



Review Article

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A REVIEW ON LASHUNA (*ALLIUM SATIVUM*) IN PEDIATRIC PRACTICE: EVIDENCES FROM AYURVEDA

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ABSTRACT

It has been always a desire by the Ayurveda fraternity to search and look for potent Ayurveda medicines which comes for several uses in relieving the diseases and many other such conditions that preserves the health and increases the longevity of human beings. One such drug is lashuna (Garlic). Garlic's prescription is found in various diseases with combination of various drugs by almost all the authors. Found to be beneficial in krimi (parasitic infestation), kushtha (skin diseases), kilasa (leukoderma), diseases caused by vata, gulma, heart disease, chronic fever, abdominal pain, constipation, anorexia, cough, edema/inflammation, durnama (piles), retention of flatus, disease caused by vata-kapha, dyspnoea, beneficial for hairs, fractures, urinary disorders, chronic coryza etc. Moreover, Kashyapa in kalpasthan "Lashuna Kalpadhyay" (chapter 2?) has described in detail and vividly about the pharmaceutical preparations of garlic for the benefit of mankind. This shows that the lashuna is a wonder drug even in Ayurveda pediatric practices also and is important for many diseases and rejuvenating conditions. Thus, the goal of discovering such a potent drug which is already known to the common man, easily available, economic etc., becomes successful, if and only if the common man finds its use in daily life after knowing its properly. The paper provides detailed description of the evidences regarding the use of lashuna (*Allium sativum*) in pediatric practice from Ayurveda.

Keywords: lashuna, *Allium sativum*, Ayurveda, paediatrics**INTRODUCTION**

It has been always a desire by the Ayurveda fraternity to search and look for potent Ayurveda medicines which comes for several uses in relieving the diseases and many other such conditions that preserves the health and increases the longevity of human beings. In the above context, we find many potent drugs available in our Ayurveda texts, some of which are very much easily available to the common man and some have also become extinct and are not available (like vishalyakarni). One such drug is lashuna (Garlic). Garlic's prescription is found in various diseases with combination of various drugs by almost all the authors. Found to be beneficial in krimi (parasitic infestation), kushtha (skin diseases), kilasa (leukoderma), diseases caused by vata, gulma, heart disease, chronic fever, abdominal pain, constipation, anorexia, cough, edema /inflammation, durnama (piles), retention of flatus, disease caused by vata-kapha, dyspnoea, beneficial for hairs, fractures, urinary disorders, chronic coryza etc. It is unctuous (snigdha), increases *shukra*, is hot sharp, pungent, slippery (picchila), heavy, laxative, increases strength, is aphrodisiac, beneficial for intellect, voice and complexion, is digestive and appetizer. It is sweet or pungent in taste; in its leaves slight alkaline taste is found, it is hot in potency (virya) and is rasayana (rejuvenator)¹.

Moreover, Kashyapa in kalpasthan "LashunaKalpadhyay" (chapter 2?) has described in detail and vividly about the pharmaceutical preparations of garlic for the benefit of mankind². This shows that the lashuna is a wonder drug even in Ayurveda pediatric practices also and is important for many diseases and rejuvenating conditions. Thus, the goal of discovering such a potent drug which is already known to the common man, easily available, economic etc., becomes

successful, if and only if the common man finds its use in daily life after knowing its properly.

General Description**History about Birth of Lashuna**

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 (rejuvenating substance) 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 lashuna³.

A different story was given by Vagbhatta. The nectar obtained on churning the sea was stolen by Rahu and he swallowed it. He was immediately beheaded by Vishnu and the drops of nectar fell over earth and become garlic. 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 rasayana⁴.

Table 1: Properties of Lashuna

Part used	Rasa property	Vipaka
Seed	Katu (Pungent)	Madhura
Stem	Lavana and tikta (Salty and bitter)	
Leaves	Kashaya (Astringent)	

Here, sweet, bitter and pungent are predominantly in succeeding order. Being sweet it is heavy and good brimhana (anabolic) due to its unctuousness. Due to its heaviness and having general rasas, it cures common diseases, increases longevity, is appetiser, aphrodisiac, is blessed or fortunate for disease free

state. It clarifies memory, intellect, and strength, provides longevity, complexion and eyes (sight), produces good smell in the mouth, cleaner of all srotas (channels). It is producer of shukra, shonita, garbha, negation of shyness, produces delicacy, is beneficial for hairs, stabilises life. It is rasayana, the teeth, flesh, nails, moustaches/beard, hair, complexion, age and strength of the born human beings eating lashuna never declines. By its daily use the breast of women never lax (fall), neither their beauty nor progeny or strength or longevity decreases. Their fortune increases and youth become stable. Excessive use of lashuna keeps them clean and disease caused by coitus does not trouble them and she remains clean after excessive use of lashuna. The disease based in sacral region, hips and other body parts could not affect her she neither becomes infertile nor ugly looking. The man becomes stout, intelligent, with good longevity, handsome with good progeny, does not get tired in coitus and retains sukra (seminal ejaculate). The number of women he copulates, those women achieves conception; the child born will have the fragrance of nilotpala (*Nymphaea stellata*) and Padma (flowers). The body of a human being attains softness, voice (throat) sweetness and pacifies diseases of grahani (gastro intestinal tract) and promotes metabolic fire⁵. Since it has five rasas (tastes) except salty, it is sharp and hot like fire, thus the persons of delicate nature if uses it can produce in them sensation of burning, diarrhea, restlessness and confusion, so it should not be used hurriedly. It cleans the seeds of those men and women who are desirous to have a child possessing excellent speech, intellect, feature and qualities. As it is developed from the drops of the nectar, so the person using it methodically during winter season attains beautiful golden complexion and live disease free, satisfied and potent life for hundred years; delicate person should use lashunasava⁶.

Types of Lasuna

Lashuna is said to be of two types one that is grown in the hills and the one that is grown in the fields. The former one is good like nectar, in non-availability of that, other one should be used. This is fit to be used by gods, physicians, brahmanas for achievement of desires⁷.

Indications, Contraindications, Period of use and Dose for Lashuna

Given in dislocation, fracture and diseases of bones, all diseases of vata, diseases of menstruation, seminal disorder, in confusion/giddiness, cough, all kushtha (skin disorders), parasites, gulma, kilasa (skin disease), itching, blisters, discoloration, timira, (cataract), dyspnoea, night blindness, inadequate diet, chronic fever, burning sensation/ indigestion, tertiary and quartan fever, injury/disease of channels, stiffness of body, emaciation, bladder stone, dysuria, kundala (vastikundala i.e. atony of bladder), fistula-in-ano, meno-metrorrhagia, disease of spleen, pangulya (lameness), vatashonita (gout), for the increase of intellect, digestive enzyme (digestive/metabolic) and strength. By this way one becomes disease free and body attains increment quickly⁸ (one becomes healthy soon). It is indicated in burns by ice or cold air having stiff, fractured, tortuous and diseased bones and one suffering from disease of vata; its different preparations are said to be beneficial in diseases of vata with kapha, facial paralysis and in all the avaranas (covering) of vayu except those by pitta and rakta⁹.

It should not be used in the disease of kapha and pitta; in progressive emaciation of the body, aged, having no digestive fire, puerperal woman, pregnant woman, child, one who is suffering from the disease of ama, fever, diarrhea, jaundice, piles, stiffness of thighs, constipation, diseases of throat and

mouth; having received emesis, purgation, nasal instillation and dessionication recently, seized with thirst, vomiting, hiccough, dyspnoea, ativrdhi (ascites), absence of patience and helplessness, by persons of poor and bad natured and those who have received cleansing enema¹⁰. Vagbhatta –I has contraindicated lashuna in anemia, disease of abdomen, chest injury, shophya (inflammation/edema), thirst, disease of pitta, eye disorders, timira (cataract) and emaciation¹¹. If a person having predominance of rakta and pitta, uses garlic then suffer from the disorders of these doshas¹². To them who are over desirous for water jaggery, and milk, have aversion for meat, urine and sour substances, and also are prone to suffer from indigestion, use of garlic produces complications¹³.

In diseases not having loss of digestive fire and strength, capable of stabilising the age and being palatable from the peelings unwashed lashuna should be used in the month of pausha or magha, its doses and regulations are according to digestive/metabolic fire of the body, period and congenial. Four pala (192 grams) dose of lashuna is small, six pala (288 grams) is medium and eight or ten pala (384 or 480 grams) is the best one. The numerical dose is 100, 60 and 50 (best, medium and low) of dry, strong seeds (cloves) along with peels; of green (lashuna) the dose is according to palas (48 grams) or else (one) should eat the prepared ones (lashuna) till one has enthusiasm or become unconscious¹⁴. It is advised for used in shita (winter), hemanta (early winter), shishira (winter) seasons, even during autumn in case of predominance of vata or else in all the season with the indication given for summer seasons; the period for its use is one month, others say, that with pure wine, it should be used for six months according to one's desire, its use for fifteen days is minimal and less than this is useless¹⁵. The best dose of lashuna mixed with wine or oil etc., is one kudava (192grams), of its juice is ½ kudava (96grams) and of its paste is one pala (48 grams)¹⁶.

Methods of use

On an auspicious day, the resolute man having excessive agni (good appetite and digestive fire), free from agitation, living happily in a place not having direct entry of air, possessing blankets of deer, silk, cotton, kovaya or hairy hide of lion/elephant, wearing clean clothes, abundantly fumigated with aguru (*Aquilaria agnocha*), possessing fumigation material as well as powders and wearing daily sandals, should use lashuna. The lashuna should be brought by one person and prepared by another person. Discarding the leaves, the seeds, and stem after cutting in small pieces should be dipped in sufficient ghrith and prepared. Befitting the child (his condition or disease) the fresh ghrith made with fresh butter and recently extracted oil (should be used). These cut pieces should be inundated sufficiently in oil and ghrith and when these settle down in spite of inundation, should be used. After snehan (oleation) for two, three, five, ten, or eight days, avoiding worry about oneself, day sleeping and tooth prick; having proper digestion of diet, getting up pleasantly, having recitation of auspicious hymns/words by brahmanas, one should eat these in sitting posture and then should always use hot water; as a condiment ardraka (*Zinziber officinale*) and kesara of matulunga (*Citrus medica*) and dadima (*Punica granatum*) are to be given; except reddish all the greens vegetables should be given. Over the fried cloves of garlic, powders of twaka (*Cinnamomum zeylanicum*), patra (*Cinnamomum tamal*), shunthi (*Zinziber officinale*), maricha (*Piper nigrum*), small ela (*Elettaria cardamomum*) and jati (*Jasminum officinale*) mixed together are to be sprinkled and powder of available all the salts should also be sprinkled and well prepared wine also be given methodically. Seated near the fire with comfort should eat lashuna and drink wine alternately,

thus, should eat slowly up to full satiation. Afterwards the person knowing itiology, status of digestive fire, disease and congenial, should drink either hot water or wine or boiled milk and should not eat anything else. Then after washing the hands, face, lips with powdered kalaya (*Pisum sativum*) (peas), and hot water, and sitting near fire covered with heavy clothes, should take betel leaves with jati (*Jasminum officinale*), flowers of lavanga (*Syzygium aromaticum*) and karpura (camphor) and fruits of kankolaka (*Piper cubeba*), then hold spittle in the mouth and should not use day sleeping; by this way his shleshma gets dissolved, unconsciousness subsides, to him fragrance appears, and foul smell gets destroyed. If thirsty, should drink hot water treated with appetising drugs, even in excess aggravation of pitta drinking luke warm water is desired. After drinking lukewarm water with either mustaka (*Cyprus rotundus*) and shunthi (*Zinziber officinale*) or shunthi (*Zinziber officinale*) and balaka or only shunthi (*Zinziber officinale*) should sleep comfortably at night. The one having control over his cognitive and conative organs should eat lashuna with this method for a fortnight or one month or a season or 3 or 4 months or entire hemanta ritu (winter season) collecting this drug should be according to disease and time. Drug substances are not fit to be used due to fear of aggravation of pitta, beneficial cereals also are to be given in little quantity. Dry fragrant, palatable bread, made of dough of barley and wheat mixed with salt and cooked over baked earthen pot, hot polika (chapaties) made of shali (rice) preparation of mudga (*Phaseolus radiatus*) and kulmasa (a variety of pulses); bolus with five lines (compressed in a fist) of parched flour (saktu) mixed with good salt but less oleaginous substances should be eaten. Lava (quail), ena (a type of deer), partridge, rabbit, kapingala (the cataka bird), chakora (greek partridge said to feed on moon beam and other wild birds and animals should be taken for meat. Hot medicated meat with sour substances, salt, oleaginous substances, condiments or sour juice of fruits of kola (*Piper longum*), amalaka (*Embllica officinalis*), dadima (*Punica granatum*) or vastuka (*Chenopodium album*) cooked with changeri (*Oxalis corniculata*) and amalaka (*Embllica officinalis*), cooked in dadima (*Punica granatum*) (hard shell of dadima fruit) should be taken. The one who eats too much fatty substances, to him dry cereals (diet) are beneficial and who used little fatty substances, good oleaginous substances should be given in the diet. One who is suffering from kushtha (skin disease), dyspnoea, tama (feeling as if entering into the darkness), cough, prameha (urinary disorders), vatakundala (atony of urinary bladder), meditating (ailments caused due to constant sitting) suffering from pliha (splenomegaly), piles and gulma (abdominal distension), the garlic should be eaten without water, at the end of eating lashuna should use soup in diet and drinks. One pala (48 grams) paste of lashuna, two pala (96 grams) paste of dadima (*Punica granatum*), two pala (96 grams) each of meat, ghrita and oil should be mixed with good quantity of condiments and salt. Then it should be given hot for eating to the hungry person.

Little quality of white variety of shali and shastika (variety of rice) mixed with curd and butter milk should be eaten, for three days; yusha (soup) should be given for drinking; afterwards for another three days scum of cooked mudga (*Phaseolus radiatum*) with sukta (vinegar) is beneficial. Stat soup should not be eaten. It should be prepared daily¹⁷. As Vagbhata has prescribed it to be used as Rasayan, this slightly different mode of administration is described, however these authors have also advised it to be worn as ear ring and crown, its juice mixed with wine should be used, those hot drinking wine should be mixed with lemon juice, butter milk, sour fermented drinks etc. A large number of other preparations are also prescribed, the cow being kept empty stomach for three days should be fed with garlic, its

milk, curd, buttermilk and ghrita are also beneficial, detailed dietetic instructions, condiments and other drugs to be mixed and various recipes of garlic are prescribed¹⁸. The person sleeping and sitting in place having no direct entry, should give up articles contrary to each other's or likely to cause vidaha (burning sensation/indigestion), vegetables, milk and milk products, abhishyandi (moisture producing) cereals, meat and eatables made with sugar-cane, travelling, coitus, worry, grief, exercise, desiccation and all non-beneficial¹⁹.

During use of lashuna, use of cold things should be given up. Cold and oleaginous substances if used, can cause ascites, use of oleaginous substances and eggs can cause fear of pandu (anemia) and sophia (edema/inflammation) diseases. By use of unctuous substances, heavy diet and drinks the abnormalities of grahani and kamla (jaundice) develops. Bus use of bad wine, fish and products of cow (meat and milk as well as milk products of cow), several kustha (skin diseases) and kshaya (pthisis/emaciation) develop. By use of dry substances and during hot season there is fear of all the diseases of pitta, and colic, diarrhoea, tympanitis, nausea, vomiting, anorexia, hiccough, vishuchika (cholera), dysponea, sleepiness and other complications²⁰.

Obviation of complication should be done by respective treatment. In vomiting, indigestion, vidaha (burning sensation in stomach) and heaviness caused by kapha after making the person fast, then consuming appropriate congenial diet, should be given purgation, emesis, nasal instillation, holding in month according to strength of body a disease, he should give up sharp things. The wise person should have faith for regaining health and five up haste and agitation²¹.

The strong person after using lashuna having taken congenial diet for one week the eating full diet and being free from complications should be made to drink the ghrita mixed triphala and salt for three days after proper encouragement in the quantity which does not influence the diet and later be given cooked food for eating. By this the doshas which are hidden in the body subsides immediately and afterwards complications arising due to use of oleaginous substances do not trouble. If the person is not purgated then pama (skin diseases), blisters, itching, deafness, jadata (stiffness) and numbness trouble him. That is why mild purgation should be given with hot grita mixed with trivrit, triphala and salt followed by drinking of hot water. The wise having eaten lashuna should be avoided worship of teachers, god and agni. After taking bath, possessing fragrance and happiness of self, should worship teachers and god²².

Other actions and method of use of lashuna

One adhaka (3072grams) pounded seeds (cloves of garlic) should be dipped in one drone (12.288 litres) of water and put over fire, when cooked properly then be hidden in heap of shastika rice. By use of this, individual lives for 100 years remaining diseases-free and immortal. To whatsoever number of years, one eats this, lives 100 years of the same numbers and discard his old skin in the same way as the snake (discards) his slough. It is also mentioned that licking daily one pala (48 grams) of lashuna and two pala (96grams) of ghrita with little quantity of honey, should drink milk for one years and after its digestion should eat cooked rice with milk, he becomes free from all diseases, and lives for 100 years. One who is unable to take raw lashuna, to him lashuna fried with ghrita prepared like puplika of leaves (special dish made with flour of gram and wheat mixed with vegetables, salts and then fried in fat) should be given for use. Or else lashuna cooked with meat or rice gruel,

curd or half solidified curd and then medicated with so many other substances are praised. Hundred pala (4800 grams) of lashuna should be decorated in five drona (60 litres) of water till one drone remains. The same should be re-cooked with one adhaka (3072 grams) ghrita; in this one adhaka (3072grams) milk should be poured. In middle of this, hundred pala (4800grams) smooth, treated and peeled seeds of lashuna and what-so-ever appetizers, like prolongers and aphrodisiac (drugs) are available and one aksha (12 grams) dashmoola all should be put, when prepared it should be brought down (from the fire) then used in the form of drinks and eatables with honey and sugar is beneficial. The oil made with this very method is beneficial for use as enema. This provides vigour/ virility and progeny even to impotent, infertile and very old persons. Medicated with purgatives and emetic drugs is beneficial as rubbing in kushtha (skin disorders). Gandha-sarpi is used for leukoderma, sinus, parasites, in the form of drinks, diet and rubbing, brings disease free State and is unsurpassed. By the method named gandhamahat (big fragrance) is for the rich persons, looking into which even always mobile marut (air) along with marutganas (assistant/associates) and also with group of diseases of the user fastly runs away. One should eat lashuna methodically, also make its crown, wear garlands of lashuna over the head and ears, make external garments and blankets of lashuna, tie its bunches over hands, feet and neck. The under cloth of sitting and sleeping (spread over place) all should be made with this. In all the doors of the house also the pieces of clothes with lashuna should be placed. The wife person should make wife, brother, sons, female servants, attendants all of them like him covered with lashuna. During use of this gandhavara (best fragrance), all diets and drinks should be made with abundant lashuna. As per desire the musical instruments should be played, songs should be sung; acrobat/funambulist, bear and wrestler should show their own learned skills. The fragrances, garlands, diet and drinks should be made as per desire with lashuna. Looking into this great fragrance the vata returns from door. The wives of sages were seen by disregarded rudra moving in forest of devdaru (*Cedrus deodara*) in secret dorm for alms. As they had no progeny so they reached his shelter the satisfied god told the words to bhadrakali (or) uma, for prescribing the big fragrance (lashuna) capable of bestowing strength, beauty and progeny to these wives of sages for eradication of all their diseases. This cures insanity, poisons, curses and all the diseases of vata. Definitely the progeny will happen (the child will be born), it is true as stone-lines. Then those women reciting name of brahma used this great fragrance and got the desires things and started this subjects²³.

Properties of Garlic

Common name: Garlic

Scientific name: *Allium sativum* L.

Family: Liliaceae

Habitat: Garlic is probably native to central Asia and is believed to have originated from there. However, it has been extensively cultivated on a worldwide basis for many centuries and is one of the most known kitchen herb in the world.

Description

Garlic is usually grown as an annual crop and is propagated by planting cloves, though seeds can be also used. Garlic plants grow about 60 cm tall. The long leaves typically arise from a short hard stem above the bulb or emerge from a softer pseudo stem of overlapping leaf sheaths. The bulb is covered with membranous skin and encloses up to 15-20 edible bulblets called cloves. The spherical flower cluster is initially enclosed in a pair of papery tapered bracts and the bracts split open when

the green-white or pinkish flowers bloom. Flower stalks sometimes arise bearing tiny bulbils and sterile blossoms.

Chemical Constituents of Garlic

Garlic contains 33 sulfur compounds, several enzymes and the minerals germanium, calcium, copper, iron, potassium, magnesium, selenium and zinc; vitamins A, B1 and C, fiber and water. It also contains 17 amino acids: lysine, histidine, arginine, aspartic acid threonine, swine, glutamine, proline, glycine, alanine, cysteine, valine, methionine, isoleucine, leucine, tryptophan and phenylalanine²⁴. Garlic has a higher concentration of sulfur compounds than any other *Allium* species which are responsible both for garlic's pungent odor and many of its medicinal effects. Most biologically active compounds in garlic is allicin (diallyl thiosulfinate or diallyldisulfide). The highest sulfur compound in garlic is alliin (S-allylcysteine sulfoxide), which is present at 10 and 30 mg/g in fresh and dry garlic, respectively²⁵. Although allicin is considered the major antioxidant and scavenging compound, recent studies document that other compounds may play stronger pharmacological properties without odor and are also heat stable²⁶.

Therapeutic properties: Clinical and Experimental evidences

Immune- modulation: Studies in human beings using an alliin standardized garlic powder preparation have demonstrated positive effects on immunoreactions and phagocytosis. In aged subjects, the administration of 600 mg garlic powder per day for 3 months induced significant ($p < 0.01$) increases in the percentage of phagocytising peripheral granulocytes and monocytes when tested *ex vivo* for their ability to engulf *Escherichia coli* bacteria. Another human study conducted with unrefined garlic extract (5-10g/day) which was given to HIV/AIDS patients. For the seven patients who completed the study for 12 weeks, there was a major increase in the natural killer cells activity from a seriously low mean value²⁷.

Antibacterial

Garlic extract inhibits the growth of both Gram positive and Gram negative bacteria, such as *Staphylococcus*, *Streptococcus*, *Micrococcus*, *Enterobacter*, *Escherichia*, *Klebsiella*, *Lactobacillus*, *Pseudomonas*, *Shigella*, *Salmonella*, *Proteus*, and *Helicobacter pylori*²⁸.

Antimicrobial

The antimicrobial properties of garlic were first described by Pasteur (1958), and since then, many studies had documented its effectiveness and broad spectrum antimicrobial activity against many species of bacteria, viruses, parasites, protozoan and fungi²⁹.

Antiviral

A double blind placebo controlled survey using a 100% allicin yielding supplement has reported that allicin can reduce the occurrence of the common cold³⁰.

Cardio-protective activity

In vitro studies have reported that, it has an ability to suppress low density lipoprotein (LDL) and an increased resistance of LDL to oxidation³¹. After 60 days of garlic supplementation, the low-density lipoprotein, serum triglyceride and very low density lipoprotein, were reduced by 21, 37, and 36.7%, respectively³². A study of 15 hypercholesterolemia patients were evaluated for a material produced from garlic fermented with the mold *Monascus pilosus*. This preparation significantly reduced serum

total cholesterol and low density lipoprotein cholesterol levels when checked at 2 and 4 weeks after treatment. The level of triglycerides had a tendency towards reduction in hypertriglyceridemic patients as well, whereas high density lipoprotein cholesterol remained unchanged³³.

Prevention of cancer: Human population studies have documented that regular intake of garlic reduces the risk of esophageal, stomach and colon cancer. This was assumed to be due to the antioxidant effect of allicin in reducing the formation of carcinogenic compounds in the gastro-intestinal tract³⁴.

Anti-parasitic activity: Allicin of garlic exhibits anti-parasitic activity against major human intestinal parasites such as *Entamoeba histolytica*, *Ascaris lumbricoides* and *Giardia lamblia*³⁵. *Entamoeba histolytica*, the human intestinal protozoan parasite, is supposed to be very sensitive to allicin, as only 30 µg/ml of allicin totally inhibits the growth of amoeba cultures³⁶. Furthermore, studies have found that at lower concentrations (5 µg/ml), allicin inhibited 90% the virulence of trophozoites of *E. histolytica* as determined by their inability to destroy mono-layers of tissue-cultured mammalian cells *in vitro*³⁷.

Reduces high blood pressure/hypertension

Garlic has been most popularized as a complementary therapy for blood pressure control³⁸. A recent *in vitro* study has confirmed that, the vasoactive ability of garlic sulfur compounds convert garlic organic polysulfides into hydrogen sulfide, a known endogenous cardio-protective vascular cell signalling molecule³⁹. 2400 mg garlic tablet containing 31.2 mg allicin has reduced diastolic pressure by 16 mmHg after 5 h of administration⁴⁰. A meta-analysis made on pooled data from 415 patients also showed reduction of 7.7 mmHg diastolic pressure⁴¹.

Thinning of blood

Garlic constituents can reduce fibrin formation and also help reduce the fibrin existing in the blood more efficiently than aspirin⁴².

CONCLUSION

From the above description, it can be seen that *lashuna* is a wonder drug for use in many diseases/disorders and an established drug for use even in Ayurveda Paediatric practice as was explained by kashyapa. It is also used vividly in many ayurveda pharmaceutical preparations of Rasashastra where it is exceptionally used as a *bhavana* drug for purificatory purpose of parade and other metallic drugs used for different formulations. Its use for both as an external and internal application of varied forms of diseases/disorders makes it significant in our life for its periodic and rational use. Raw *lashuna* creates wonder but a smell coming out from the body of person after its intake makes a dim part for its discontinuation occasionally. Garlic should also be taken daily as a food substances along with salads and eaten raw because cooking kills essential components.

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