



A REVIEW ON LASUNA (GARLIC): A BOON FOR WOMEN

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DOI: 10.7897/2277-4572.101197

Received on: 23/12/20 Revised on: 18/01/21 Accepted on: 13/02/21

ABSTRACT

Women are the important pillar for the overall development of the healthy family as well as society. In the present era, due to sedentary lifestyle modifications lots of gynecological disorders arises and affects the quality life of female. Ayurvedic classics described all gynecological disorders under the umbrella of Yonivyapadas & Artava Vikaras and for that Acharya Kashyapa describing Lasuna as Lasuna Rasayana like nectar for various female disorders. To find out classical references for use of Lasuna in various female disorders along with its review of recent research on effect of Lasuna in management of female disorders. Classical reference of Lasuna for female disorders find out majorly in Kashyap Samhita. Whereas various recent research suggest that Lasuna has hypolipidemic, antifungal, antibacterial, antispasmodic, anti-inflammatory, Phyto estrogenic effect that's why it is very useful in PCOD, Pelvic inflammatory diseases, Dysmenorrhea, Infertility, PMS etc. Lasuna is certainly nectar for gynecological problems, which is mentioned in Ayurveda classics and significantly proved by modern scientific evidence also.

KEYWORDS: Ayurveda, Gynecological disorders, Herbs, Lasuna.

INTRODUCTION

The health of families and communities are tied to the health of women. Because of the many roles played by her during her whole life, but still focused on the health care of their family, while neglecting their own needs due to increasing workload, she faces lots of disorders that need to be timely diagnosed and cured to avoid major problems. The Ayurveda texts describe various Herbs and their formulations which are valuable for women to cure her gynecological problems such as menstrual irregularities, failure to conceive, early menopause and so on. Lasuna is one of them the most significant and a broadly utilized natural medication in different female issues. In Charaka Samhita and Susruta Samhita, Lasuna is mainly advocated in Vataja disorders.¹ Acharya Kashyapa depicted its numerous other restorative impacts in a separate chapter called "Lasunakalpaadhyaya".² A separate chapter has been attributed to explain the benefit of Lasuna as Aahara, Aushadi and Rasayana drug. In this study Lasuna is reviewed through ancient texts, modern science data & discussed with respect to indications, chemical constitutes and uses.

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This is a review study. Textual materials are used for the study from which various references have been collected from ancient texts, research articles and journals. In Sanskrit, Garlic is commonly known as Lasuna or Rasona, botanically known as *Allium sativum* is a member of the Liliaceae family. In addition to culinary uses, Lasuna is popular remedy for various disorders.

There are five tastes in Lasuna except sour taste. In this way without sour taste, it is called Rasona.³ It is also called Mahoushadha because of its great medicinal value.

Table 1: Ayurvedic Pharmacological Properties of Lasuna

Rasa	Amla Varjita Pancha Rasa, mainly Tikta and Madhura.
Guna	Snigdha, Tikshna, Pichchila, Guru, Sara
Virya	Ushna
Vipaka	Katu (Bhavaprakash) Madhura (Kashyapa Samhita)

Bhavaprakash and Kashyapa Samhita have depicted different Rasas in different parts of Lasuna.

Table 2: Ayurvedic Pharmacological Properties of Lasuna

Parts of Lasuna	Rasa According to Bhavprakash ⁴	Rasa According to Kashyapa Samhita ⁵
Moola	Katu	-
Patra	Tikta	Kashaya
Naala	Kashaya	Lavana, Tikta
Naalagra	Lavana	-
Beeja	Madhura	Katu

Pharmacological Properties of Lasuna According to Recent Scientific Review

Garlic are Antibacterial, Antifungal, Anti-inflammatory, Hypoglycemic, Anti-arthritis, Hypolipidemic, Anti-coagulant, Hypoproteinemic, Hypochloestermic, Anti-hypertensive, Fibrinolytic, Anti-diabetic, Anticancer, Anti-tumour, Anti-tubercular, Antioxidant, Anti-ageing, Cardioprotective.

Phytochemical Compounds ⁶

33 sulfur compounds (alliin, allicin, ajoene, allylpropyl, diallyl, trisulfide, sallylcysteine, vinylidithiines, Sallylmercaptocystein and others), several enzymes (allinase, peroxidases, myrosinase), minerals (germanium, calcium, copper, iron, phosphorus, 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 phenylalanine. Oligosaccharides, peptides, steroids, terpenoids, flavonoids, and phenols carbohydrates (sucrose and glucose).

Essential oil: DAS, DADS, diallyl trisulfide, methylallyl disulfide, methylallyl trisulfide, 2-vinyl-4H-1, 3-dithiin, 3- vinyl-4H-1, 2-dithiin, and ajoenes.

According to various texts of Ayurveda it can be said that Lasuna has got multiple properties which can be used for the treatment of various female ailments specially of Vatakaphaja predominance.

Table 3: The classical indication of Lasuna in different Samhitas for the clinical condition use

Samhita	Classical Indication of Lasuna	Used in Clinical condition
Charaka ⁸	Vataghna, Vrishya	Used in Infertility, Vataja disorders
Sushruta ⁹	Balya, Vrishya	Infertility, gynecological disorder due to malnutrition,
Vagbhata ¹⁰	Balya, Vrishya, Rasayana, Vatakaphagna	gynecological disorder due to malnutrition, Infertility
Kashyapa ¹¹	~Shukrashonitagarbhanama Jananama ~Na Patanti Stana ~Na Chainama Samprabaadhante Gramyadharmadhva ~Kati Shroni Anga Moolanama Na Jaatu Vasaga ~Na Jaatu Bandhya Bhavati na Jaatvapriyadarshana ~Puspareto Lasunanyaupyunjeeta	Used in delayed ageing, Menstrual disorders, diseases of reproductive region, infertility and diseases related with ovum, hormones and sperms.

As Lasuna is rich in various bioactive compounds so it can be used in multiple clinical conditions related to female reproductive system which are described in table below:

Table 4: The various bioactive compounds in Lasuna and its uses in clinical conditions

Pharmacological Activity	Bioactive Compound	Used in Clinical Condition
Antibacterial ¹²	Allicin	In UTI, bacterial infection of female reproductive tract
Antifungal ¹³	DADS (diallyl disulphide), DATS (diallyl trisulphide)	vulvovaginal candidiasis.
Antioxidant ¹⁴	Alliin, Allicin, DADS, DATS, DAS (diallyl sulphide)	Unexplained infertility, PCOD, in postmenopausal women
Anti-inflammatory ¹⁵	Allicin, DAS, Thiacremonone	PID, dysmenorrhea
Anti-cancer ¹⁶	Allicin, Alliin, DADS, DAS, Ajoene	Suppress the growth of Breast cancer
Immunomodulatory ¹⁷	Allicin	Infertility, PMS
Anti-obesity ¹⁸	Ajoene, 1,2- Vinylidithiin	PCOD, infertility
Antidiabetic ¹⁹	Allyl propyl disulphide, Allicin, Cysteine, sulfoxide and S-allyl cysteine sulfoxide, alliin	PCOD due to insulin resistant
Hypolipidemic ²⁰	Different garlic preparations	PCOD, infertility,
Antithrombotic ²¹	Different garlic preparations	Prevents the miscarriage

DISCUSSION

Acharya Charaka said that without vitiation of Vata, Yoni never gets impaired. Vata is the governing factor of the whole reproductive physiology. Lasuna is best remedy for Vataja disorders which has been rightly mentioned as nector for the women by Acharya Kashyapa as it has got multi-dimensional positive therapeutic effects over the health of the women. Lasuna possess Katu Pradhana Amla Varjitha Pancha Rasa which are known to act as Kaphavata Shamaka, hence it is useful in Vata Kaphaja female disorders. The Snigdha, Guru Guna of Lasuna pacify the Ruksha and Laghu Guna of Vardhitha Vata Dosha which leads to Vata Anulomana. The Ushna Virya also helps in controlling the Sheeta Guna of Vata and Kapha.

Mode of Action of Lasuna in Various Factors of Female Infertility: Garlic has been widely regarded as one of the top natural fertility enhancers. It is used as an aphrodisiac. It may be useful in various factors of infertility.

- **Tubal Factor:** Lasuna is useful in Aavaranjanya Vyadi. This will remove the obstruction due to its Teekshna, Ushna and Vatakaphahar properties. So, it may be useful in infertility caused by tubal obstruction.

- **Uterine Factor:** Lasuna has Balya, Brimhana and Rasayana properties which helps to regulate normal menstrual flow; thus, it enhances proper proliferation and increases quality of uterine receptivity so that correct further conception and implantation.
- **Ovulation Factor:** Lasuna has Deepana, Pachana, Vatanulomaka, Ushna property which enhance ovulation.
- **Cervical Factor:** Lasuna has antibacterial, antifungal property which cures cervical infection.

Mode of Action of Lasuna in Dysmenorrhea²²: Lasuna also has emmenagogue property due to its Ushna Virya and Katu, Tikta Rasas by which the flow of menstrual blood is made smooth and without any discomfort so it should be used in dysmenorrhea. Antispasmodic is one of the Garlic's actions. Antispasmodic are utilized to relieve or prevent spasms of the voluntary and involuntary by strengthening nerves and nerve system.

Mode of Action of Lasuna in Menstrual Disorders: Lasuna is known for its Ushna and Teekshna qualities as well as Pitta Vardhaka, by these qualities Agni will be stimulated which helps in digestion of Ama, formation of Ahara Rasa, which later on forms the Rasa Dhatu from which the Artava formed, which is

very effective in case of menstrual abnormalities. The constituents of Garlic make it helpful in menstrual disorders such as dysmenorrhea, premenstrual syndrome and also in situations after menopause.

Mode of Action of Lasuna in Vaginal Infection: Garlic has potent antifungal property; thus, it is effective against *Candida* species in vitro, is used by women with vulvovaginal candidiasis. It has bactericidal and fungicidal properties, able to kill or inhibit the growth of microorganisms that could be responsible for infections that cause vaginal irritation, vaginitis or vaginal discharge.

Mode of Action of Lasuna in UTI²³: Aqueous garlic extract have antibacterial property due to its allicin compound. Allicin, one of the active principles of freshly crushed garlic homogenates, has a variety of antimicrobial activities (due to its chemical reaction with thiol groups of various enzymes, e.g. alcohol dehydrogenase, thioredoxin reductase) and block the growth of bacteria to prevent UTI.

Mode of Action of Lasuna in Breast Cancer²⁴: Active compounds of Garlic like alliin, ajoene and allicin acts as anticancer agents. It suppresses the growth of human breast cancer cells. Garlic extract also reduces the side effects caused by anti-cancer agents. Thus, garlic and its compounds are promising candidates for breast cancer control.

Mode of Action of Lasuna in Obesity: Lasuna has got Kaphagna, Deepana-Pachana, Teekshna and Shrotoshodhaka properties due to which it reduces obesity and associated effects. A research study shows the anti-obesity and hypolipidemic effect of garlic, which is lowering the risk of obesity and complications associated with obesity.

Mode of Action of Lasuna in Lactation: Lasuna has Balya, Brimhana, Rasayana and Shrotosodhaka properties which enhance lactation.

Mode of Action of Lasuna in Menopause: It also helps in Rajonivrutti. The Karma of Lasuna such as Rasayana and Balya is very much indicated in Jaravastha and helps in preventing the long-term complications of senility. Much research shows that Garlic and extracts of garlic alliin, allyl cysteine, allyl disulfide, and allicin, through their antioxidant activities, have been reported to provide protection against free radical damage in the body. So, consumption of garlic in menopausal phase is very effective as it reduces oxidative stress in body and improve postmenopausal symptoms.

CONCLUSION

Lasuna is the unique contribution of Acharya Kashyapa by introducing Nectar like Rasayana drug to the women. Concluding all these studies, it can be accepted that Lasuna is a versatile drug for female body. Its Panchabhautik as well as chemical constitutions are beneficial for female throughout lifetime from Puberty to Post menopause., i.e., all stages of life in maintaining reproductive functions and rendering uneventful postmenopausal.

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How to cite this article:

Preeti Agarwal *et al.* A review on Lasuna (Garlic): A boon for women. J Pharm Sci Innov. 2021;10(1):13-16.
<http://dx.doi.org/10.7897/2277-4572.101197>

Source of support: Nil, Conflict of interest: None Declared

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