriatric problems. In the present paper specific mode of action of *Makaradhwaja rasa* as a *rasayana dravya* in Geriatric care and cure has been discussed.

**KEYWORDS:** *Kupipakwa rasayana*, *makaradhwaja rasa*, geriatric, antiageing.

**INTRODUCTION**

Geriatrics is a branch of medicine concerned with diagnosis, treatment and prevention of disease in older people and the problems specific to ageing. Ageing is both a complex and challenging scientific problem and a fact of universal concern. Human ageing process involves multi dimensional changes on physical, psychological, cultural and social levels. These changes do not depend only on age, but are also seen in early stages of life as well in the present era and are called as premature ageing.

In Ayurveda, ageing is described by the word *Jara*. Since The main aim of Ayurveda is not only to cure the disease but also to main health and longetivity, it presents a good concept of ageing, process of delaying ageing and its management. *Jara* is an inseperable part of life. Ayurveda has contributed considerably in the field of *jarachikitsa*. *Jarachikitsa* in Ayurveda is a method to slow down ageing in human beings during the later stages of life when degeneration of body tissues and senses occurs at an enhanced rate. Ayurveda advocates healthy ageing through *rasayana chikitsa*.

*Makardhwaja* is a popular *rasaushadhi* (herbomineral compound formulation) prepared with *Shodhita Swarna*(gold), *Parada*(mercury), and *Gandhaka*(sulphur) by *Kupipakwa* method of preparation using *Valukayantra* in the ratio of 1:8:16, 1:8:24 or 1:8:48. It is a popular drug that enhances vigor and vitality. In the classical Rasashashtra texts, *Makaradhwaja* is said to increase longevity of life and delay ageing process. It is a well known aphrodisiac, immunomodulator, rejuvenator drug used in treatment of several ailments as well.

**JARA ETYMOLOGY<sup>[1]</sup>**

The term *JARA* has been derived from the Sanskrit root word 'jru' which means decline stage or old age and can be explained as the muscles and other tissues being loosened under the influence of ageing. The word "Jara" also has a synonym "Visraha" which is derived from the root word 'sramsu adhipatane' which means degradation in physical, psychological and physiological well being.

**AGEING AS PER AYURVEDA**

Ageing in Ayurveda is said to be the outcome of *kala* or *parinama* and is described under

*Svabhavalapravrittavyadhi*<sup>[2]</sup>- those diseases that are produced by the influence of nature.

Age is classified into 3 – *balyavastha*, *madhyamavastha* and *jeernavastha*. Charakacharya<sup>[3]</sup> considers jeernavastha to be after 60 yrs and sushruthacharya after 70 yrs.<sup>[4]</sup>

Acharya sushrutha has explained the types of *Jara* for the first time. 1) *kalaja jara* and 2) *Akalaja jara*.<sup>[5]</sup> Out of these, *kalajajara* is one that occurs at proper time and is inevitable. *Akalaja jara* appears prematurely due to improper care and prevention.

#### FACTORS RESPONSIBLE FOR JARA

1. *Svabhavoparamavada* (theory of natural destruction)
2. *Kala*
3. *Shariravriddhikara bhava- abhava*
4. *Agni*
5. *Tridosha*
6. *Shrotas of sharira*
7. *Sharira dhatus*

#### ETIOLOGY OF AKALAJA JARA

1. *Aharatmaka hetu* (diet)
2. *Vikaratmaka hetu* (regimen)
3. *Manasika hetu* (psychological)

#### Symptoms of ageing<sup>[6]</sup>

##### Physical symptoms

- a. *Vali* (wrinkles)
- b. *Palitya* (premature greying of hair)
- c. *khalitya* (hair loss)
- d. *Sukra apravartanam*
- e. *Ojaksaya* (weakness)
- f. *Mamsa shaitilya* (muscle weakness)
- g. *Analpa meda*
- h. *Asamarta chesta* (inability to work)

##### 2. Psychological symptoms

- a. *Medhahani* (decreased intellect)
- b. *Avasannata* and *nairasya* (depression)
- c. *Smritihani* (loss of memory)
- d. *Utsahahani* (decreased enthusiasm)
- e. *Buddhihani* (deterioration in wisdom)

#### RASAYANA CHIKITSA

The word Rasayana is made up of two words. 'Rasa' means 'nutrition' and 'Ayana' means circulation throughout the body for its efficient assimilation into the body. In Ayurveda, there is incorporation of *Rasayana Tantra* as one of the eight disciplines of *Astanga Ayurveda*, which is exclusively devoted to geriatric health care.

Sushruthacharya has defined Rasayana as a branch of *Astanga Ayurveda*.

Rasayana therapy does not only mean rejuvenation or method for delayed ageing. Rasayana is a specialized procedure in the form of rejuvenative measures, dietary regimen and health promoting methods. Rasayana drugs

primarily acts on *Rasa dhatu*, *Agni* (improved digestion and metabolism) and *Srotas* (cleaning up the micro channels leading to better perfusion of tissue)

#### MAKARADHWAJA RASA

In ancient years the *rishis* practiced several alchemical procedures in the quest of achieving *moksha*. The Indian Alchemy was for two major purposes- *dehavada* and *lohavada*. *Dehavada* mainly was practiced for achieving longevity and ultimately to achieve *Moksha*. Many formulations were prepared to increase longevity and for rejuvenation. *Makaradhwaja* was one of them.

*Makaradhwaja* is a very popular drug in the Indian system of Medicine. It is used as a main aphrodisiac agent and rejuvenator and for treating a number of disorders.

The word *Makaradhwaja* is composed of two words. i.e *Makara* which means crocodile and *dhwaja* which means flag. When the drug is used internally for therapeutic purposes, *Makara* stands for drug having aphrodisiac property and *dhwaja* stands for the resultant as a straight rod or flag pole. *Makara* and *dhwaja* also is a synonym of *Kamadeva*, the God of beauty.

#### METHOD OF PREPARATION<sup>[7]</sup>

##### Ingredients

- 1) *Shuddha swarnapatra* - 1 part
- 2) *Shuddha parada* – 8 parts
- 3) *Shuddha gandhaka* – 16 parts

##### Method of preparation

*Shuddha Swarna* and *Shuddha parada* in equal quantities is taken in a *khalvayantra* and triturated well. It attains a butter like amalgam form with no shiny particles of gold. Later remaining *parada* and mentioned quantity of *Gandhaka* is added in the same *khalwa yantra* and triturated continuously for 2 to 3 days until appropriate *kajjali* is formed. The *kajjali* is again subjected for 1 day *bhavana* with *ghritakumari swarasa*. The product obtained is carefully collected and filled into *Mritaveshitita kachakupi*, its mouth is closed with cork, placed firmly in *valuka yantra* to subject it for *mrdu*, *madhyama* and *tiksnagni* respectively for a day each.

The cork has to be removed soon after beginning of heating process. Once, *madhyamagni* is applied for a day, fumes start appearing from the mouth of the bottle. In case the neck of the bottle gets blocked by the *Gandhaka* fumes, it has to be cleared with hot iron *shalaka* (rod) so that *Gandhaka* burns and moves out. Flames and fumes gradually subside indicating the completion of the medicine formation inside the bottle. After getting *suryodaya lakshana*, corking is done. *Valuka* around neck is removed and is allowed to cool on its own. Next day, the bottle is broken carefully and *Makaradhwaja* rasa gathered at the neck of the bottle is collected.

**Dose** : ½ - 1 ratti

**Rasa:** Apyakta  
**Virya:** Ushna  
**Doshagnata:** Tridoshashamaka

**Varna:** Rakta  
**Anupana:** Madhu and Tambulapatraswarasa

### Therapeutic efficacy of Swarna Bhasma as described in Ayurvedic classics

REFERENCES	GUNAS
Rasa Ratna samucchaya <sup>[9]</sup>	<i>Kshayahara, agnimandya hara, ojo-dhatuvivardhana, balakara</i>
Rasa Prakasha sudhakara <sup>[10]</sup>	<i>Saundaryakantivardhana, tridoshajarogahara</i>
Ayurveda Prakasha <sup>[11]</sup>	<i>Vrishya, Rasayana, Balya, Brumhana, Ayushya</i>
Rasa tarangini <sup>[12]</sup>	<i>Vrishya, punsanopayogi</i>
Rasamrita <sup>[13]</sup>	<i>Rasayana, Vishaghna, Medhya</i>

Some of the other properties are as follows:<sup>[14]</sup>

- 1) Free radical scavenging activity
- 2) Anti-anxiety and anti-depressant activity
- 3) Effect on modulation

#### PROPERTIES OF SHUDDHA PARADA<sup>[15]</sup>

*Parada* has a property of 'yogavahi' which means it incorporates and enhances the properties of drugs with which it is used. *Parada* is best *Rasayana* for *Dehavada* (rejuvenation) as well as *Dhatuvada* (converting lower metals to noble metals). *Mrita* parade is said to be *kshaya shoshahara* (relieves debility), *balya* (strengthens body), *veerya vriddhikara* (increases sexual desire), *kantivardhaka* (increases lustre), increases *striramashakti* and *vihara Shakti* (sexual vigour).

#### PROPERTIES OF SHUDDHA GANDHAKA<sup>[16]</sup>

*Gandhaka* has *katu rasa* (pungent), *usna veerya* and *madhura vipaka*. It is *rasayana, yogavahi, sutendriya veeryaprada* (when added with *parada*, it enhances its therapeutic power), aphrodisiac, alleviates *kapha* and *vata*. Here, excess *Gandhaka* is digested inside *Parada* to form a therapeutically extremely effective compound and is termed as *gandhaka jarana* which plays an important role in detoxification of mercury.

Without *Gandhaka Jarana*, *Parada* does not become therapeutically potent enough so it must be digested with *Gandhaka* in order to make it highly effective and to achieve pharmacological and therapeutic properties.

#### PROPERTIES OF BHAVANADRAVYA

*Kumari swarasa*<sup>[17]</sup> - *kumari* literally means "young girl or virgin" as it imparts the energy of youth.

Taste: *tikta, kashaya, katu*

Guna: *snigdha*

Potency: *sheeta*

Karma: *balya, vrishya, rasayana*

#### Properties of Anupana

##### 1) *Nagavalli swarasa*<sup>[18]</sup>

karma: *deepana, pachana, sugandhi, vrrushya*

##### 2) *Madhu*<sup>[19]</sup>

karma: *vrushya, yogavahi*

#### DISCUSSION

*Vata, pitta* and *kapha* are the 3 important entities (*Tridoshas*) responsible for the maintenance of health as well as production of diseases. Ageing is also related to these *tridoshas*. The dominance of these *doshas* vary as per age, day, night etc. As per age, *Kapha dosha* is dominant in childhood, *Pitta dosha* in middle age and *Vata dosha* in old age. *Vata dosha* has *gunas* such as *ruksha, laghu, sheeta, vishada*. Hence, it decreases the lustre of the skin, *bala* and decays the body producing symptoms of ageing such as dry, wrinkled skin, greying of hair, decreased strength, muscle weakness etc. owing to its natural properties.

Apart from the *tridoshas*, *agni* is another factor in ageing process. *Agni* is responsible for conversion of dietary substances into tissue elements. As *Vata* gets vitiated it results in *Vishamagni* and affects digestion. This leads to undernourishment of tissues.

*Oja* is also responsible for resistance against diseases or *vyadhikshmatva*. So, *dhatukshaya* and *ojakshaya* together are also responsible for producing various age related symptoms and ailments in old age. The vitiated *vata dosha* and *vishamagni* together lead to *Shrotodushti*. *Shrotas* in the body are responsible for transfer of body fluids. This in turn leads to early ageing process.

*Rasayana* therapy works on *Agni* which in turn leads to proper formation of *Rasadi dhatus*. Hence it is necessary to nourish the *ojas* which is considered as prime essence of these *rasadhatus*. This causes proper working of immune system in terms of *vyadhi kshamatva*. Hence, *Rasayana* plays a critical role in delaying ageing and also in combating geriatric problems and helps in maintaining health in old age. In other words, it helps in slow and graceful ageing with lesser ailments.

Herbal and mineral combination of *rasaushadis* makes the formulation potent enough to treat. It acts on the property of synergism wherein one drug potentiates the other. *Bhavana samskara* with *dravyas* like *kumari* leads to possible formation of organo metallic compound and converts heterogenous form to homogenous form. This process also helps in particle size reduction thereby increasing their bioavailability.

*Nagavalli swarasa* and *Madhu* as *Anupana* play a potent role in potentiating drug action through their *Rasa*, *Virya*, *vipaka* and *Prabhava* as well as improving *roga* and *rogi bala*. These also help in palatability, masks any distaste, helps in easy administration prevents irritation and controls adverse drug effect.

*Makaradhwaja Rasa* delays old age. It also improves *jatharaagni* and *bala*, alleviates *vali-palita*, improves intellect, *ayu*, *kanti* and *kama Shakti* (potency) and is able to alleviate or decrease signs of ageing. Hence it can be effectively used in geriatric care and cure geriatric problems.<sup>[20]</sup>

## CONCLUSION

The main aim of Ayurveda is prevention of diseases and maintenance of health. For this, our *Acharyas* have given *Rasayana* therapy as the best remedy. *Rasaushadis* play a major role in *Rasayana* therapy. It is found that *Makaradhwaja rasa* when administered with suitable adjuvant like *nagavalli swarasa* and *madhu* exhibit *balya*, *tridoshaghna* and *rasayana* effect. Thus, it can be considered as an excellent remedy in geriatric care and cure.

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