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Review Article

THE REVIEW OF *GARBHINI PANDU*(ANEMIA IN PREGNANCY) IN *AYURVEDA*.

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ABSTRACT:

Anemia during pregnancy is a global public health issue facing the world today, especially in the developing countries like India. Anemia in pregnancy is an important contributor to maternal mortality/morbidity as well as to the low birth weight which causes infant mortality. *Pandu* means pallor of the body which can be correlated with anemia of modern science. In *Ayurveda*, this anemia in pregnancy can be correlated with *Garbhini Pandu*.

In *Ayurveda*, *Garbhini Pandu* is not a separate *Vyadhi* but by taking the help of various references in the *Ayurvedic* classics, the concept of *Garbhini Pandu* in *Ayurveda* can be illustrated. Also the probable relation with pathophysiology of anemia in pregnancy can be done.

KEY WORDS: Anemia, pregnancy, *Pandu*, *Garbhini Pandu*.

INTRODUCTION:

Pregnancy is a mixed state of happiness, discomfort and anxiety in woman's life. In *Ayurveda*, woman is the centre of *Supraja Nirmiti*. In rural India, however the state of maternal health is abysmal. Both infant and maternal mortality is on rise. Lack of access to good healthcare and poverty are the prime culprits. While in urban India, most women working, work stress is affecting mother and child health. Maternal nutrition is compromised with faulty eating habits owing to work load, lack of sufficient minerals like calcium, iron and micronutrients.

Prevalence of anemia in pregnancy:

Anemia is one of the nutritional disorders in pregnancy. Anemia is the most common nutritional disorder in the world. WHO has

estimated that prevalence of anemia in developed and developing countries in pregnant women is 14% in developed and 51 % in developing countries and 65-75 % in India¹. Prevalence of anemia in South Asian countries is among the highest in the world. WHO estimates that even among the South Asian countries, India has highest prevalence of anemia. India contributes to about 80% of the maternal deaths due to anemia in South Asia². Anemia either directly or indirectly contributes to 20% maternal deaths in third world countries.

Need of the study:

Anemia in pregnancy can cause complications like preeclampsia, intercurrent infection, preterm labour during pregnancy.

During labour uterine inertia, postpartum haemorrhage and also shock can occur. In puerperal period there are increased chances of puerperal sepsis, poor lactation. Thus appropriate antenatal care regarding anemia can reduce maternal mortality by avoiding above complications³. Maternal anemia is associated with poor intrauterine growth and increased risk of preterm births and low birth rates. This in turn results in higher perinatal morbidity and mortality; and higher infant mortality rate. Intrauterine growth retardation and low birth weight inevitably lead to poor growth trajectory in infancy, childhood and adolescence and contribute to low adult height. Parental height and maternal weight are determinants of intrauterine growth and birth weight. Thus maternal anemia contributes to intergenerational cycle of poor growth in offsprings. Early detection and effective management of anemia in pregnancy can lead to substantial reduction in undernutrition in childhood, adolescence and improvement in adult height⁴. This is the need of the study of anemia in pregnancy.

Pandu in *Ayurveda* can be correlated with anemia. The description of *Garbhini Pandu* is not directly given in *Ayurvedic Samhitas*. So to elaborate the concept of *Garbhini Pandu* following points are illustrated.

Various references regarding *Garbhini Pandu* from ancient *Ayurvedic* texts are studied and applied as basic principles to create the foundation for the concept of *Garbhini Pandu*.

REVIEW OF LITERATURE:

Concept of *Garbhini Pandu*:

Vyutpatti (origin) of *Pandu shabda*-

The word *Pandu* is derived from *dhatu* Padi *Gatou* with ku Pratyaya. This root *Dhatu* belongs to 10th Gana. Meaning of the root *Dhatu* is to destroy (*Naasha*). *Pandu* denotes colour so meaning is to destroy natural colour (physiological colour of the skin-pink). Loss of this colouration leads to *Pandu vyadhi*.

In pregnancy *Rasa Dhatu* is increased quantitatively for nourishment of 3 factors i.e. *Garbhini*, *Garbha* and *Stana*.⁵ Because of this normal physiological changes dilution of *Rasa Dhatu* takes place. The abnormality of *Rasavaha Srotasa* (system related with *Rasa* tissue) will

affect the generation and nutrition of remaining six *Dhatu*s (*Rakta*, *Mamsa* etc.). It will lead to *Dhatu Kshaya* and *Dhatu Shaithilya*. *Garbhini Pandu* will cause intranatal complications like prolonged labour, PPH, death. In post natal phase, *Garbhini Pandu* will affect the formation of *stanya*; as it is a *Updhatu* of *Rasa Dhatu* and *Rasa* is already affected.⁶

Charaka stated that there is *Pitta* dominance in *Pandu Vyadhi*.⁷ While discussing *Masnumasik Garbha vrudhi* there is growth in uterus, muscle tissues in 5th month and this growth continues till 6th month. Therefore pregnant woman faces loss of strength and skin glow in 6th month and symptoms of loss of mainly *Rakta* and *Mamsa* can be observed. Hence there is *Balavarnahani* in 6th month of pregnancy.⁸ It can be considered as reference for *Garbhini Pandu*. Thus *Garbhini Pandu* can be correlated with anemia in pregnancy.

Ayurveda describes certain diseases, which are due to pregnant status of woman. These diseases are peculiar to pregnancy and are called as *Garbhopadrava*. According to *Harita*, *Garbhopadrava* are 1. *Shwasa*, 2. *Hrillasa*, 3. *Chardi*, 4. *Shohta*, 5. *Jwara*, 6. *Aruchi*, 7. *Atisara*, 8. *Vivarnata*.⁹

Vivarnata is the main symptom of *Garbhini Pandu*. Thus this concept of *Garbhopadrava* in *Harita Samhita* can be correlated as *Garbhini Pandu*.

Anemia in pregnancy manifests in *Rasavaha Srotasa* but shows disastrous effect on *Rasa* and *Rakta Dhatu* as well as whole body. *Rasavaha Srotasa* gets pressurized due to development of fetus. So there is obstruction in *Rasavaha srotasa* and generation of *Rasa Dhatu* does not take place properly and pregnant woman shows symptom of *Pandu* (anemia) This may be the probable *Samprapti* in *Garbhini Pandu*.¹⁰

Concept of Physiological Anemia in Pregnancy:¹¹

There is disproportionate increase in plasma volume, RBC volume and haemoglobin mass during pregnancy. In addition, there is marked demand of extra iron during pregnancy specially in the second half. Even an adequate diet cannot provide the extra iron demand. Thus there is always remains a physiological iron deficiency during state of pregnancy. As a result, there is not only a fall in haemoglobin concentration and

haematocrit value in the second half of pregnancy but there is also associated low serum iron, increased iron binding capacity and increased rate of iron absorption as found in iron deficiency anaemia.

Thus the fall in haemoglobin concentration during pregnancy is due to combined effect of haemodilution and negative iron balance. The anaemia is normocytic and normochromic in type.

Criteria of physiological anaemia-

The lower limit of physiological anaemia during the second half of pregnancy should fulfill the following haematological values -

- Hb-10gm%
- RBC-3.2 million /mm³
- PCV-32%
- Peripheral smear showing normal morphology of the RBC with central pallor.

DISCUSSION:

By reviewing these quotations, *samprapti* of *Garbhini Pandu* can be stated by following points-

- Dominance of *Pitta Dosha* in 2nd trimester increase the *Dravabhava* within *Rasa Dhatu*.
- The *Rasa Dhatu* will affect the next 6 *Dhatus* i.e. *Rakta Mamsa* etc.
- It will cause *Garbhini Pandu* and patient shows the symptoms of *Garbhini Pandu*.

As *Garbhini Pandu* is not directly described in Ayurvedic classics as a separate *Vyadhi*. But by giving different references in Ayurvedic *Samhitas* the concept of *Garbhini Pandu* can be illustrated easily.

According to modern literature, many organs undergo physiological changes during pregnancy. Due to the progesterone, motility and tone of stomach decreases. Haematological changes-blood volume increases, plasma volume increases which causes haemodilution which leads to physiological anemia in pregnancy.

Treatment aspect of *Garbhini Pandu*:

According to *Kashyapa*, *Garbhini* need not to be considered as a separate subject, so in *Garbhini Pandu*, *Nidana Panchak* and *Chikitsa of Pandu* Can be adopted. *Snehana* and *Virechana* are advised as general line of treatment in *PanduVyadhi*¹². But there are limitations

of treatment in antenatal phase, consequently *Virechana* and *Snehana* is not recommended in pregnancy. Also it is difficult to treat according to dominance of *Doshas* in antenatal phase. Ayurvedic classics have stated the antenatal care methods. It states the rules and behavior during pregnancy. It is known as *GarbhiniParicharya*.¹³

Treatment of anemia in pregnancy:¹⁴

- 1) Diet -A balance diet rich in proteins, iron and vitamins and which is easily assimilable should be prescribed.
- 2) To improve the appetite and digestion, preparation containing acid pepsin may be given thrice daily after meals.
- 3) Effective therapy to cure the disease contributing to cause of anemia should be given.

Thus *Garbhini Pandu* can be reviewed with anemia in pregnancy with the help of Ayurvedic classics.

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