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RASONA (*ALLIUM SATIVUM)* A WONDER DRUG FROM ANCIENT TO MODERN AND KITCHEN TO MEDICINE

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ABSTRACT:

Lasoona is a most potent herb used in many conditions mainly used as a rasayana in Vatavyadhi, amavata ec. The plant consists of five rasas except lavana rasa. It has many synonyms which indicates its morphology,properties, and taste. It not only posses medicinal values it posses nutritive value also. Many acharyas used this potent herb in many formulations like lashoonadi vati,lashoona ksheera paka etc. this article describes its morphology,synonyms,habitat,uses,dose,indication,contraindication,recent research work etc.

Key Words: Lasoona , *Allium sativum* Linn, Garlic.

INTRODUCTION: *Allium sativum* Linn is an important and well known herb belong to family *Liliacea* commonly called as garlic in English, mainly used as a spice worldwide.[1] Lashoona means rasa oona[2] 'devoid of amla rasa' (sour). In kashyapa samhita there is a chapter called lashoona kalpa adhyaya, which contains many references and elaborate explanation on the origin, method of administration, benefits etc of lashoona[3.] In Caraka Samhita and Susruta Samhita lashoona is mainly advocated in vataja disorders in the form of rasayana[4.] The significance of the drug is very well mentioned in several classics and pharmacopeias.

ORIGIN AND HABITAT: According to ancient literatures, Lord garuda while taking the Amrutha from the heaven, few drops of amrutha fallen on the earth by these drops lashoona takes its origin[5.] A scapigerous foetid perennial herb with underground compound bulb covered over by outer white thin scales and with simple, smooth, round stem, surrounded at the bottom by tubular leaf sheath[6.] Cultivated throughout India mainly in Punjab, Karnataka, Tamil Nadu, Andra Pradesh, Uttar Pradesh and Gujrat[7] The botanical name of the garlic is *Allium Sativum* Linn[9]

Contemporary literature : Garlic belong to onion family is a native of central Asia with recorded usage of 7000 years for its culinary and medicinal properties, presently grown in Asia, Africa and Europe. Currently India is the second largest producer of garlic in the world followed by China.

Types: In Kashyapa Samhita two types of garlic has been mentioned depending upon the distribution. The one which grows in the hills ie is girija is like a nectar used by the gods, physicians and Brahmins for the achievements and other which grows in the plains is ksetraja[10]

In Nighantus two types of lashoona is mentioned one is lasuna (*Allium sativum*) and the other one is maha kanda /grnjana (*Allium ascalonium* Linn)[11]

Synonyms :

D.Ni.[12]	R.Ni[13]	K.Ni[14]	Sh.Ni[15]	Bha,Ni[16]
Aristha	Aristha	-	Aristha	Aristha
Mlecchakanda	Mlecchakanda	Mlecchakanda	Mlecchakanda	Mlecchakanda
Mahoushada	Mahoushada	Mahoushda	Mahoushda	Yavanestha
Maha kanda	Bhootaghna	Mahakanda	Sweta kanda	Mahoushda
Grunjana	Ugragandha	Ugragandha	Vatari	Ugragandha
Deerga patraka	Sheetamardaka	Yavanestha	Deerga patraka	
		Deerga patraka		

Vernacular names: Garlic (English), lasan (Hindi), Thum (Sind), sir (Persian), shunam (Gujrathi), velluii (Telugu), vallapundu (Tamil), vellulli (Malayalam), bellulli (Kannada), rasun (Bengali).[17]

Botanical description[18]: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 into leafy points .

Nutritive composition: The drug contains carbohydrates (arabinose, galactose), vitamins (folic acid, niacin, thiamine, Vit. c), amino acids (arginine, asparagic acid, methionine), enzymes (allinase), volatile compounds (allylalchohol, allylthiol, allylpropyl disulphide), prostaglandins A_2,D_2,F_2, and E_2[19]. Mn 23.5%, Vit B6 17.5, Vit C 14.7, tryptohan 6.2%, selenium 7.5%, Ca 5.1%. P 4.5%, Vit b 14%, Cu 4%, protein 3.6%.

PROPERTIES: As the name lasona itself suggests the drug contains five rasas except the amla rasa. Owing to different types of rasa present the drug has wide range of activities. Based on its action the drug has other synonyms like, arishta (able to cure many diseases), mahoushada (treat vataja disorders), vatari (subsides vata), bhootaghna (microbicide), ugragandha (having strong odor), deeragatraka and shulka kanda indicating the morphology of the plant.

Bhavaprakasha describes the presence of rasa in different parts of the plant like, moola (root) patra (leaf), naala (stem) kashaya naalagra (tip of the stem) and beeja (seed).[20] The drug is used as 'rasayana' (meaning circulation of "rasa"- the nutrient in Sanskrit). The ancient Indian physician, kashyapa described that, lashoona is 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, nails, beard and hair. The drug clears the channels (srotas), produces sukra (sperm and spermatic fluid) produce sonita (ovum and ovarian hormones) and nourishes the breast.[21]

In caraka samhita, the drug has been indicated in skin diseases (kustha, kilasa), vataja disorder (neurological disorder), and it increases the sperm count and sperm motility (vrsya)[22]. Vagbhata considered lasuna as the best among the vatahara dravyas. He emphasized the role of lashoona as a rasayana in the treatment of vat avaranas.[23]

Contraindications : According to Kashyapa use of drug is contraindicated in person with kapha and pitta origin, progressive emaciation of the body, aged person, no digestive power, puerperal women, pregnant women, child suffering from ama, fever, diarrhea, who received

emesis, purgation, nasya, basti, suffering from thirst, vomiting, cough, dyspnea, ascites, lack of patience, helpless, poor and bad natured[24]. However, according to Vagbhataacharya lashoona is contraindicated during anemia, diseases of abdomen, chest injury, sopha, thirst, eye diseases, emaciation, pittaj and raktaja disorders.[25]

Dose /duration /time /season: Ideal dose in the sita kala (cold season) it is 4 pala or 50 number while in hemanta it is 6 pala or 60 numbers and in sisira it is 8-19 pala or 100 numbers. The duration of the treatment recommended is a minimum of 15 days and maximum of 6 months.[26]

Purification : Lashoona tuber after removing its outer covering is bifurcated and the ligule in the middle is removed and it is kept in curd overnight to remove its bad odor. The drug is then washed, dried and pounded before use[27]

Classical uses of lashoona:

1. Vatavyadhi (neurological disorder) : Oil cooked in lashoona juice was reportedly cures vata[28], the drug is best remedy for vataja disorder[29] additionally the drug is used as a rasayana to cure all types of avarana except pitta and rakta[30]
2. Amavata (Rheumatoid arthritis): alcoholic preparation of lashoona (rasona sura) is indicated in Rheumatoid condition[31]
3. External application of paste of lashoona kill the organisms[32]
4. Paste of lashoona promotes lactation[33]
5. Rasayana – paste of lashoona mixed with ghee and honey taken for a period of one year provides health and logivity[34]
6. Disorders of female genital tract the juice of lashoona should be taken in the morning[35]
7. Gulma – lashoona processed with milk indicated in vatarakta, fever, cardiac disorder, abscesses and oedema[36].

Pharmacological activities of Lashoona: Modern research has reported different therapeutic activities of the lashoona as Antimicrobial, [37] Anti oxidant[38] Cardio protective[39] Anti diabetic[40] Cancer chemo preventive[41] Neuroprotective[42] Nephroprotective[43] Immunomodulator[44] and Anti ageing[45].

Study conducted on administering the garlic in different farm, it was found that at approximate dose of 4 g/day for six months it has significantly reduced the LDL levels and other plasma lipid concentrations in adults in moderate cholestremia.

Antiplatelet activity: it contains allicin thiosulfinates responsible for antiplateletic agent contribution to the prevention of cardiovascular diseases.

It helps in improving he iron metabolism, the di allyl sulfide in garlic helps in increasing production of a protein called. Ferroprotein, a protein that runs across the cell membrane and forms passage where that allows stored iron to leave the cells and become available where it is needed

Cardioprotective; red blood cells, take sulfur containing molecule in garlic called polysulfide and use them to produce hydrogen sulfide. This hydrogen sulfide inturn help blood vessels expand and keep our blood pressure in check.

Antithrombotic and anticancer effect: Garlic contains 20 kinds of sulfide compounds, these functionctions are different from one another.

Important preparations : lasunadi vati, rasonapinda, hingutriguna taila, rasonasura, lasuna kalpa, rasona Rasayana, rasonastaka, rasona vataka, lasuna ksirapaka, lasunadi ghrta.

Adverse effect: Garlic is known for causing bad breath (halitosis), as well as causing sweat to have a pungent "garlicky" smell, which is caused by allyl methyl sulfide (AMS). AMS is a volatile liquid which is absorbed into the blood during the metabolism of garlic-derived sulfur compounds; from the blood it travels to the lungs (and from there to the mouth, causing bad breath; and skin, where it is exuded through skin pores. Washing the skin with soap is only a partial and imperfect solution to the smell. Studies have shown sipping milk at the same time as consuming garlic can significantly neutralize bad breath. Mixing garlic with milk in the mouth before swallowing reduced the odor better than drinking milk afterward. Plain water, mushrooms and basil may also reduce the odor; the mix of fat and water found in milk, however, was the most effective.[46]

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