

## **ORIGINAL RESEARCH PAPER**

## Ayurveda

# A REVIEW: PHARMACOLOGICAL AND THERAPEUTIC ACTION OF RASON (ALLIUM SATIVUM) OR GARLIC IN DIFFERENT DISEASES.

**KEY WORDS:** Lashuna, Rasayana, Indication, utapatti.

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Allium sativum Linn. is known as Lashuna in Sanskrit literally.

Lashuna means , it is devoid one rasa i.e. amla rasa. Garlic is recognized for its wide-reaching medical properties, in the treatment and prevention of deseases. Lashuna a perennial shrub like herb widely cultivated throughout the world. The Garlic plays important role in the daily diet and also help in maintaining good health that's why it is widely suggested by physicians. Lashuna is a most important hurb used in many conditions mainly used as a Rasayana Vatavyadhi, Amavata etc. the essential chemical components of Garlic are Helpful in daily routine for making physics fit and it acts over hypercholesterolemia . the wide range of Garlic, health benefits come mainly from its main ingredient, Allicine. The present review is therefore an effort to give the details of pharmacological and therapeutic uses in different diseases.

#### **INTRODUCTION-:**

Garlic (Allium sativum) has played an important dietary as well as medicinal role in human history. It has more than 45 species which are used as medicine in different parts of the globe right from Siberia to tropical countries like India. Depending upon the geographical condition, its colour and taste varies. But all the therapeutically useful species of this plant have the characteristic odour of garlic. Ayurvedic tests are replete with references to its therapeutic excellence. This plant is extensively used as medicine all over the world

Garlic (Allium sativum) is one of the most traditionally used plants as a spice and herb. Garlic has been using for a variety of reasons which most Of them has been approved scientifically anti atherosclerosis, anti microbal, hypolipidemic, anti thrombosis, anti hypertension, anti diabetes and etc. Ayurveda is a science not only deals with diseased, but also with Swastha condition. Lashuna or Garlic, as it is more commonly known, is a potent herb helpful in preventing Hypercholesterolemia.

In Charaka samhita it is explained Guru paki and Vrushya, and it acts on Krimi, Gulma, vatavikara.

According to Ashtanga Sangrahakara Lashuna leaves are alkaline and sweet, while middle part is sweet and smeary; the bulb is sharp, hot, katu in taste and Vipaka and its laxative. Sushruta also tell about its Vrushya guna tells its indication in jeerna jwara, kushth, Arsha, Gulma and it is Balavardhaka also. In Charaka Samhita and Susruta Samhita, Lashuna is mainly advocated in Vataja disorders, and its Vrushya also.

Ayurveda, the discipline of existence, explained the two type of Bhesaja Viz Svasthasysa Urjakara and Athurasya Roganuth. Among them Rasayana Karma comes under Svasthasys Urjaskara. (Ch.Chi1-1/4)

**Historical Review-:** It was like this that wife of Indra did not achieve conception for 100 years. Indra made her to eat nectar. She is being delicate, shy and her closeness to her husband eructed and spilled of this nectar over unholy places. Indra told her wife that she will be blessed with many children and the nectar will become a rasayana on the earth. Due to defect of place will have a bad smell and will not be used by brahmanas. On the earth, the name of this nectar will become lashuna.

Since it was born from the body of a rakshasa, hence the brahmanas don't eat it. However, as it is born from nectar, so it is a very good rasayana.

## **Botanical Classification-:**

Family-Rasona kula (Liliaceae)

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Latin name- Allium sativam Linn.

**Synonyms**- Rasona, Ugragandha, Mahoushadha, Mlecchakanda, Yavaneshta,

Regional name-

Marathi-: Lasun Hindi -: Lahasuna Guj .- Lasan

Tam. - Vella pundu

**Botanical Description-:** A bulbous herb, 60cm high. Leaves-long flat, acute, sheathing the lower half of stem. Flowering scape slender, smooth, shining; spathes long, beaked flowers- small, white, prolonged in to Leafy points.



**Nutritive composition-:** The drug contains carbohydrates, vitamins (folic acid, niacin,thiamine vit c) amino acids (arginine, asparagic acid methionine) Enzymes (allinase) ,volatile compounds, prostaglandins  $A_2$ ,  $D_2$ ,  $F_2$  and E2,  $M_n-23.5\%$ , vit B6 17.5%, vit C 14.7%, tryptophan 6.2%, selenium 7.5%, Ca 5.1% P-4.5% Cu 4%, protein 3.6% etc.

## Pharmacology of Lashuna-:

#### Rasa-

Lashuna is having panch rasa. Except Amla rasa. Different parts have different Rasa like patra is having Tikta Rasa; nala is having Lavana rasa and Katu pradhana Rasa.

Guna-: Snigdha, tikshna, pichchhila, guru, sara.

Virya-: Ushna Vipaka-: katu

Madhura Tikta, and katu rasa are Balvana gradually. It is sneha yukta, so it's having Bruhmana effect also.

**Chemical Constituents-:** Steamed distillation of crushed fresh bulbs yield 0.1-3.6% of a volatile oil some sulphur containing compounds that make up This oil are thought to be responsible for most of garlic's pharmacological properties.

- Allicin- Natural antibiotic-fights bacteria, mainly responsible for pungent odor. This widely researched component of garlic is highly therapeutic and is used in various drugs and pharmaceutics.
- Allicinase Inactivated by heat- cooked garlic does not have a strong an odor as raw garlic (nor nearly as powerful physiological effect)
- Ajoene-: Decreases blood cell clumping.
- Selenium- Antioxidant contained in high quantities in garlic.
   Antioxidant fight oxidation and free radicals inside the body that wear out the body& may lead to cancer.
- Saponins- Lowers blood pressure, decreasing chance of stroke.
- Fructans May stimulate the immune system.

**Physiological Effects of Garlic:** Garlic lowers the blood pressure. Garlic lower the LDL Cholesterol. Garlic helps to reduce atherosclerotic build up (plaque) within the arterial system. One recent study shows this effect to be Reasonably greater in women than men. Garlic lowers or helps to regulate blood sugar.

Garlic helps to avert blood clots from forming thus reducing the over all possibility of strokes and thromboses. Garlic helps to remove the heavy metals such as lead and mercury from the body.

Raw Garlic is a potent and natural antibiotic and, while for less strong than modern antibiotics, can still kill some strains of bacteria that have then become immune or resistant to modern antibiotics. Garlic has the anti-fungal and ant-viral properties. Garlic has anti-oxidant Properties and it is a great source of selenium.

**Lashuna bheda-:** There are two type of Lashuna explained according to Kashyap samhita;

- 1. Girija
- 2. Kshetraj

In Nighantus two type of Lashuna is mentioned one is Lashuna (Allium sativum) and the other one is Mahakanda/ Grinjana (Allium ascalonium Linn).

 $\textbf{Lashuna Matra-:} \ Kashyapa \ samhita \ in \ kalpa \ sthana \ explain \ three \ different \ Matra.$ 

- Avara matra 4 pala
- Madhyama matra- 6 pala
- Uttama matra 8 pala

Ideal dose in seta kala (cold season) it is 4 pala.

#### Therapeutic action of Lashuna-:

**Digestive system:** It should be used in low fire, tastelessness, in digestion constipation, pain, worm and kapha- Vata diseases due to condensed doshas, being fire stimulant, digestive and analgesic due to pungent and hot qualities, laxative due to oily and heavy qualities and liver stimulant and wormicidal due to tastes. Should be used in kapha- vata piles being laxative, anti-pruritic and ant-spasmodic as it is liver stimulant and removes stasis in the portal circulation should not be used in haemorrhoids.

**Sciatica and similar diseases:** In these diseases initially apana onward movement is carried out by dissolution of kapha by its pungent taste and hot and penetrating qualities and later on apana is pacified by hot and penetrating qualities. However, it should not be used in pitta covered apana.

**Respiratory system:** It should be used in cough, asthma, hoarseness of voice, rhinitis, tuberculosis and hiccups to cause Kapha liquefaction and to heal the cavity. Rashona causes prana onward movement and pacification in Vata—Kapha diseases of the chest. Rasona and pippali gives immediate relief in rhinitis associated with tuberculosis.

**Circulatory system:** It stimulates Heart and circulation due to its hot and penetrating qualities and eliminates edema. It pacifies

Vata and Kapha by its hot and penetrating qualities and helps nourishment of heart and increases its strength.

**Arteriosclerosis and Cholesterol-:** Numerous clinical trials have shown garlic to be good for your heart by lowering total cholesterol and blood pressure. Garlic has the ability to combat plague formation in the arteries.

Its ability to lower serum cholesterol in the blood can in turn reduce the risk of cardiovascular disease. Garlic lowers the total cholesterol, LDL cholesterol (the bad cholesterol) and triglycerides.

Rheumatoid Arthritis-: It digests ama circulating in the body and lodging in the joints. It pacifies vyanavayu and removes joint edema and pain. Digestion of rasa penetrated ama reduces fever also

### Nervous system-:

**Vata diseases:** Its removes obstruction of channels by its hot and penetrating qualities and causes onward movement and pacification of Pranavayu and nourishes it. Hence, used in bell's palsy, paralysis, monoplegia etc.

**Reproductive system-:** It should be use as shukra producing as it causes shukra aggravation by its oily, sticky and heavy qualities and prevents premature ejaculation by pacifying vyanavayu. Its hot and penetrating qualities dilate decidual blood vessels and hence it should be used in dysmenorrhoea as menstrual stimulator.

**Urinary System-:** Should be used in Vata dysuria as diuretic and as antispasmodic as it acts as diuretic by stimulating kidney function by its hot and penetrating qualities and by pacifying Vata.

**Skin Desease-:** It should be used in kilasa, vicharchika, shvitra, etc. As it causes digestion of the skin penetrated vitiated Kapha and pacifies vyanavayu.

Rasayana Property: Lashuna is used as Rasayana(meaning circulation of 'Rasa''). The ancient Indian physician, Kashyapa described that, Lashuna born from nectar hence the Rasayana property. Rasayana properties are increased life span, promotion of intelligence, improved memory, freedom from diseases, strengthens the teeth, flesh, sukra produce shonita and nourishes the breast.

In Charaka samhita, the drug has been indicated in skin disease, kushtha, kilasa,vataj disorder( neurological disorder) and it increases the sperm count and sperm motility(vrusya).

Vagbhata considered Lashuna as the vatahara dravyas. He emphasized the role of Lashuna as a Rasayana in the treatment of vat Avaranas.

#### Pathya - Apathya -:

**Pathya-** Shali, shastika, Anna, Takra, Yusha, Shukta, Mandhya sevan etc.

**Apathya-** Virudha anna, Vidaha, shaka, Abhishyandi anna, Maithuna, Chinta, Shoka, Vyayama etc.

**Side –Effects of Lashuna-:** Although ,garlic is a natural Antibiotic but a very small number of people have been known to exhibit Hypersensitivity to garlic. Garlic allergy includes skin rash, temperature and head-aches.

Garlic intolerance could result in heartburn or Flatulence.

#### Contra-indications/Precautions of Lashuna-:

- Do not consume more than three to four raw cloves of garlic a day.
- Patients having heart and other problems should take medical Advice before consuming it.
- It's best to avoid garlic before any surgery because it could probably disturb Anti-coagulants.
- If patient is on any medication, always check with doctor first

before taking raw garlic.

Do not use in sensitive skin.

#### **CONCLUSION-:**

The use of herbal drugs is increasing. One of these plants used the most intensively and wide-spread is garlic. Fresh Shape, powder state and garlic oil has been effectively used all around the world again. Garlic, Allium sativum L. is a member of the Alliaceae family, has been widely recognized as a valuable spice and a popular remedy. For various ailments and physiological disorders like bacterial, viral, mycotic, and parasitic infections.

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