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RASONA RASAYANA

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Abstract

Rasayanas are dravyas that destroy the diseases and old age they may be in the form of food, lifestyle or drugs. The Rasayanas provide longevity, excellence of memory, intelligence, health, youthfulness, luster complexion, resonant voice, excellence of sense organs, vocabulary and nourishment of Rasadi dhatus. Rasayana is a contribution of Ayurveda to the field of preventive medicine. Rasayana help in health promotion, disease prevention as well as in treatment of diseases. Rasona rasayana is among one of them. The Vatahara, Kaphamedohara properties especially benefit in Hyperlipidemia. Rasona rectifies Dhatvagni, enhances nourishment through Srotoshodhana and brings about Rasayana effects on body. This article is a sincere attempt to compile rasona rasayana review.

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INTRODUCTION

Diet, lifestyle and drugs which delay aging and prevent disease; longevity and improvement in mental faculties are claimed as *Rasayana*. *Rasayana* boost *Ojas* and immune system. Thus *Rasayana* is classified in *Ahara* (diet), *Aushdha* (medicine) and *Achara* (regimens). The dietary items having *Rasayana* properties are highly beneficial and vital in prevention and treatment. *Rasayana* ultimately leads to achievement of best nutritional value of *Rasa* and all other *Dhatus*. (*Labhopayo Hi Shastanam Rasadinam Rasayanam*). They produce *Rasayan* effect in term of *Vayasthapna*, *Ayushkara*, *Urjaskara* and *Medhakara*. They are non pharmacological devoid of side effects, and hence should be incorporated in the management of diseases like dyslipidemia and cardiovascular disorders. *Acharya Dalhana* in his commentary on *Su. Chi. 27/1* advocates 3 types of *Rasayanas* namely *Kamya Rasayanas* for health promotion and excellence of memory, strength etc., *Naimittika Rasayana* for the cure of specific diseases and *Ajasrika Rasayanas* like milk, ghee etc. *Ahara Rasayana* for excellence of health and longevity. *Rasona* (*Allium sativum* Linn.) is one such *Rasayana* which is a commonly used dietary item having *Rasayana* property and a *Pathya* in *Medovikara*. *Ati-balya* (provides strength in excess), *Vrishya* (aphrodisiac), *Medhya* (promotes intellect), *Svarya* (enhances voice), *Varnya* (enhances complexion), *Chakshusya* (beneficial for eyes), *Asthi Sandhanakara* (unites fractures), *Raktakara* (increases blood). In *Charaka Chikitsa 10* (treatment of *Atatvabhinivesha* in *Apasmar Chikitsa*) *Rasona* (*Allium sativum*) and *Til taila* (Oil of *Sesamum indicum*) is described as *Medhya Rasayana*.

These *Rasayanashould* be chosen on the basis of their properties and mode of action:

Brihmana: Certain *rasayana* having *Madhura*, *Guru*, *Snigdha* and *Sheeta* properties act as *Rasayana* at the level of *Rasa* by promoting the nutritional value of the *Rasa* which in turn help in obtaining best qualities of other *Dhatus*. They are called *Brihmana Rasayana* e.g. *Satavari*, *Madhuyasti*, *Bala*, *Dugdha*, *Ghrita* etc.

Agnivardhana: The *rasayana* possessing the *Ushna*, *Laghu*, *Ruksha* and *Katu Tikta* *Rasa* act at level of *Agni*. Vitalizing the organic metabolism leading to an improved structural and functional pattern of *Dhatu* e.g. are *Pippali*, *Guggulu*, *Rasona*, *Bhallataka* etc.

Srotoshodhana: The rasayana with Katu, Tikta Kashaya rasa, Vishada, Ruksha, Laghu guna, Ushnaveerya and Katu vipaka may cause Srotoshodhana and enhance the Dhatuposhana e.g., Rasana, Guggulu etc.

One of most vividly describe Rasayana which should be included in daily life for prevention and management of hyperlipidemia is Rasana Rasayana due to its Agnivardhana and Srotosodhan property is selected in this study for evaluating its hypolipidemic actions. Its description is done in further.

Rasana (*Allium sativum*) has played an important dietary as well as medicinal role in human history. The role of rasana (*Allium sativum*) as a potential herb has been acknowledged for over 5000 years.

HISTORICAL ASPECT OF THE RASANA

According to Astanga Hridaya

Rahu stole the nectar obtained by churning the sea and swallowed it, he was immediately beheaded by god *Vishnu*, thus the drops of nectar fell over earth and became *Lashuna*, since it is born from the body of *Rakshasa*, the *Brahmanas* do not eat it. Since it is born out of nectar, it is a best *Rasayana*.ⁱ

According to Gadanigraha Kanda

A few drops of *Amrutha* fallen on the earth from the throat of the *Rahu*, at that time the *Lashuna* existed or developed on the earth.

According to Kashaya Samhita

It is come to known that till 100 years the *Indrani* didn't give birth to any baby. At that time lord *Indra* gave her *Amrutha* to drink. In the presence of her husband *Devi Shachi* felt shy and some of *Amrutha* substance drops came out in the form of belch and few drops of it fall on the ground. Then lord *Indra* told to *Indrani* that now onwards she would have many children.ⁱⁱ

Explanation of the *Lashuna Kalpa* is available in the *Gadanigraha*, *Navaneetaka* and *Kashyapa Samhita*. *Lashuna* has been mentioned in various *Nighantu* literatures.

GANA AND VARGA'S ACCORDING TO DIFFERENT AUTHOR'S

❖	<i>Charak Samhita</i>	<i>Harita varga</i>
❖	<i>Sushruta Samhita</i>	<i>Shiro virechaka dravya, Katu varga</i>
❖	<i>Astanga Hridaya</i>	<i>Mula varga</i>
❖	<i>Bhavaprakash Nighantu</i>	<i>Haritakyadi varga</i>
❖	<i>Kaiyadev Nighantu</i>	<i>Aushadi varga</i>
❖	<i>Raj Nighantu</i>	<i>Mulakadhi varga</i>
❖	<i>Dhanwantri Nighantu</i>	<i>Karaveeradhi varga</i>
❖	<i>Madhanaphala Nighantu</i>	<i>Shaka varga</i>

❖	<i>Abhidhan Ratnamala</i>	<i>Katu dravya skanda</i>
❖	<i>Amar Kosha</i>	<i>Vanoushadhi varga</i>
❖	<i>Madhav Dravya Guna</i>	<i>Vividoushadhi varga</i>
❖	<i>Nighantu Adarsha</i>	<i>Lasunadhi varga</i>
❖	<i>Mahoushad Nighantu</i>	<i>Mahoushadhi varga</i>
❖	<i>Saligrama Nighantu</i>	<i>Shaka varga</i>

PARYAYA OF RASONA

Lasuna : It destroys / removes the entire *kapha rogas* etc.

Lashuna : It is devoid of one rasa i.e *amalarasa*

Rasona : Except *amla* rasa it possess all tastes.

Uragandha : It has pungent smell.

Mahoushada : It is a medicine with great potentiality.

Arista : It will not lead to originate any ill effects/ side effects.

Gurjana : It is praised by many for its medicinal properties.

Mahakanda : It is an important tuber with medicinal properties.

Yavanesta : Egyptians like it very much.

Pancharasa : It has five tastes except *amla* rasa.

Some other Paryayaare *Dirghapatraka*, *Pruthupatra*, *Bhutagna*, *Sheetamardaka*, *Dirgadala*, *Suklakanda*, *Katu kand*, *Mahausna*, *Vatari*, *Mlecchakanda*, *Lavanesta*, *Rasonaka*, *Juguspita*, *Mlecchangandha*, *Rahuchhista*, *Rahutrista*.

BHEDA ACCORDING TO DIFFERENT AUTHORS

According to *Raj Nighantu*ⁱⁱⁱ

1. *Swetha rasona*
2. *Grinjana*
3. *Rakta rasona*.

According to *Dhanwantri Nighantu*

1. *Lashuna*
2. *Mahakanda (Grinjan)*

According to *Kashyapa Samhita*

1. *Girija* (one which grows in the mountain)
2. *Kshetraj* (one which grows in the fields)

First one is like *Amrutha*.

The other one is used in the absence of first one.

Lahsuna contains all the rasa except *Amla*. It is *Guru* and *Snigdha* in *Guna*, *Ushnain* *Virya* and *Katu* in *Vipaka*

RASA IN DIFFERENT PARTS OF THE PLANT

According to *Bhavaprakash Nighantu*

- *Mula bhaga* *Katu rasa*
- *Patra* *Tikta rasa*
- *Nala* *Kashaya rasa*
- *Agrabhaga Nala* *Lavanarasa*.
- *Bheeja* *Madhura*

According to *Kashyapa Samhita*

- *Bheeja* *Katu rasa*
- *Pushpha nala* *Lavana and Tikta rasa*
- *Patra* *Kashaya*

KARMA'S (ACTIONS) (PROPERTIES) ACCORDING TO DIFFERENT AUTHORS

KARMA'S (Actions)	BP.N ^{iv}	K.N. ^v	R.N. ^{vi}	D.N. ^{vii}	MD. Guna ^{viii}	Cha. ^{ix}	Su. ^x	A.H. ^{xi}	API	Ka. Sam ^{xii}
<i>Brimhana</i>	+	+								+
<i>Vrisya</i>	+					+	+	+		+
<i>Pachaka</i>	+	+							+	
<i>Sandhana Kara</i>	+		+	+		+	+		+	
<i>Kanthya</i>	+								+	
<i>Medhya</i>	+	+		+			+		+	+
<i>Netrehitakara</i>	+	+		+		+		+	+	
<i>Rasayana</i>	+		+		+				+	
<i>Vajikaraka</i>		+		+					+	
<i>Hrudya</i>		+			+			+	+	
<i>Balakara</i>		+		+	+		+	+	+	+
<i>Varnya</i>		+		+					+	+
<i>Keshya</i>	+	+			+		+	+		
<i>Swarhitakara</i>		+		+						

<i>Angivardaka</i>		+								
<i>Deepan</i>									+	+
<i>Krimigna</i>									+	+

PRAYOGA (THERAPEUTIC USES) ACCORDING TO DIFFERENT AUTHORS

	Bh.P	K.N	R.N.	M.N⁴²	MD. Guna	Cha	Su	AH	K	API
<i>Hridroga</i>	+						+			+
<i>Jeerna jwara</i>	+						+		+	+
<i>Malavibanda</i>	+						+			
<i>Gulma</i>	+	+		+	+	+	+	+	+	+
<i>Kasa</i>	+	+		+	+		+	+	+	
<i>Shota</i>	+		+							
<i>Kusta</i>	+			+	+	+	+	+	+	+
<i>Agnimandya</i>	+								+	
<i>Krimi</i>	+		+	+	+	+	+	+	+	+
<i>Swasa</i>	+	+		+					+	
<i>Jwara</i>		+		+						
<i>Prameha</i>		+		+	+	+		+		
<i>Arsha</i>					+	+		+		+
<i>Netraroga</i>									+	
<i>Shula</i>		+								+
<i>Vataroga</i>				+						+
<i>Astibhagna</i>									+	
<i>Apasmara</i>						+				+
<i>Unmada</i>						+				+

Contraindication of *Rasona*

Rasona should not be used in the disease of *Kapha* and *Pitta*, by one having progressive emaciation of the body, aged, having no digestive fire, puerperal woman, pregnant woman, child, fever, diarrhea, kamala, piles, stiffness of thigh, constipation, disease of throat and mouth, having received emesis, purgation, *Nasya*, *Basti*, vomiting, absence of patience, by poor and bad nature.^{xiii}

Collection and Extraction of *Lashuna*(garlic) Juice

According to *Acharya Vagbhata* bulbs of *Lashuna* obtained at the end of spring should be removed of its husk and soaked in *Madira* (a kind of wine) in the night. Next morning it should be macerated with the same liquid, filtered through cloth. The filtered juice mixed with three times its quantity of either wine, buttermilk, water of curds, or gruel, or oil, ghee, muscle, fat, marrow, milk, meat juice or any decoction of drugs appropriate to the diseases or the filtered juice alone should be consumed.^{xiv}

Time of Administration

Rasona is advice to be used during *Sita*(winter), *Hemanta*(early winter) and *Sisira*(winter)season, it can even be used during autumn for *Kapha* and use in rainy season for predominance of *Vata* or it may always use with following indication of summer season.

Prayoga Kala Maryada

The best period of use is 1 month, but can be used upto 6 month according to one's desire. Minimum use period is 15 less than that is useless.

Prayoga Matra

The best dose of *Lahsun* mixed with wine or oil etc. is one *Kudav*, dose of its juice is ½ *Kudav* and dose of its paste is one *Pala*.

Prayoga Matra according to Kashyapa

Lashuna 4 *pala* is small dose, 6 *pala* is medium and 8 *pala* or 10 *pala* is best one.

Numerical Dose of *Lasuna* According to *Kashyapa*

Numerical dose is 100, 60 and 50 (best, medium and low) of dry, strong seeds along with peel.

Time of Administration

Before meal (*Pragbhakta*) or with meal (*Sabhakta*).

Prayojyanga (Useful parts)

Dravyaguna Vijnana *Kanda* and *Taila*

Nighantu Adarsh *Kanda* and *Patra*

Vanoushadi Nidarshika *Kanda* and *Patra*

MATRA (Posology)

According to P.V.Sharma

- *Kanda kalka* 3-6 gm
- *Taila* 1-2 drops

According to *Vanoushadhi Nidarshika*

- *Kanda kalka* 1.5 gm to 3 gm
- 1 ½ *masha* to 3 *masha*.

According to *Nighantu Adarsha*

- *Swarasa* 10 to 30 drops
- *Kalka* 2 to 3 *masha*.

PATHYAPATHYA

Pathya

The foods prepared with *Madya*, *Mamsa* and *Amla Rasa* are *Pathya*.

Apathya

Vyayama, *Atapa*, *Kroda*, excess drinking of water, milk and *Guda*.

Major Chemical Constituents

The most important chemical constituents reported from garlic are sulfur compound. The primary sulphur-containing constituents in whole garlic are the S-alk(en)yl-L-cysteine sulfoxides (CSs, 1.8%) and γ -glutamyl-S-alk(en)yl-L-cysteine peptides (0.9%). On prolonged storage or during germination, the enzyme γ -glutamyl transpeptidase acts on γ -glutamylcysteine peptides to form thiosulfonates such as S-allyl-cysteine which contributes heavily to the health benefits of some garlic preparations.

PHARMACOLOGICAL ACTIVITIES

Antihyperlipidemic effect

Garlic exerts their hypocholesterolemic effect by three different mechanisms; by inhibiting hepatic cholesterol biosynthesis (Gebhardt et al., 1994; Gupta & Porter, 2001; Singh & Porter, 2006), by enhancing cholesterol turnover to bile acids and its excretion through gastrointestinal tract (Srinivasan & Sambaiah, 1991), or, in the case of plant saponins, by inhibiting cholesterol absorption from intestinal lumen without changing HDL cholesterol levels in hypercholesterolemic animal models (Matsuura, 2001; Slowing et al., 2001).^{xv}

Antioxidant

Garlic enhances the serum levels of two antioxidant enzymes viz., catalase and glutathione peroxidase^{xvi}. It also decreases plasma malondialdehyde concentration and thus plays a role in the prevention of diseases of cardiovascular as well as providing protection against environmental sources of free radicals.^{xvii}

Antiatherosclerotic Effect

Atherosclerosis results by accumulation of intra and extra cellular lipids. Garlic powder extract inhibits biosynthesis of cholesteryl esters and triglycerides in atherosclerotic cells and it also inhibits the activity of acyl-CoA cholesterol acyltransferase, the enzyme involved in the formation of cholesteryl esters, the main component of the excessive fat accumulated by cells. On the other hand, garlic extract stimulates cholesteryl ester hydrolase that degrades cholesteryl esters in atherosclerotic cells.^{xviii}

Platelet Inhibitory and Fibrinolytic Effect

-Some form of garlic which increases cyclic adenosine monophosphate levels and thus decreases thromboxane formation. There may be a direct inhibition of thromboxane. β -thromboglobulin release is decreased, which suggests that the effect may be more on the platelet activation phase.^{xix}

Antihypertensive Effect

The hypotensive action of garlic may be due to a direct relaxant effect on smooth muscles. Aqueous garlic extract and its individual components allicin and ajoene also open K^+ channels, causing a membrane hyperpolarization and thus lead to a decrease of the Ca^{2+} inward current into the vascular smooth muscle cell and finally induce vasodilation resulting from intracellular Ca^{2+} decrease.^{xx}

Anticancer Effect

Garlic compounds can alter the carcinogen metabolism either increasing the detoxifying enzymatic systems activity that increase the carcinogen polarity, facilitating its excretion from the body or inhibiting the procarcinogens activation by cytochrome^{xxi}

Antimicrobial Effect

The antimicrobial activity of allicin is due to the inhibition of thiol-containing enzymes in the microorganisms. Garlic is effective against a number of gram-negative, gram-positive, and acid-fast bacteria, including *Staphylococcus*, *Salmonella*, *Vibrio*, *Mycobacteria*, and *Proteus* species^{xxii} protozoan parasites such as *Entamoeba histolytica* and *Giardia lamblia*^{xxiii}

Hypoglycemic Effect

The hypoglycemic action of garlic could possibly be due to potentiation of the insulin effect of plasma by increasing the pancreatic secretion of insulin from existing β -cells or its release from bound insulin and enhancement of insulin sensitivity..^{xxiv}

Anti-inflammatory Effect

The anti-inflammatory activity exhibited by garlic is mainly through inhibiting the assembly-disassembly processes of the cytoskeleton.^{xxv}

Safety

Caution in patients taking antiplatelet medication as it may potentate anticoagulation effects of these medicines. There is no direct evidence that garlic and warfarin will interact but caution is advised. Caution with hypotensive medication as garlic reduces diastolic blood pressure. Avoid garlic for 10 days prior to operative surgery. There may be a positive interaction with statins by increasing the cholesterol lowering effects and monitoring is advised.²

CONCLUSION

In Ayurvedic parlance *Medoroga* a condition characterised by abnormal accumulation of *Medodhatu* can be correlated with Hyperlipidaemia. It is caused by vitiated *Kapha Dosha* initially and later *Pitta* and *Vata* involved in its pathogenesis. This vitiated *Dosha* afflicts *Medodhatu* involving *Medovaha Srotas*, producing the related symptoms of its own. *Rasona* should be included in daily life as a *Rasayana* for prevention and management of hyperlipidemia. The *Vatahara*, *Kaphamedohara* properties especially benefit in *Hyperlipidemia*. *Rasona* rectifies *Dhatvagni*, enhances nourishment through *Srotoshodhana* and brings about *Rasayana* effects on body.

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