



E-ISSN: 2707-2835

P-ISSN: 2707-2827

www.pharmacognosyjournal.com

IJPLS 2024; 5(2): 13-17

Received: 08-04-2024

Accepted: 14-05-2024

Author's details are given
below the reference section

Nardostachys jatamansi play significant role in Insomnia

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DOI: <https://doi.org/10.33545/27072827.2024.v5.i2a.121>

Abstract

Nardostachys jatamansi is the only herbal medicine in the whole medical world which plays an important role in insomnia without any side effects. Jatamansi is a reputed medicine of ayurved medical science which proves to be very beneficial in mental disorders and insomnia, and it provides Quick relief in mental illness. According to ayurved medical science, jatamansi work's quickly in our body, provides adequate sleep and reduces mental disorders. Besides, jatamansi works well on our nervous system. And it also quickly cures the diseases caused by insomnia. Jatamansi mainly makes the functioning of our brain rhythmic and systematic and its continuous use not only increases the efficiency of the body but also increases brain power. According to ayurved medical science, the structure of jatamansi is exactly equivalent to the nerves of the nervous system, that is, we can say that the structure of jatamansi and the nervous system are similar. And the treatment is as per what it look like. Due to this principle, jatamansi works effectively on the nervous system. And it provides relief in mental diseases that is why jatamansi is one of the best herbal remedies for insomnia.

Keywords: Vaidhshiromani, Dheeraj Sharma, ayurveda, herbal, jatamansi, sleep, insomnia, mental health

Introduction

Ayurveda is the only safe medical science in the world. It contains many types of precious herbs which play an important role in building health. Herbs prove beneficial in making human life free from diseases. These herbs behave like a mother and provide relief from diseases quickly. For these reasons, Ayurveda is also called the blessing of nature and natural medical science. Jatamansi is an excellent medicine of ayurveda which proves beneficial in insomnia. Jatamansi is a herbal medicine which provides quick relief from insomnia without any side effects and also strengthens our nervous system, which also increases our work efficiency. Jatamansi not only cures insomnia but also cures the diseases caused due to insomnia and it also provides quick relief from mental disorders by streamlining the functioning of our brain. Jatamansi is the only herbal medicine in the medical world that provides quick relief from insomnia without any side effects because it works according to its active principle. Jatamansi is an excellent herbal medicine. It provides strength and nutrition to the nervous system of our body, due to which our health rate increases and immunity also becomes stronger. Jatamansi is a wonderful creation of nature. It proves to be beneficial for all living beings. We can use it without hesitation in children, adults and old people. It strengthens our nervous system, which helps us in getting good health. According to Ayurvedic medical science, the structure of spikenard is similar to the structure of our nerves, that is, spikenard and the nervous system show structural similarity, that is why the use of spikenard proves beneficial in the treatment of nerves or in the treatment of mental diseases.

Plant Distribution

Jatamansi consists of dried rhizome of *Nardostachys jatamansi* (Family- Valerianaceae), is an erect perennial herb, growing at an altitude of 3000- 5000 m, on the sub-alpine Himalayan

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Tracts ^[4]. *Jatamamsi* grows in moist and grassy slopes of India, Nepal, China and Bhutan ^[5].

Vernacular Names ^[6]

- **Sanskrit:** *Jatamamsi*
- **English:** Spikenard, Indian Nard, Musk root, Nardus root
- **Hindi:** *Balchar, Balchir, Baluchar, Jatalasi, Jatamansi, Kanuchara*
- **Gujarati:** *Jatamasi, Kalichad, Baalchad*
- **Bengali:** *Jatamamsi*
- **Kannada:** *Jatamamsi, Jatamavsi, Bhootajata, Ganagila maste.*
- **Malayalam:** *Jetamanshi, Manchi, Jatamanchi.*
- **Punjabi:** *Billilotan, Balchhar, Charguddi.*
- **Tamil:** *Jatamashi, Jatamanji*
- **Telugu:** *Jatam-imshi, Jatamamsi, Jatamsi*
- **Oriya:** *Jatmansii*
- **Marathi:** *Jatamavshi, Jataman*

Taxonomical Classification ^[7]

Kingdom: *Plantae* Division: *Tracheopyta* Class: *Magnoliopsida* Order: *Dipsacales* Family: *Valerianaceae*
Genus: *Nardostachys* Species: *N. jatamansi*
Latin name: *Nardostachys jatamansi* DC.

Botanical Description ^[8]

Morphology: It is an erect, perennial, aromatic herb. Plant height is 10-70 cm. Plant has long, woody greyish, rhizomatous, tail-like rootstock covered with reddish-brown hairs or tufted fibrous remains of the petioles of withered radical leaves.

Leaves

Radical leaves are 15-20x2.5cm, longitudinally nerved, glabrous, narrowed into the petiole. While cauline leaves 1 or 2 pairs, 2.5-7.5 cm, sessile, oblong or subovate.

Flowers

Flower is pale-white or pink coloured in terminal corymbose cymes.

Fruit

Fruit 4 mm long, covered with ascending white hairs. They are crowned by ovate, acute, dentate calyx teeth.

Flowering

June-July; Fruiting: September-October.



Ayurvedic Properties ^[9]

Rasa (taste) - *Tikta, Kashaya Guna* (qualities) - *Laghu Virya* (potency) - *Sheeta Vipaka* - *Katu Prabhava* - *Bootaghna (Manasdosahar) Doshaghnta* -

Tridoshashamaka

Part used- Rhizome

Chemical Constituents ^[10]

Actinidine, carotene, aristolens, calarene, calarene, elemol, droaristolene, b- udesmol, jatamols A & B, jatamansic acid, jatamansone, nardol, nardostachonol, nardostachone, seychellane, spiro jatamol, valeranal, valeranone, virolin, angelicin, jatamansin, jatamansinol, orosenol etc.

Medicinal Uses in Ayurveda Classics ^[11]

Karma: *Sheetala, Varnya, Vedanasthapana, Sangyasthapana, Medhya, Bhutaghna, Balya, Akshepashamana, Nidrajanana, Shamaka, Deepana, Pachana, Yakriduttejaka, Dahaprashamana, Anulomana, Shoolaprashamana, Hrid-balya, Raktabharaniyamaka, Vajikara, Pittasaraka, Artavajanana, Swedajanana, Kushthaghna, Nadibalya, Keshavardhana, Jwaraghna, Udveshthananirodhi, Mootrala, Mridurechana, Soumyanasyajanana.*

Traditional Uses ^[12]

Sannipatikavikara, Vatavyadhi, Shotha, Unmada, Murchha, Chitodvega, Manasavikara, Vismriti, Shoola, Daha, Visphota, Vranashotha, Varnavikara, Swedadhikya, Sweda-daugandhya, Apasmara, Apatantraka, Mastishka daurbalya, Shirahshoola, Kampavata, Nidranasha, Agnimandya, Anaha, Udarashoola, Amashayashotha, Chhardi, Kamala, Hridrava, Raktabharadhikya, Arsha, Hikka, Kasa, Shwasa, Mootrakrichchhra, Bastishotha, Klaibya, Pidotartava, Sadyovrana, Bhagna, Garbhashaya shotha, Twagvikara, Vatarakta, Visarpa, Daurbalya, Sannipatika jwara, Raktaprakopa, Bhrama, Dantashoola, Mukharoga, Mukhadaugandhya, Netraroga, Vishavikara, Ashmari, Kushtha, Bhootabadha.

Pharmacological Activities Hepatoprotective Activity ^[13]

Pre-treatment of rats with 800 mg/kg, per oral of 50% ethanolic root extract of *Nardostachys jatamansi*, significantly lowers the elevated levels of serum transaminases and alkaline phosphatase in thioacetamide induced Liver damage.

Antifungal and Antibacterial Activity ^[14]

Nardostachys jatamansi root extract when tested against *Saccharomyces cerevisiae, Aspergillus niger, Candida albicans, Streptococcus faecalis, Klebsiella pneumonia, Klebsiella pneumonia, Staphylococcus epidermidis* by dilution of agar by 500 ig/ml and 1000 ig/ml.

Cardio Protective Activity ^[15]

Nardostachys jatamansi root extract showed significant changes in antioxidant enzymes and lipid peroxidation levels in rats with myocardial damage that was demonstrated by elevated serum marker enzymes by Doxorubicin at the dose of 15 mg/kg, i.p. administered.

Hypolipidemic Activity ^[16]

Nardostachys jatamansi extract pre treatment at the dose of 500 mg/kg orally for a week in Doxorubicin induced rats at the dose of 15 mg/kg, i.p. administer, showed a significant drop in serum low density lipoproteins, very low density lipoproteins and rise in high density lipoproteins levels, resulting in alteration of serum and cardiac lipid

metabolizing enzymes.

Antidepressant Activity ^[17]

"*Nardostachys jatamansi* root extract at dose of 200 and 400 mg/kg, p. o. was compared with standard drug imipramine [10 mg/kg, p. o.] in normal and sleep deprived mice and it produced significant [$p < 0.001$] antidepressant like effect in both TST and FST and their efficacies were found to be comparable to imipramine at the dose of 10 mg/kg, p.o."

Antioxidant, Neuroprotective Activity and Stress Relieving Activity ^[18]

Wistar rats divided into four groups native, stressed, T-200 and T-500 stressed, with oral pre-treatment of *Nardostachys jatamansi* root extract 200 and 500 mg/kg, respectively showed potent antioxidant activity and significantly reversed stress-induced elevation of LPO and NO levels and decrease in catalase activity in brain.

Antiparkinson Activity ^[19]

Nardostachys jatamansi root extract used in rats at 200, 400 and 600 mg/kg for 3 weeks, dose-dependently restored increase in drug-induced rotations and decrease in locomotor activity and muscular coordination due to 6-OHDA [12 mg in 0.01% in ascorbic acid-saline] injections.

Anticonvulsant Activity ^[20]

Rats Pre-treated with phenytoin at doses of 12.5, 25, 50 and 75 mg/kg with 50 mg/kg of *Nardostachys jatamansi* root extract resulted in a significant increase in the protective index of phenytoin from 3.62 to 13.17, clearly demonstrated the synergistic action of both drugs.

Anti-hyperglycemic Effect/ Antidiabetic Activity ^[21]

Nardostachys jatamansi root extract used at 200 mg/kg, 800 mg/kg and 1200 mg/kg dose for 10 days, depict that 1200 mg/kg dose had significant antihyperglycemic effects as compared to disease model rats and no toxicity effect even at 3000 mg/kg dose.

Effect on Estrogen and Hair Growth ^[22]

Nardostachys jatamansi root extract was studied for the growth of hairs due to cancer treatment and showed hair growth promotion activities.

Anticancer Activity ^[23]

Nardostachys jatamansi root extract at 3 doses 50, 100, and 200 mg/kg, p.o for 7 days was administered to both young and aged mice and at 200 mg/kg dose it significantly improved learning and memory in young mice and reversed diazepam induced amnesia at 1mg/kg, i.p. and scopolamine 0.4mg/kg.

Nardostachys jatamansi root extract at 30 mg/ml and 100µg/ml explored for *in vitro* anti proliferative potential against two neuroblastoma human cancer cell lines using SRB assay and showed growth inhibition of 54% and 91% against IMR-32 and 45% and 82% against SKN- SH cancer cell lines respectively.

Radioprotective Activity ^[24]

Nardostachys jatamansi root extract was studied in swiss albino mice exposed to 6Gy in electron beam radiation (EBR). Survival assay was depicted lethal dose for EBR and

dose reduction factor (DRF) of *Jatamansi* extract was calculated by taking the ratio between LD50 of EBR with and without *Jatamansi* extract treatment.

Anti insomnia Activity ^[25]

Nardostachys jatamansi root powder showed anti insomnia activity, 2- 3gm amount of *jatamansi* giving BD by orally it play very important role in insomnia. By this method *jatamansi* stimulate the sleep, and it also reduce mental disorders and it increase the efficiency of the brain. We can also take 2 to 3 gm powder of *jatamansi* with Luke milk or Luke water.

Conclusion

On the basis of the above factors and reasons and clinical trials, it is proved that *Nardostachys Jatamansi* is the only problem-free sleep inducing herbal medicine in the entire medical science. It organizes the brain system and strengthens the nerves and also calms mental diseases. *Jatamansi* is a natural herb which is mainly beneficial in insomnia without any side effects.

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