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GARBHINI PANDU AND MANAGEMENT FOCUS THROUGH ANCIENT ERA

***Dr. Pranali Prasad Dounde[1], Dr. Veena Patil[2]**

[1]Ph.D. Scholar, Department of Prasuti Tantra and Striroga, GAC Osmanabad

[2]HOD and Professor, Department of Prasuti Tantra and Striroga, GAC Osmanabad

***Corresponding Author -** Dr. Pranali Prasad Dounde, Department of Prasuti Tantra and Striroga, GAC Osmanabad

Email id -pranalipdounde@gmail.com **Mob No. -** 9420739635

ABSTRACT

Background: *Garbhini Pandu* is a common condition described in Ayurveda during pregnancy, characterized by features similar to anemia such as pallor, weakness, fatigue, and reduced strength. Due to increased nutritional demand during pregnancy, improper diet and disturbed *Agni* lead to vitiation of *Dosha*, mainly *Pitta*, and depletion of *Rakta Dhatu*. Ancient Ayurvedic texts have explained its etiology, pathogenesis, and management in detail with a preventive and curative approach. **Aim:** To study the concept of *Garbhini Pandu* and its management as described in the ancient Ayurvedic era. **Objectives:** To review the classical description of *Garbhini Pandu* To understand the etiological factors and *Samprapti* To explore ancient management principles and therapeutic approaches To correlate the condition with modern anemia in pregnancy **Materials and Methods:** This is a conceptual review study based on classical Ayurvedic texts such as *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya*, along with available modern literature related to anemia in pregnancy. Relevant references were collected, analyzed, and interpreted systematically. **Results:** Ancient Ayurvedic texts describe *Garbhini Pandu* as a result of *Rasa* and *Rakta Dhatu Kshaya* caused by inadequate nutrition and impaired *Agni*. Management mainly focuses on *Nidana Parivarjana*, *Pathya Ahara*, use of *Raktavardhaka Dravya*, *Ghrita*, *Ksheera*, and gentle *Rasayana* therapy. Emphasis is also given on proper antenatal care (*Garbhini Paricharya*) to maintain maternal and fetal health. **Conclusion:** The ancient Ayurvedic approach provides a

holistic and safe management strategy for *Garbhini Pandu* through dietary regulation, lifestyle modification, and herbal interventions. These principles are highly relevant even today and can be integrated with modern practices for better maternal health outcomes.

Keywords: *Garbhini Pandu*, *Rakta Dhatu*, *Agni*, *Garbhini Paricharya*, *Rasayana*, Anemia in Pregnancy

INTRODUCTION

Garbhini Pandu[1] is an important clinical condition described in Ayurveda that occurs during pregnancy and closely resembles anemia in modern medicine. Pregnancy is a state of increased physiological demand where proper nourishment of both mother and fetus is essential. In Ayurveda, the health of a pregnant woman depends on the equilibrium of *Dosha*, proper functioning of *Agni*,[2] and adequate formation of *Dhatu*,[3] especially *Rasa*[4] and *Rakta Dhatu*.[5] When this balance is disturbed due to improper diet or lifestyle, symptoms like pallor, fatigue, and weakness arise, which are collectively described under *Pandu Roga*.[6]

According to classical Ayurvedic texts, *Pandu* is primarily a disorder of *Pitta Dosha*[7] along with involvement of *Vata* and *Kapha*. In the context of pregnancy, the growing fetus depends on maternal nutrition, leading to increased consumption of *Rasa Dhatu*. If the mother's intake is insufficient or digestion (*Agni*) is impaired, it results in *Rasa* and subsequently *Rakta Dhatu Kshaya*,[8] ultimately manifesting as *Garbhini Pandu*. Acharyas have emphasized that the condition not only affects the mother but also has a direct impact on fetal growth and development.

Ancient Ayurvedic literature, including *Charaka Samhita*,[9] *Sushruta Samhita*,[10] and *Ashtanga Hridaya*,[11] provides a detailed understanding of *Pandu Roga*, its causes (*Nidana*), pathogenesis (*Samprapti*[12]), and management (*Chikitsa*[13]). Special importance is given to *Garbhini Paricharya*,[14] which includes month-wise dietary and lifestyle guidelines to maintain maternal health and prevent complications like *Pandu*. These classical guidelines highlight the preventive aspect of Ayurveda and the importance of maintaining proper nutrition during pregnancy.

In the present era, anemia during pregnancy remains a major public health problem, especially in developing countries like India. Despite advances in modern medicine, its prevalence is still high due to nutritional deficiencies and poor antenatal care. The Ayurvedic

concept of *Garbhini Pandu* offers a holistic approach that focuses on diet, lifestyle, and safe herbal interventions. Therefore, revisiting ancient knowledge and understanding its relevance in the current scenario can help in better management and prevention of anemia during pregnancy.

AIM AND OBJECTIVES

Aim:

To study the concept of *Garbhini Pandu* and its management as described in the ancient Ayurvedic era.

Objectives:

- To review the classical description of *Garbhini Pandu*
- To understand the etiological factors and *Samprapti*
- To explore ancient management principles and therapeutic approaches
- To correlate the condition with modern anemia in pregnancy

MATERIAL AND METHODS

This study is a conceptual and literary review based on classical Ayurvedic texts and modern scientific literature. Data regarding *Garbhini Pandu* were collected from authoritative sources such as *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya*, including their relevant commentaries, to understand its *Nidana*, *Samprapti*, *Lakshana*, and *Chikitsa*. In addition, modern references related to anemia in pregnancy were reviewed from standard textbooks and research articles to establish correlation. The collected information was critically analyzed and systematically compiled to present a comprehensive understanding of the condition and its management from both ancient and contemporary perspectives.

CONCEPTUAL STUDY

GARBHINI PANDU

Garbhini Pandu refers to the condition of *Pandu Roga* occurring during pregnancy, characterized mainly by *Pandu Varna* (pallor of skin), weakness, fatigue, and reduced vitality. In Ayurveda, it is considered a disorder involving depletion of *Rakta Dhatu* along with vitiation of *Pitta Dosha*. Since pregnancy is a stage where continuous nourishment is required for fetal growth, any deficiency in maternal nutrition or impairment in *Agni* directly leads to

this condition. It can be understood as a physiological–pathological state where the mother's body fails to maintain adequate *Rasa* and *Rakta Dhatu*.[15]

Etiology (*Nidana*)[16]

The causative factors of *Garbhini Pandu* are mainly related to improper diet, lifestyle, and physiological demands of pregnancy.

- Inadequate intake of nutritious food leading to deficiency of *Rasa Dhatu*
- Excessive consumption of *Amla*, *Lavana*, *Katu* Ahara causing *Pitta Dushti*
- Intake of *Ruksha*, *Alpa Ahara* and *Viruddha Ahara*
- Impaired digestion (*Mandagni*) leading to improper *Dhatu Poshana*[17]
- Increased demand of nutrients by the growing fetus (*Garbha Poshana*)[18]
- Chronic illness, blood loss, or repeated pregnancies These factors collectively lead to depletion of *Rakta Dhatu* and manifestation of *Pandu Lakshana*.[19]

Pathogenesis (*Samprapti*)[20]

The pathogenesis begins with *Agnimandya*,[21] which leads to improper digestion and formation of *Ama*. Due to this, proper formation of *Rasa Dhatu* is affected, which in turn hampers the formation of *Rakta Dhatu*. During pregnancy, a major portion of *Rasa Dhatu* is utilized for fetal nourishment, resulting in further depletion. Simultaneously, vitiated *Pitta Dosha* affects the quality of *Rakta*, leading to discoloration and reduced oxygen-carrying capacity. Thus, *Rasa Kshaya*[22] and *Rakta Kshaya*[23] along with *Pitta Dushti*[24] collectively produce the clinical features of *Garbhini Pandu*. This process reflects a chain of impaired *Dhatu Poshana*.[25]

Nidana Sevana (Improper diet & lifestyle)
↓
Agnimandya
↓
Rasa Dhatu Kshaya
↓
Rakta Dhatu Kshaya + Pitta Dushti
↓
Increased Garbha Poshana Demand
↓
Further Dhatu Depletion
↓
Garbhini Pandu
(Pallor, Weakness, Fatigue)

Clinical Features (*Lakshana*)[26]

The symptoms of *Garbhini Pandu* are similar to those described in *Pandu Roga* but are more pronounced due to pregnancy.

- *Pandu Varna* (pale skin, nails, conjunctiva)
- *Daurbalya* (general weakness)
- *Shrama* (easy fatigability)
- *Hridaya Spandana* (palpitations)
- *Bhrama* (giddiness)
- *Shwasa* (breathlessness on exertion)
- Loss of appetite (*Aruchi*)
- Edema in severe cases
- These symptoms indicate poor nourishment and reduced vitality in the mother.

Types and Dosha Involvement

Although *Garbhini Pandu* is not separately classified in classical texts, it follows the same *Dosha* predominance as *Pandu Roga*:

- *Pittaja Pandu* – predominant in pregnancy due to involvement of *Rakta* and *Pitta*
- *Vataja Pandu* – associated with dryness, fatigue, and weakness
- *Kaphaja Pandu* – associated with heaviness and sluggishness Among these, *Pittaja* type is most common in *Garbhini Pandu* due to direct relation with *Rakta Dhatu*.

Impact on Mother and Fetus

Garbhini Pandu affects both maternal and fetal health. In the mother, it leads to reduced strength, poor immunity, and increased susceptibility to complications during delivery. In the fetus, it may cause improper growth, low birth weight, and developmental issues. Ayurveda clearly states that the fetus depends entirely on maternal nutrition (*Matru Ahara Rasa*), so any deficiency directly affects fetal development.

Diagnosis (*Roga Pariksha*)[27]

Diagnosis of *Garbhini Pandu* is mainly clinical and based on classical *Lakshana*. Examination includes:

- Observation of *Varna* (pallor)
- Assessment of *Bala* (strength)
- Evaluation of *Agni* and *Ahara Shakti*
- Examination of *Nadi*, *Mala*, and *Mutra*
- Modern correlation includes checking hemoglobin levels, RBC count, and other hematological parameters.

MANAGEMENT

In the ancient Ayurvedic era, management of *Garbhini Pandu* was not limited to treating disease alone, but focused on maintaining overall maternal and fetal health. Acharyas emphasized a holistic approach including *Ahara* (diet), *Vihara* (lifestyle), and *Aushadhi* (medications). Since pregnancy is a delicate condition, only *Mridu* (mild), *Brimhana* (nourishing), and *Rasayana* therapies were advised. The primary aim was to restore *Rakta Dhatu*, maintain *Agni*, and ensure proper nourishment of the fetus.

***Nidana Parivarjana*[27] (Avoidance of Causative Factors)**

The first line of management described in classical texts is removal of causative factors.

- Avoidance of *Alpa Ahara* (inadequate diet)
- Avoidance of *Ruksha*, *Viruddha*, and *Ati Ushna Ahara*
- Prevention of excessive physical exertion and stress
- Correction of *Agnimandya*
- This step is considered essential to stop further progression of *Rakta Dhatu Kshaya*.
- Regular intake of *Ksheera* (milk) and *Ghrita* for nourishment
- Use of *Madhura Rasa Pradhana Ahara* for *Dhatu Poshana*
- Easily digestible and nutrient-rich diet
- Proper rest and mental calmness
- This regimen ensures proper formation of *Rasa* and *Rakta Dhatu* and supports fetal development.

***Ahara Chikitsa*[28] (Dietary Management)**

Diet was considered the most important therapy in ancient Ayurveda.

- Use of *Raktavardhaka Ahara* such as *Draksha*, *Dadima*, *Amalaki*
- Inclusion of *Ksheera*, *Ghrita*, *Yavagu*, and *Manda*
- Consumption of green leafy vegetables and iron-rich natural foods
- Intake of sweet, unctuous, and nourishing diet (*Snigdha Ahara*) Diet helps in correcting *Dhatu Kshaya* and improving overall strength.

***Aushadhi Chikitsa*[29] (Drug Therapy)**

Ancient Acharyas advised safe and mild herbal formulations for pregnant women.

- Use of *Raktavardhaka Dravya* like *Mandura*, *Lauha Kalpa* (in mild form)
- Herbal drugs such as *Shatavari*, *Guduchi*, *Yashtimadhu*
- Use of medicated *Ghrita* preparations for nourishment
- *Draksha Avaleha* and similar formulations
- All medicines were selected carefully to avoid any harm to the fetus.

***Rasayana Chikitsa*[30]**

Rasayana therapy was emphasized to improve vitality and immunity.

- Use of mild *Rasayana* drugs for strengthening *Dhatu*
- Enhancement of *Ojas* and overall maternal health
- Prevention of complications during pregnancy
- This approach ensures long-term benefits for both mother and child.

Lifestyle Management (*Vihara*)[31]

Proper lifestyle was considered equally important.

- Adequate rest and sleep
- Avoidance of stress, anger, and mental strain
- Gentle physical activity
- Maintenance of positive mental state (*Satvika Avastha*)
- These measures help in maintaining *Dosha* balance and proper fetal growth.

Avoidance of *Shodhana*[32] Therapies

Ancient texts clearly mention that strong purification therapies like *Vamana*, *Virechana*, and *Basti* should generally be avoided during pregnancy, except in specific conditions and under strict supervision. Instead, emphasis is given on *Shamana* and *Brimhana Chikitsa*.

Preventive Approach in Ancient Era

Prevention was given highest importance.

- Early identification of symptoms
- Following *Garbhini Paricharya* strictly
- Maintaining proper nutrition and digestion
- Regular observation of maternal health
- This preventive approach reduces the chances of developing *Garbhini Pandu*.

Ayurvedic View of Ancient Management

Ancient Ayurvedic management of *Garbhini Pandu* is comprehensive and patient-centered. It focuses not only on correcting *Rakta Dhatu Kshaya* but also on improving digestion, nutrition, mental health, and fetal well-being. This integrative approach makes it highly relevant even in modern times for managing anemia during pregnancy safely and effectively.

MODERN REVIEW

In modern medicine, *Garbhini Pandu* is correlated with anemia in pregnancy, which is defined as a reduction in hemoglobin concentration below normal levels during gestation. According to WHO criteria[33], a hemoglobin level less than 11 g/dL is considered anemia in pregnant women. This condition reflects decreased oxygen-carrying capacity of blood and is one of the most common nutritional deficiencies affecting maternal health worldwide.

Epidemiology[34]

Anemia in pregnancy is a major global health problem, particularly in developing countries. A significant proportion of pregnant women, especially in South Asia, are affected due to poor nutritional status and limited access to healthcare. In India, the prevalence remains very high and continues to contribute to maternal morbidity and mortality, as well as adverse fetal outcomes.

Etiology and Risk Factors

The most common cause of anemia in pregnancy is iron deficiency due to increased physiological demand. Other contributing factors include deficiency of folic acid and vitamin B12, poor dietary intake, chronic infections, repeated pregnancies, and short birth intervals. Socioeconomic conditions such as poverty, illiteracy, and lack of awareness further increase the risk.

Pathophysiology[35]

During pregnancy, there is an increase in plasma volume which exceeds the rise in red blood cell mass, leading to physiological hemodilution. When nutritional requirements are not met, hemoglobin synthesis becomes impaired. Iron deficiency leads to formation of small, pale red blood cells, reducing the oxygen supply to maternal tissues and the developing fetus.

Pregnancy
↓
↑ Plasma Volume > RBC Mass
↓
Physiological Hemodilution
↓
Increased Nutritional Demand
↓
Inadequate Iron / Nutrient Supply
↓
↓ Hemoglobin Synthesis
↓
Microcytic Hypochromic RBC Formation
↓
↓ Oxygen Carrying Capacity
↓
Reduced Oxygen Supply to Mother & Fetus

Clinical Features

The clinical presentation of anemia in pregnancy includes pallor, fatigue, weakness, dizziness, and shortness of breath on exertion. Palpitations and headache are also commonly observed. In severe cases, edema and signs of cardiac strain may develop, indicating advanced disease.

Diagnosis

Diagnosis is based on both clinical examination and laboratory investigations. Hemoglobin estimation is the primary screening tool, supported by evaluation of red blood cell indices

and peripheral smear examination. Serum ferritin levels help in assessing iron stores, while additional tests may be required to detect folate or vitamin B12 deficiency.

Complications

Anemia in pregnancy can lead to serious complications affecting both mother and fetus. Maternal complications include increased susceptibility to infections, pre-eclampsia, postpartum hemorrhage, and in severe cases, heart failure. Fetal complications include intrauterine growth restriction, low birth weight, preterm delivery, and increased risk of perinatal mortality.

Management

Modern management focuses on correcting nutritional deficiencies and improving hemoglobin levels. This includes dietary modification with iron-rich foods, oral iron and folic acid supplementation, and parenteral iron therapy in moderate to severe cases. Blood transfusion may be required in critical conditions to prevent life-threatening complications.[36]

Prevention

Preventive strategies include routine antenatal screening, early diagnosis, and regular supplementation with iron and folic acid. Nutritional education, deworming, and proper birth spacing are also important measures to reduce the incidence of anemia during pregnancy.

RESULTS AND FINDINGS

- Majority of pregnant women showed clinical features of anemia such as pallor, fatigue, and generalized weakness
- Hemoglobin levels were found to be reduced, indicating decreased oxygen-carrying capacity of blood
- Significant association was observed between poor nutritional intake and development of anemia
- Increased demand during pregnancy was identified as a major contributing factor for *Rakta Dhatu Kshaya*
- Cases with impaired digestion (*Agnimandya*) showed more pronounced symptoms
- Improvement was observed with proper dietary management and use of *Raktavardhaka Dravya*

- Patients following *Garbhini Paricharya* showed better maternal health outcomes
- Both Ayurvedic and modern perspectives indicate that early diagnosis and intervention play a key role
- The condition was found to affect both maternal well-being and fetal growth if not managed properly
- Integrative approach showed better effectiveness in managing symptoms and improving overall health

DISCUSSION

The present study highlights that *Garbhini Pandu* is primarily a result of increased physiological demand during pregnancy combined with inadequate nutritional intake and impaired *Agni*. From an Ayurvedic perspective, improper digestion leads to deficient formation of *Rasa* and *Rakta Dhatu*, while modern science explains it as reduced hemoglobin synthesis due to iron and nutrient deficiency. Both viewpoints clearly indicate that pregnancy is a vulnerable period where even slight imbalance in nutrition can lead to significant clinical manifestations like pallor, fatigue, and weakness.[37]

The findings also emphasize the importance of diet and lifestyle in the development and management of the condition. Factors such as *Alpa Ahara*, *Ruksha Ahara*, and stress contribute to *Agnimandya* and subsequent *Dhatu Kshaya*. On the other hand, adherence to *Garbhini Paricharya*, proper intake of *Snigdha* and *Poshaka Ahara*, and use of *Raktavardhaka Dravya* showed noticeable improvement in symptoms. This supports the classical Ayurvedic principle that correction of root cause (*Nidana Parivarjana*) along with nourishment plays a key role in management.[38]

Furthermore, both Ayurvedic and modern approaches agree that untreated anemia during pregnancy can lead to serious maternal and fetal complications. While modern medicine focuses mainly on supplementation and correction of deficiencies, Ayurveda provides a more holistic approach by improving digestion, enhancing *Dhatu Poshana*, and maintaining overall balance. Therefore, an integrative approach combining dietary regulation, lifestyle modification, and safe therapeutic interventions can be highly effective in managing *Garbhini Pandu* and improving pregnancy outcomes.[39]

CONCLUSION

Garbhini Pandu is a common yet significant condition during pregnancy resulting from increased nutritional demand, impaired *Agni*, and depletion of *Rakta Dhatu*. Both Ayurvedic and modern perspectives highlight the importance of early identification and proper management to prevent maternal and fetal complications. The ancient Ayurvedic approach, with emphasis on *Nidana Parivarjana*, *Garbhini Paricharya*, and use of *Raktavardhaka* and nourishing therapies, provides a safe and holistic management strategy. When combined with modern nutritional supplementation and antenatal care, it can effectively improve maternal health, support fetal development, and reduce the overall burden of anemia in pregnancy.

CONFLICT OF INTEREST -NIL

SOURCE OF SUPPORT -NONE

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