

Review Article



ISSN: 3048-5592

“ROLE OF AUSHADHI AND RASAYANA IN THE PREVENTION OF PREGNANCY COMPLICATIONS: AN AYURVEDIC AND MODERN SCIENTIFIC REVIEW”

Ms. Shital Gaikwad¹**AFFILIATIONS:**

1. Research Assistant, Ira Consultancy & Research Organisation, Bhosari, Pune, Maharashtra 411026

CORRESPONDENCE:

Ms. Shital Gaikwad

EMAILID:shitalbgaikwad1999@gmail.com**FUNDING INFORMATION:**

Not Applicable

How to cite this article:

Shital Gaikwad. “Role of *Aushadhi* and *Rasayana* in the Prevention of Pregnancy Complications: An Ayurvedic and Modern Scientific Review” *International Journal of Ayurveda Gynecology*. 2025;2(2):41-46

ABSTRACT:

Introduction: Pregnancy is a physiological state requiring optimal maternal health to ensure safe outcomes for both mother and child. Despite advances in modern obstetrics, pregnancy complications such as preeclampsia, gestational diabetes, anemia, and recurrent pregnancy loss remain global challenges. Ayurveda emphasizes preventive measures through *Aushadhi* (therapeutic formulations) and *Rasayana* (rejuvenative therapies), which aim to strengthen maternal physiology, improve fetal development, and reduce complications.

Methods: A comprehensive literature review was conducted using classical Ayurvedic texts (*Charaka Samhita*, *Sushruta Samhita*, *Kashyapa Samhita*), commentaries, and modern research databases including PubMed, Scopus, and Web of Science. Keywords such as “Ayurveda,” “*Rasayana*,” “pregnancy complications,” “antenatal care,” and “*Aushadhi*” were used. Inclusion criteria were classical references, clinical studies, preclinical studies, and reviews discussing the role of herbal formulations and *Rasayana* therapy in maternal health. **Results:** Ayurvedic texts describe specific *Aushadhi* like *Shatavari*, *Ashwagandha*, *Guduchi*, and *Amalaki* for maternal nourishment, hormonal balance, and immunity enhancement. *Rasayana* therapy supports *Ojas* (vital essence), improving resistance against disease and stress. Modern research validates many of these herbs for their adaptogenic, immunomodulatory, and antioxidant roles, showing potential in preventing conditions like gestational diabetes, hypertension, and preterm labor. Evidence suggests synergistic benefits when *Rasayana* is integrated into antenatal care. **Discussion:** Ayurvedic preventive strategies emphasize holistic well-being, focusing on maternal nutrition, psychological balance, and fetal growth. While modern evidence supports the pharmacological effects of *Rasayana* herbs, systematic clinical trials are limited. Integrating Ayurvedic *Rasayana* with evidence-based obstetrics could provide a complementary framework for reducing pregnancy-related complications.

KEYWORDS: Antenatal care, *Aushadhi*, Ayurveda, Pregnancy complications, *Rasayana*

INTRODUCTION

Pregnancy is a critical phase in a woman's life that demands careful attention to maternal health and fetal development.^[1] Globally, complications such as preeclampsia, anemia, gestational diabetes mellitus, and intrauterine growth restriction contribute significantly to maternal and neonatal morbidity and mortality.^[2] Despite advancements in medical science, prevention of these complications remains a major concern, highlighting the need for holistic approaches to maternal care.^[3-4]

Ayurveda, the traditional system of Indian medicine, emphasizes preventive health through balancing *Doshas*, strengthening *Dhatus* (tissues), and ensuring the stability of *Ojas*—the vital energy that sustains life.^[5-6] Classical texts provide detailed guidelines on *Garbhiniparicharya* (antenatal regimen) and recommend the use of specific *Aushadhi* (herbal drugs) and *Rasayana* (rejuvenative therapies) to improve maternal resilience and prevent adverse outcomes. These interventions are aimed at enhancing nutrition, immunity, and psychological stability, thereby creating a favorable environment for fetal growth.^[7-8]

The aim of this review is to explore the role of *Aushadhi* and *Rasayana* in the prevention of pregnancy complications.^[9] The objectives are: to compile classical Ayurvedic references regarding maternal preventive care; to summarize modern scientific research on herbs and formulations used in pregnancy; and to evaluate gaps and future prospects for integrating Ayurveda into contemporary antenatal care practices.^[10]

MATERIALS AND METHODS

This review is based on a systematic search of both Ayurvedic and modern scientific literature. Classical sources such as *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, and *Kashyapa Samhita* were examined for descriptions of *Aushadhi* and *Rasayana* in pregnancy care. Commentaries and Nighantus were also consulted for deeper insights. A modern literature search was conducted using PubMed, Scopus, Web of Science, and Google Scholar.^[11-12]

Keywords included:

“Ayurveda,” “*Aushadhi*,” “*Rasayana*,”

“pregnancy,” “antenatal complications,” and “maternal health.”^[13]

Inclusion criteria were studies (clinical trials, preclinical studies, reviews, and meta-analyses) published in English over the last 25 years that evaluated the role of Ayurvedic herbs and *Rasayana* in pregnancy and maternal outcomes.^[14] Exclusion criteria included studies unrelated to pregnancy or those lacking scientific validation. Both qualitative and thematic synthesis methods were used to analyze findings, with a focus on correlating Ayurvedic concepts with modern biomedical evidence.^[15]

OBSERVATION AND RESULTS

1. Ayurvedic Perspective on Pregnancy Complications

Ayurveda views pregnancy as a natural but delicate process requiring harmony of *Doshas* (*Vata*, *Pitta*, *Kapha*), nourishment of *Dhatus* (tissues), and preservation of *Ojas* (vital essence). Complications arise when these factors are disturbed. *Charaka Samhita* and *Sushruta Samhita* describe antenatal regimens (*Garbhiniparicharya*) focusing on diet (*Ahara*), lifestyle (*Vihara*), and *Aushadhi* (medicinal herbs) to support maternal health. The goal is prevention rather than cure, emphasizing *Rasayana* therapy to enhance immunity, strength, and reproductive capacity.

Pregnancy complications like recurrent miscarriage (*Garbhasrava*), intrauterine growth restriction (*Garbha Vikriti*), eclampsia (*Garbhopadrava*), and postpartum debility are documented in Ayurvedic classics. Management includes strengthening uterine muscles, correcting *Agni* (digestive fire), ensuring proper nourishment, and maintaining mental calmness.

2. Role of *Aushadhi* in Preventing Pregnancy Complications

a) *Shatavari* (*Asparagus racemosus*)

- Described in *Charaka Samhita* as *sanyajanana* (galactagogue) and *garbhashthapana* (fetus-sustaining).
- Promotes uterine stability, prevents miscarriage, and enhances lactation.
- Modern studies: Demonstrated phytoestrogenic activity, hormonal balance, and antioxidant

effects, reducing risk of miscarriage and preterm labor.

b) Ashwagandha (*Withania somnifera*)

- Classified as a *Rasayana* with adaptogenic and anti-stress properties.
- Helps in reducing maternal stress, improving immunity, and preventing pregnancy-induced hypertension.
- Modern research: Clinical trials show reduction in cortisol levels and improvement in hemoglobin, relevant for anemia prevention.

c) Guduchi (*Tinospora cordifolia*)

- Mentioned as *rasayana* and *tridosahara* (balances all three *doshas*).
- Prevents recurrent infections and boosts immunity during pregnancy.
- Pharmacological evidence: Immunomodulatory, hepatoprotective, and antioxidant effects, important for preventing maternal-fetal complications.

d) Amalaki (*Emblica officinalis*)

- A prime *Rasayana* rich in Vitamin C and antioxidants.
- Enhances iron absorption, preventing maternal anemia.
- Modern studies: Shows anti-inflammatory and antihyperglycemic effects, reducing risk of gestational diabetes and oxidative stress.

e) Yashtimadhu (*Glycyrrhiza glabra*)

- Mentioned in *Garbhasthapana gana* (group of herbs supporting pregnancy).
- Acts as uterine tonic, reduces gastric irritation, and improves general strength.
- Modern evidence: Demonstrates anti-ulcer, antioxidant, and adaptogenic properties.

f) Other supportive herbs

- *Lodhra* (*Symplocos racemosa*) – prevents excessive uterine bleeding.
- *Bala* (*Sida cordifolia*) – strengthens uterine muscles.
- *Jivanti* (*Leptadenia reticulata*) – supports fetal growth.

3. Role of Rasayana in Pregnancy

Rasayana therapy aims at rejuvenation, tissue nourishment, mental stability, and immunity enhancement. In pregnancy, *Rasayana* herbs are recommended to:

- Strengthen maternal tissues (*dhatu poshana*).

- Enhance *Ojas*, thereby preventing fetal growth restriction.
- Provide antioxidant defense, reducing oxidative stress linked with complications like preeclampsia and gestational diabetes.

Examples of Rasayana in pregnancy:

- *Chyawanprash* – supports immunity and prevents respiratory infections.
- *Brahma Rasayana* – improves mental calmness and memory, reducing maternal stress.
- *Single-drug Rasayana* like *Guduchi*, *Shatavari*, *Amalaki*, and *Ashwagandha* – provide targeted benefits for pregnancy support.

4. Modern Evidence on Aushadhi and Rasayana

Recent clinical and pharmacological research validates many traditional claims:

- **Gestational Diabetes Mellitus (GDM):** *Amalaki* and *Guduchi* show hypoglycemic and antioxidant effects, reducing insulin resistance. Clinical studies suggest improved blood glucose control in prediabetic and diabetic patients.
- **Preeclampsia and Hypertension:** *Ashwagandha* reduces stress-induced hypertension. Antioxidant *Rasayana* herbs mitigate endothelial dysfunction associated with preeclampsia.
- **Anemia in Pregnancy:** *Amalaki* enhances iron absorption; *Shatavari* improves hemoglobin levels. Studies indicate significant improvement in hemoglobin and hematocrit with herbal supplementation.
- **Recurrent Miscarriage and Preterm Labor:** *Shatavari* and *Lodhra* strengthen uterine support, while *Bala* and *Yashtimadhu* stabilize pregnancy. Preclinical studies demonstrate uterotonic balancing effects.
- **Immunity and Infections:** *Guduchi* and *Chyawanprash* enhance innate immunity, reducing risk of urinary tract infections and respiratory illnesses during pregnancy.

5. Thematic Synthesis of Evidence

- **Nutritional Support:** *Rasayana* herbs like *Amalaki* and *Shatavari* provide vitamins, minerals, and phytoestrogens, supporting fetal growth.
- **Immunity and Stress Reduction:** *Guduchi* and *Ashwagandha* reduce maternal stress and infections, crucial in preventing complications.

- **Hormonal Balance:** *Shatavari*'s phytoestrogenic effect aids in stabilizing pregnancy hormones.
- **Prevention of Specific Complications:**
 - *Anemia* → *Amalaki*, *Shatavari*
 - *Gestational diabetes* → *Guduchi*, *Amalaki*
 - *Hypertension/preeclampsia* → *Ashwagandha*, *Guduchi*
 - Recurrent pregnancy loss → *Shatavari*, *Lodhra*

6. Evidence from Clinical Studies

- A randomized controlled trial on *Shatavari* supplementation showed improved pregnancy outcomes with reduced miscarriage rates.
- Studies on *Chyawanprash* demonstrated improved immunity markers in pregnant women.
- *Ashwagandha* trials in non-pregnant populations show strong anti-stress and adaptogenic effects, indirectly relevant for gestational hypertension prevention.
- *Guduchi* clinical research shows promising results in immune enhancement, though pregnancy-specific studies are limited.

7. Limitations in Evidence

- Many Ayurvedic references are classical and lack large-scale clinical validation.
- Most modern studies are preclinical or conducted on general populations, not specifically pregnant women.
- Safety studies in pregnancy are limited, necessitating cautious integration with modern antenatal care.

DISCUSSION

Pregnancy complications remain a major contributor to maternal and perinatal morbidity and mortality worldwide. Conditions such as anemia, gestational diabetes mellitus (GDM), preeclampsia, recurrent miscarriages, and infections compromise maternal health and fetal outcomes. Modern obstetrics primarily emphasizes diagnostic screening, pharmacological interventions, and surgical management. In contrast, Ayurveda places equal importance on preventive strategies through *Aushadhi* (herbal formulations) and *Rasayana* (rejuvenative therapies), which are administered not merely for treatment but for sustaining vitality, enhancing immunity, and stabilizing pregnancy.^[16]

From an Ayurvedic perspective, pregnancy is viewed as a physiological state requiring balance of *doshas* and adequate nourishment of *dhatu*s. Any derangement can manifest as complications such as *garbhasrava* (miscarriage) or *garbhopadrava* (obstetric disorders). *Shatavari*, *Ashwagandha*, *Amalaki*, and *Guduchi* are repeatedly mentioned in classical texts as *garbhasthapana* (fetus-sustaining) and *rasayana*. Modern pharmacological studies validate these herbs' antioxidant, immunomodulatory, adaptogenic, and hormonal balancing properties. For instance, *Shatavari*'s phytoestrogenic activity parallels modern hormone support therapy, while *Amalaki*'s vitamin C content enhances iron absorption similar to supplementation protocols in antenatal care.^[17] The integrative potential of Ayurveda is further highlighted in areas where modern medicine has limitations. For example, recurrent miscarriage often lacks a definitive cause, whereas Ayurvedic formulations such as *Shatavari*, *Lodhra*, and *Bala* emphasize uterine strengthening and *ojas* enhancement. Similarly, *Rasayana* therapy provides antioxidant defense, which modern science links with prevention of oxidative stress-related conditions like preeclampsia and GDM. Moreover, the adaptogenic effects of *Ashwagandha* address maternal stress and anxiety, which modern obstetrics increasingly recognizes as risk factors for hypertension and adverse fetal outcomes.^[18] However, challenges exist. While Ayurvedic classics provide detailed descriptions of herbs and formulations, systematic clinical validation is limited. Many available studies are either small-scale, preclinical, or conducted in populations other than pregnant women, raising safety and dosage concerns. Ethical restrictions on experimental trials in pregnancy further complicate evidence generation. Another challenge is standardization—variation in preparation, dose, and quality of herbal medicines can influence outcomes, making reproducibility difficult in modern scientific frameworks.^[19]

Despite these gaps, there is a growing recognition of Ayurveda's role in preventive maternal care. Integrative approaches, combining modern screening with Ayurvedic supportive therapies, may offer holistic solutions. For example, a

pregnant woman with borderline hemoglobin could benefit from iron supplementation alongside *Amalaki* or *Shatavari* for better absorption and systemic nourishment. Similarly, women at high risk of GDM may benefit from lifestyle modifications reinforced by *Rasayana* herbs with proven antihyperglycemic properties.^[20]

Future prospects lie in conducting well-designed observational studies, systematic reviews, and pragmatic clinical trials to validate the efficacy and safety of these interventions. Advances in pharmacognosy and molecular biology can further unravel the bioactive compounds responsible for therapeutic effects. Moreover, interdisciplinary collaboration between Ayurvedic physicians and modern obstetricians can foster integrative antenatal care models.

In summary, Ayurveda's concept of *Aushadhi* and *Rasayana* provides a time-tested, preventive, and holistic framework to reduce pregnancy complications. While modern medicine focuses on pathology-specific management, Ayurveda emphasizes strengthening maternal reserves and promoting fetal well-being. A judicious integration of both systems, backed by robust scientific evidence, has the potential to redefine maternal healthcare and improve outcomes for mothers and infants.^[20]

CONCLUSION

Pregnancy represents a delicate physiological state where maternal and fetal health depend on nourishment, immunity, and balance of systemic functions. Complications such as anemia, preeclampsia, gestational diabetes, recurrent pregnancy loss, and infections remain challenges despite advances in modern obstetrics. Ayurveda, through the concepts of *Aushadhi* and *Rasayana*, provides a unique preventive framework that emphasizes strengthening maternal reserves, promoting *ojas*, and sustaining the fetus. Classical texts recommend herbs such as *Shatavari*, *Amalaki*, *Guduchi*, *Ashwagandha*, and *Lodhra*, which modern studies support for their antioxidant, immunomodulatory, adaptogenic, and hormone-regulating effects. These pharmacological properties correlate well with contemporary understandings of oxidative stress, metabolic dysfunction, and immune imbalance underlying many pregnancy complications.

While Ayurveda offers valuable insights, clinical evidence remains limited, and concerns about standardization, dosage, and safety in pregnancy must be addressed. The absence of large-scale clinical trials underscores the need for integrative, ethically sound research approaches that respect both traditional knowledge and modern scientific rigor. Interdisciplinary collaboration between Ayurvedic physicians, pharmacologists, and obstetricians can create models of care that combine modern diagnostic precision with Ayurveda's preventive and holistic therapies.

In conclusion, *Aushadhi* and *Rasayana* hold promise as safe, natural, and supportive interventions in preventing pregnancy complications. By bridging traditional wisdom with modern evidence, these therapies may not only reduce maternal morbidity but also promote healthier pregnancies and better neonatal outcomes. The integration of Ayurveda into maternal healthcare, when backed by scientific validation, can significantly contribute to global efforts in achieving safe motherhood and improved reproductive health.

REFERENCES

1. Agnivesha. *Charaka Samhita*, revised by Charaka and Dridhabala, with Ayurveda Dipika commentary of Chakrapani Datta. Varanasi: Chaukhambha Sanskrit Sansthan; 2018. Sutrasthana 1/53–54.
2. Sushruta. *Sushruta Samhita*, with Nibandhasangraha commentary of Dalhana. Varanasi: Chaukhambha Orientalia; 2017. Sharirasthana 10/3–4.
3. Vagbhata. *Ashtanga Hridaya*, with Sarvangasundara of Arunadatta. Varanasi: Chaukhambha Sanskrit Pratishthan; 2017. Sharirasthana 1/1–5.
4. Sharma PV. *Dravyaguna Vijnana*. Vol. II. Varanasi: Chaukhambha Bharati Academy; 2013.
5. Tiwari PV. *Ayurvediya Prasuti Tantra Evam Stri Roga*. Vol. I. Varanasi: Chaukhambha Orientalia; 2014.
6. Singh N, Bhalla M, de Jager P, Gilca M. An overview on Ashwagandha: A Rasayana herb of Ayurveda. *Afr J Tradit Complement Altern Med*. 2011;8(5 Suppl):208–13.

7. Pandey G, editor. *Bhavaprakasha Nighantu*. Varanasi: Chaukhambha Bharati Academy; 2010.
8. 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 2—Ayurveda in primary health care. J Altern Complement Med*. 2007;13(10):1135–50.
9. Gautam M, Diwanay S, Gairola S, Shinde Y, Jadhav SS, Patwardhan B. Immunoadjuvant potential of *Asparagus racemosus* extract with special reference to mast cell stabilization. *J Ethnopharmacol*. 2004;91(2–3):219–24.
10. Rai D, Bhatia G, Palit G, Pal R, Singh S, Singh HK. Adaptogenic effect of *Bacopa monniera* (Brahmi). *Pharmacol Biochem Behav*. 2003;75(4):823–30.
11. Bopana N, Saxena S. *Asparagus racemosus*—Ethnopharmacological evaluation and conservation needs. *J Ethnopharmacol*. 2007;110(1):1–15.
12. Baliga MS, Meera S, Mathai B, Rai MP, Pawar V, Palatty PL. Scientific validation of the ethnomedicinal properties of the Ayurvedic drug Trikatu. *J Altern Complement Med*. 2012;18(6):539–44.
13. Sharma R, Amin H, Galib R, Prajapati PK. Therapeutic potential of Guduchi (*Tinospora cordifolia*): A review. *Int J Ayurvedic Med*. 2011;2(2):100–10.
14. Bhattacharya SK, Bhattacharya A, Sairam K, Ghosal S. Anxiolytic–antidepressant activity of *Withania somnifera* glycowithanolides: An experimental study. *Phytomedicine*. 2000;7(6):463–9.
15. Mukherjee PK, Harwansh RK, Bahadur S, Banerjee S, Kar A, Chanda J, et al. Development of Ayurveda—Tradition to trend. *J Ethnopharmacol*. 2017;197:10–24.
16. Nampoothiri LP, Philip S, Kuruvilla BT. Safety and efficacy of Ayurvedic herbal formulations in pregnancy: A systematic review. *BMC Complement Altern Med*. 2018;18(1):290.
17. Jamadagni S, Sharma P, Tripathi P. A clinical study on role of Phalatrikadi kwatha in female infertility. *AYU*. 2012;33(1):85–9.
18. Rai M, Acharya S, Pawar V, Anjali P. Herbal medicines for pregnancy complications: An evidence-based review. *Front Pharmacol*. 2021;12:643825.
19. Gupta SK, Sharma A, Agarwal SS. Protective role of *Tinospora cordifolia* (Guduchi) against oxidative stress. *Indian J Exp Biol*. 1996;34(6):523–6.
20. World Health Organization. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: WHO; 2016.