



Review Article

JEEVANTI- A PROMISING RASAYANA FOR MATERNAL AND FETAL WELLBEING IN PREGNANCY

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ABSTRACT

Jeevanti is the drug having *Rasayana, Jeevaniya/vitalizer, Vaya Sthaapana, Vrishya, Stanyajanana, Balya, and Anulomana* properties. *Acharya Charaka* on the basis of its pharmacological action, and categorized under *Jeevaniya Gana, Madhura Skandha, vayasthapana, etc. Acharya Vagbhata* has clarified its uses during pregnancy in *Garbhini Paricharya*. Ayurveda, Vedic science considered this state as *Garbhini* and various Acharyas has given their very own rituals known as *Garbhini Paricharya*. It has been practiced and tested from century which deals with the both maternal and fetal wellbeing but evidence is the most important fact for today's era, hence, various drugs are being studied to know their efficacy and safety during pregnancy. *Rasayana* drugs have health restorative action which prevents *Garbhini* and *Garbha* from various infections and other complications. As well as, it improves strength of fetus by improving fetal nourishment through proper formation of *Rasa dhatu*. This conceptual study will put limelight on the importance of *Rasayana* drug i.e., *Jeevanti* in *Garbhini Paricharya* along with its benefits to fetal nourishment and maternal wellbeing.

INTRODUCTION

Ayurveda is science of life which main objective is to achieve optimal health and wellbeing with integrated approach involving mind, body, behavior and environment. Prevention and promotion of health, treatment of diseases with the use of herbs and herbal mixture like *Rasayana* used for rejuvenation, promotion of longevity, and slowing of aging process, different dietary recommendation make this system very scientific^[1]. Pregnancy is considered as crucial stage for every woman. Ayurveda has offered a special regimen of food and behavior during this period called *Garbhini Paricharya*^[2]. It has been practiced and tested from century which deals with the both maternal and fetal wellbeing.

Rasayana drugs have health restorative action which prevents *Garbhini* and *Garbha* from various infections and other complications. As well as, it improves strength of fetus by improving fetal nourishment through proper formation of *Rasa dhatu*^[3].

Acharya Sushruta says once embryo is formed, the growth is via nourishment of *Aahar rasa* and *Adhmana* of *Vaya*. Food taken by mother decides the physical and psychological constitution of child. (*Vridha Chanakya*). The diet which *Garbhini* consumes and *rasa* eventually formed is utilized for three purposes; nourishment of own body, formation of *Stanya*, nourishment of development of fetus^[4,5]. Therefore, fetus totally depends on *Aahar rasa* for its nourishment. *Rasavaha nadi* or mother is attached to *Garbhas nabhi nadi*, thus umbilical cord carries the essence of mothers *Ahar rasa* and fetus grows by its nourishment via *Upasneha*^[6].

Women who desire healthy- and good-looking progeny should not take un-congenial diet and regimen, she must adopt good conduct congenial diet of regimen^[7].

Rasayana helps in *Prasastha dhatu nirmana* which have nourishing effect, also due to *Madhura rasa*

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it regularizes maternal and fetal nutrition. *Madhura rasa* is *Ajanma Satmya*^[8], so Acharya Charaka recommends *Madhura* group of drugs throughout the pregnancy^[9]. Vagbhata also mentions the use of *Jeevaniya* groups of drugs which have *Rasayana* properties^[10]. During pregnancy, both *Dhatu* and *Oja* are depleted, so these drugs will impart *Virya*, *Bala*, *Varna* and provides immunity towards diseases, maternal and fetal health improvement, maintain internal environment of fetus, establish *Garbha*. *Rasayana* have effect like *Medha*, *Arogya*, *Dirghayu*, *Smirti*, *Varna*, *Vyadhikshematva*, *Prabha*, etc., so it possesses regenerative, immunomodulatory, antioxidant, detoxifying and apoptogenic action contributing to restoration of *Garbhini* Health by maintaining balances between mind, body, these drugs promote homeostasis and stabilize the physiological process during pregnancy. In *Garbhini Paricharya*, many drugs like *Shalaparni*, *Parushaka*, *Gokshura*, *Bala*, *Kharjura*, *Draksha*, *Shatavari*, *Ashwagandha*, *Jeevanti*, etc. are used. These drugs prevent many complications related to pregnancy such as; hypertension, gestational diabetes, recurrent abortion, infections and intrauterine growth retardation, etc^[3]. *Jeevanti* is one of the *Rasayana* drug explained in *Garbhini Paricharya*, which is very important and extensively used herbs in Ayurvedic medicine. *Charaka* considered it as the best wholesome vegetable (*Shrestha shaka*) to maintain good health. Based on the pharmacological action it is categorized under different groups like *Jeevaniya gana* (group of rejuvenating drugs), *Vayasthapan gana* (group of anti-ageing drugs), *Madhura skandhas* (group of drugs having sweet property), *Kakolyadi gana* and *Jeevniya Panchamula* by most of the classical texts^[11].

MATERIALS AND METHODS

A comprehensive review on the role of *Jeevanti* as a promising *Rasayana* drug for maternal and fetal wellbeing in pregnancy was carried out from classical texts of Ayurveda and was analyzed for the mode of action on the basis of reported research activities published in web- based search engines

RESULTS AND DISCUSSION

Jeevanti is known by following synonyms i.e., *Nagavalli* (creeper plant twin like a snake), *Arkapushpi* (flowers look like that of *Arka*), *Shrangati*, *Doda* (follicle are shortly like horn) *Jeevanti* (maintains healthy state) *Jeevaniya* (good tonic), *Balavardhini* (provides strength) etc. based on its characters and action^[11].

Jeevanti is the drug having *Rasayana*, *Jeevaniya/ vitalizer*, *Vaya Sthaapana*, *Vrishya*, *Stanyajanana*, *Balya*, and *Anulomana* properties^[12]. *Acharya Charaka* on the basis of its pharmacological action, and categorized under *Jeevaniya Gana*, *Madhura Skandha*, *Vayasthapan*^[11], etc. *Acharya Vagbhata* has clarified its uses during pregnancy in *Garbhini Paricharya*^[13]. Ayurveda, Vedic science considered this state as *Garbhini* and various Acharyas has given their very own rituals known as *Garbhini Paricharya*. It has been practiced and tested from century which deals with the both maternal and fetal wellbeing but evidence is the most important fact for today's era, hence, various drugs are being studied to know their efficacy and safety during pregnancy. *Rasayana* drugs have health restorative action which prevents *Garbhini* and *Garbha* from various infections and other complications. As well as, it improves strength of fetus by improving fetal nourishment through proper formation of *Rasa dhatu*^[3].

In *Charaka Samhita*, *Jeevanti* is classified under *Snehopaga gana*. *Swasharagana*, *Vayasthapan gana*, *shakavarga*, *Madhuraskandha*, likewise in *Sushruta Samhita* it is included in *Kakolyadi gana*, *Kashaya gana*, *Shakavarga*, furthermore in *Astangahridaya* it is stated under *Shakavarga*, *Jeevaniya Panchamula*, *Madhuraskandha*, *Jeevaniya gana*. Other texts like *Amarkosha* classifies it as *Vanaushadhi varga*, *Dravyaguna sangraha* as *Shakavarga*, *Dhanwantari Nighantu* as *Guduchyadi varga*^[14] etc. Botanical name of *Jeevanti* is *Leptadenia reticulata* (Retz.) Wight & Arn. (Apocynaceae). Presence of diverse bioactive compounds like α -amyrin, β -amyrin, ferulic acid, luteolin, diosmetin, rutin, β -sitosterol, stigmaterol, retuculin, deniculatin, leptaculatin^[15]. The properties of *Jeevanti* are tabulated as follow:

<i>Rasa</i>	<i>Madhura, Kashaya</i>
<i>Guna</i>	<i>Laghu, Snigdha</i>
<i>Veerya</i>	<i>Sheeta</i>
<i>Vipaaka</i>	<i>Madhura</i>
<i>Karma</i>	<i>Rasayana, Balya, Chakshuksya, Grahi, Vrishya, Brimhana, Stanyajana, Visaghna, Tridoshara</i> ^[16]

Therapeutic uses in *Atisaara* (diarrhea), *Daha* (burning sensation), *Jvara* (fever), *Kshaya* (pthisis), *Kasa* (cough), *Sosha* (cachexia), *Mukharoga* (disease of mouth), *Naktaandhya* (night blindness), *Netra Roga* (diseases of eye), *Raktapitta* (bleeding disorder), *Trishna* (thirst), *Vrana* (ulcer)^[16].

Jeevanti in Ayurveda texts as Rasayana for maternal and fetal well-being

Texts	Use in <i>Garbhini</i> as <i>Rasayana</i>
<i>Charaka Samhita</i>	Throughout the pregnancy <i>Madhura</i> group of drugs are given. <i>Balya, Rasayana</i> and <i>Stanyajanana</i> ^[17]
<i>Sushruta Samhita</i>	First three months <i>Garbhini Paricharya</i>
<i>Astangahridaya</i>	Throughout the pregnancy <i>Madhura</i> group of drugs are given
<i>Kaiyadev Nighantu</i>	<i>Madhura, Rasayana, Balya, Ayushya, Vrishya</i>
<i>Bhavaprakasha Nighanti</i>	<i>Rasayani, Balakari, Swadu</i>
<i>Raja Nighantu</i>	<i>Madhura, Veeryavivardhani</i>

Fetal growth and development started from the period of conception till delivery. The drug plays vital role in the health of both mother and fetus. Malnutrition during pregnancy can affect both mother and fetus in negative way.

Pharmacological Action of Jeevanti

Anti-abortifacient effect: Leptaden tablet (*L. reticulata* extract), experimental research in genie pigs using radioimmunoassay suggested that it inhibits f2 alfa biosynthesis thus prevents abortion and premature delivery. It has been also concluded that it helps treatment of threatened abortion^[15].

Anaphylactic activity: A animal experiment shows significant protection against the mast cell degranulation in sensitized animals^[18].

Estrogenic activity: *L. reticulata* possesses a significant estrogenic activity^[19].

Anti-bacterial activity: Extracts of *L. reticulata* have potent anti-bacterial activity against five gram positive, seven gram negative, and three fungal strains^[20].

Anti-oxidant activity: In vitro study of *L. reticulata* extracts shows prominent free radical scavenging activity against diphenyl-picryl-hydrazyl (DPPH), hydroxyl, and nitric oxide radicals^[21].

Anti-pyretic, Analgesic, and anti-inflammatory activity: An experiment in animal, whole plant solvent extract of *L. reticulata* is found to have significant reduction in the level of IL2, IL6, TNF -alpha in the serum of animals treated with ethyl acetate indicated the potential anti-inflammatory action of *Leptadenia reticulata*. It also shows significant anti-pyretic and analgesic effect in other animal models^[22].

Galactagogue Property: Leptaden (herbal formulation of *L. reticulata*) is found effective of new mother since it is potent galactagogue^[23].

Immunomodulatory action: Whole plant aqueous extract of *L. reticulata* is found to have protection against immunosuppression, likewise it has potential immunomodulatory and anti-oxidant activity^[24].

Epigenetics and Role of Jeevanti

Epigenetics is nowadays most discussed topic in field of alternative medicine because of its obvious

results in the research studies. Epigenetic regulation involves reversible changes in histones and DNA modifications that can be inherited without any changes in the DNA sequence. As a result of the environmental pollution, faulty lifestyle and increase in level of stress in pregnant women, fetal development is altered at the level of DNA methylation and hence the fetus is predisposed to various congenital malformations as well as genetic disorders^[25,26]. *Jeevanti* is rich in various types of natural flavonoids, like quercetin, Apigenin, Diosmetin, Luteolin, Rutin, Iso-quercetin, which are found very effective in preventing genetic expression of heart diseases, hypertension, diabetes mellitus and even cancer^[27,28]. Use of *Jeevanti* during pregnancy not only increase strength of mother and fetus but also prevent fetus from chromosomal abnormalities as well as remote possibilities of occurring lifestyle disorders by epigenetic programming.

CONCLUSION

Jeevanti, Leptadenia reticulata (Retz.) Wight & Arn. Is one of the *Rasayana* drug explained in *Garbhini Paricharya*. It is very important and extensively used herbs in Ayurvedic medicine. *Charaka* considered it as the best wholesome vegetable (*Shrestha shaka*) to maintain good health. *Jeevanti* is classified under *Snehopaga gana*. *Swasharagana, Vayasthapana gana, Shakavarga, Madhuraskandha*. It is found effective of new mother and child since it is potent galactagogue. *Rasayana* drug possesses regenerative, immunomodulatory, antioxidant, detoxifying and apoptogenic action contributing to restoration of *Garbhini* health. That's why use of *Jeevanti* as *Rasayana* drug for maternal and fetal well-being is important.

REFERENCES

- Sharma H, Chandola HM, Singh G, Basisht G. Utilization of Ayurveda in health care: an approach for prevention, health promotion, and treatment of disease. Part 1- Ayurveda, the science of life. J Altern Complement Med. 2007; 13(9): 1011-1019. doi:10.1089/acm.2007.7017-A
- Koppikar VS. *Garbhini Paricharya* (Regimen for the pregnant woman). Anc Sci Life. 2008; 28(1): 37-39.
- Dr. M. B. Pillewah DPKP. Significance of *Rasayana* Dravyas for *Garbha* Poshana- A review. World J Pharm

- Res. 2021; 6(1): 275-277.
4. PV S. Charak Samhita Shareer Sthana. In: Charak Samhita Text with English Translation. 9th ed. Chaukhamba Orientalia; 2005: Verse-23, Page no.
 5. Sushruta. Sharirasthana. In: Acharya YT, ed. Sushruta Samhita. 2013th ed. Chowkambha sanskrit samsthan, Varanasi; 2013: Verse 31, page no.
 6. Sushruta. Shareerasthana- 3. Garbhavakrantishariram. e-Samhita - Natl Inst Indian Med Herit. Published online 2022:1-2.
<https://niimh.nic.in/ebooks/esushruta/?mod=read>
 7. Charaka A. Sharirsthana. In: Tripathi DB, ed. Charaka Samhita. 2021st ed. Chaukhamba Surbharathi Prakashan, Varanasi; 2021: verse 8/21.
 8. Narendra D. Yadnik DKDS. Review on: Shadrasa. Herb Med Innov Res (EIJO - AHMIR) Einstein Int J Organ (EIJO. 2017; 2(1): 26-32.
 9. Sharma PV, ed. Sharira Sthana. In: Charak Samhita Text with English Translation. 9th ed. Chaukhamba Orientalia; 2005: Chapter 8, verse no. 32, vol-1, page no. 473.
 10. Vagbhata. Sharirsthana. In: E-Vagbhata - Institute of Ayurveda and Integrative Medicine (I-AIM). 2022: verse 41-43.
 11. Naik R, Acharya R. A Review on Therapeutic Potentials of "Jivanti" in Ayurveda. Anveshana Ayurveda Med J. 2016; Volume 1: 442-449.
 12. Sharma PV, ed. Sutra Sthana. In: Charak Samhita Text with English Translation. 9th ed. Chaukhamba Orientalia; 2005: Chapter 4, vol-1, Verse 9.1, Page no. 25.
 13. Kowsalya R, Jain A, Naik A.D SNA. Significance of Rasayana Dravyas for Garbha Poshana- A review. J Ayurvedic Herb Med. Published online 2020. doi:10.31254/jahm.2020.6109
 14. Bawra B, Dixit M, Chauhan NS, Dixit VK, Saraf DK. Leptadenia reticulata a Rasayana herbs: A review. Asian J Plant Sci. 2010; 9(6): 314-319.
 15. Mohanty SK, Swamy MK, Sinniah UR, Anuradha M. Leptadenia reticulata (Retz.) Wight & Arn. (Jivanti): Botanical, agronomical, phytochemical, pharmacological, and biotechnological aspects. Molecules. 2017; 22(6): 1-27.
 16. AYUSH MOH& FWDO. The Ayurvedic Pharmacopoeia Of India Government Of India. In: The Ayurvedic Pharmacopoeia Of India, Part I, Vol-Vi. First Edit. Ministry Of Health & Family Welfare Department Of Ayush; 2008. <http://naturalingredient.org/wp/wp-content/uploads/API-Vol-6.pdf>
 17. CCRAS (Central Council for Research in Ayurveda and Siddha). Jeevanti. In: Database On Medicinal Plants Used In Ayurveda Volume 2. First Edit. CCRAS (Central Council for Research in Ayurveda and Siddha); 2001:Page no. 271.
 18. Dhalani JM, Nariya PB. A Pharmacological Review: Leptadenia reticulata (Wight & Arn.); Jivanti: the Real Life Giving Plant. Folia Med (Plovdiv). 2017; 59(4).
 19. Rani S, Manavalan R, Kilimozhi D, Balamurugan K. Preliminary study on the anti - Implantation activity of Leptadenia reticulata in female rats. Int J PharmTech Res. Published online 2009.
 20. Vaghasiya Y, Chanda S V. Screening of methanol and acetone extracts of fourteen Indian medicinal plants for antimicrobial activity. Turkish J Biol. Published online 2007.
 21. Wakade A, Juvekar A, Hole R, Nachankar R, Kulkarni M. Antioxidant and cardioprotective effect of Leptadenia reticulata against adriamycin-induced myocardial oxidative damage in rat experiments. Planta Med. Published online 2007. doi:10.1055/s-2007-987223
 22. Sneha B, Ganga Raju M, Divya N. Evaluation of antipyretic and anti-inflammatory activity of Aqueous Extract of Leptadenia Reticulata in animal models. J Nat Remedies. Published online 2016. doi:10.18311/jnr/2016/468
 23. Anjaria J V., Gupta I. Studies on lactogenic property of Leptadenia reticulata (Jivanti) and leptaden tablets in goats, sheep, cows and buffaloes. Indian Vet J. Published online 1967.
 24. Pravansha S, Thippeswamy BS, Veerapur VP. Immunomodulatory and antioxidant effect of Leptadenia reticulata leaf extract in rodents: Possible modulation of cell and humoral immune response. Immunopharmacol Immunotoxicol. Published online 2012.
 25. Sharma H. Ayurveda: Science of life, genetics, and epigenetics. AYU (An Int Q J Res Ayurveda). 2016;37(2):87. doi:10.4103/ayu.ayu_220_16
 26. Zuccarello D, Sorrentino U, Brasson V, et al. Epigenetics of pregnancy: looking beyond the DNA code. J Assist Reprod Genet. 2022;39(4): 801-816.
 27. Fatima N, Baqri SSR, Bhattacharya A, et al. Role of Flavonoids as Epigenetic Modulators in Cancer Prevention and Therapy. Front Genet. 2021;12 (November): 1-17. doi:10.3389/fgene.2021.758733
 28. Mohanty SK, Swamy MK, Sinniah UR, Anuradha M. Leptadenia reticulata (Retz.) Wight & Arn. (Jivanti): Botanical, Agronomical, Phytochemical, Pharmacological, and Biotechnological Aspects. Molecules. 2017; 22(6): 1019.

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