GARBHINI PANDU: A LITERATURE REVIEW

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ABSTRACT:

Pregnancy is milestone event of a woman’s life which transforms her from woman to a mother. Though it is a joyful journey, it is associated with lots of physical and physiological alterations which give rise to some health issues. Anaemia is one of common health issue occurring on large scale in developing countries.

Ayurveda enlists some complications of pregnancy under the title of Garbhopdravas. Garbhini Pandu is most common Upadrava among them. Though Garbhini Pandu is not mentioned as a separate Vyadhi in classics, by studying various reviews from Samhitas regarding to Pandu and its relation in Garbhini Awastha, we can illustrate probable pathophysiology of Garbhini Pandu.

Keywords: Anaemia in pregnancy, Rasavaha Srotas, Pandu and Garbhini Pandu.

INTRODUCTION:

Motherhood is a life changing event of every woman’s life. From conception to delivery, it is associated with tremendous physiological and psychological alterations. Women have to face various problems. There is increased nutritional demand in pregnancy and due to any kind of deficiency leads to various complications. During pregnancy there are so many complications that may arise. Ayurveda enlists such complication under the title of Garbhopdravas. Garbhini Pandu is most common Upadrava among them. In Harita Samhita Haritacharya described Ashta Garbhopdravas. He enlisted Vivarnatva which can be taken as Pandutva.

Agnimandya is main reason for Aam which is the prime source of Vyadhi utpatti. Due to Pandu many feto-maternal complications may arise during antenatal and postnatal period.

In today’s sedulous life, due to sedentary and changed lifestyle, changed food habits that is Apathyakara Ahar-Vihar, there is Aamotpatti which causes Rasadhatu Dushti which further leads to Uttarottar Dhatuhaani as a Samprapti of Pandu. In Ayurveda great importance has been given to the Garbhini Paricharya which includes regimen of Ahar-Vihar and Pathyapathya in Masanumasik Paricharya. Whatever food a woman takes is digested by Agni and Rasadhatu is formed. Prasad Bhaga of this Rasadhatu nourishes to both mother and fetus. Stanya that is breastmilk is considered as an Upadhatu of Rasadhatu. Hence Garbha is often known as Rasaja-
Rasajashch Ayam Garbhaha⁵. According to Charakacharya, Rasa contributes for the formation of Garbha. As fetuses fulfill its need through mother and there is extra need of nutrients, mother suffers from nutritional deficiencies. Charakacharya counts Pandu as Rasapradoshaj Vyadhi.

In modern science, anaemia in pregnancy is defined as haemoglobin concentration lower than 11gms/dl⁶. It is commonest haematological disorder that may occur in pregnancy. Pregnancy is a state of haemodilution, hence haemoglobin concentration less than 10gms/dl at any time during pregnancy considered as anaemia.

**INCIDENCE:**

According to W.H.O., the incidence of anaemia in pregnancy ranges widely from 40-80 per cent in the tropics compared to 10-20 percent in the developed countries. Its prevalence in developing countries is 51%, while in India it is estimated as 65-75%⁷. India contributes to about 80% of the maternal deaths due to anaemia.

**OBJECTIVE:**

Literature study to understand all Ayurvedic aspect of Pandu and its correction though implementation of Ayurvedic siddhants of Rasavaha strotodushi and its Chikitsa.

**MATERIALS AND METHODS:**

Literature review has been done from Ayurvedic classics, texts like Charaka Samhita, Sushruta Samhita, Ashtang Hridaya, Madhavv Nidana, Kashyapa Samhita and textbook of Prasutitantra evum Streeroga , modern texts, research studies and internet source.

**RIVIEW OF LITERATURE:**

**Concept of Pandu-**

The word Pandu is derived from Dhatu Padi Gatou and Ku Pratyaya. The word literally means Pandurta that is paleness. In literature this discoloration is described as Ketakidhulisannibha which means pale core of Kewada.

**Nidaan of Pandu⁸**

Ahar- Kshar, Amla, Ushna, Teekshna, Viruddha and Asatmya, Vidahi ahar sevana

Vihar- Divaswap, Ativyayam, Maithun, Vegvidharana

Manas- Kaam, Chinta, Bhaya, Krodh, Shoka

**Types of Pandu - Vaataj, pittaj, Kaphaj, Saannipataj and Mridbhakshanjanya Pandu.**

There is no direct citation available about Garbhini pandu in Ayurvedic classics. By studying basic concepts of Dosha and Dhatu and its implementation in Garbhini awastha, we can collaborate the concept of Garbhini Pandu.

In pregnancy Rasa Dhatu is increased its role at Garbha, Garbhini and Stanyotpatti⁹. Due to Rasadushti it causes Dushti of subsequent Dhatus as Rakta, Mansa, Meda etc. which leads to Dhatukshaya and Dhatushaithilya.

According to Sushrutacharya, Pandu is related to Raktavaha Strotas. Due to Agnimandya there is Pittadushti, particularly Ranjak pitta dushti, which leads to enability of Rasadhatu to transform into Raktadhatu which results in Raktakshaya. Due to this there is Bhekavarna and Dhatushaithilya which are the features of Pandu.
According to Kashyapacharya\textsuperscript{11}, Rasavaha strotas are scattered around umbilicus. As the fetus grows, it compresses these Strotas which obstructs flow of Rasa. It results in pale discoloration. We can implement this as a Samprapti of Garbhini Pandu.

According to Haarita, some diseases arise due to pregnancy and hence called as Garbhopdrava. Among these he includes Vivarnata. As Vivarnata is the main symptom of Pandu, this can be considered as Garbhini Pandu.

In Garbhini, Pandu manifests in Rasavaha Strotas, but shows catastrophic effects on succeeding Dhatus and ultimately on whole body. From 5\textsuperscript{th} month onwards, there is increased growth of fetus while mother becomes emaciated. Bala and Varna increases in fetus while Garbhini suffers from BalaVarna Haani\textsuperscript{12}.

**In modern medicine\textsuperscript{13}**

In pregnancy, there is disproportionate increase in plasma volume, RBC volume and haemoglobin mass and there is marked demand of extra iron in the need of growing fetus. Only diet could not fulfill it. As a result haemoglobin level falls and haematocrit value also. It is due to haemodilution and increased rate of iron absorption. Thus, this condition is known as physiological anaemia which is normocytic and normochromic in nature.

Though Garbhini Pandu is a common Updrava, it may results in threatful complications like preterm labour, postpartum haemorrhage, cardiac failure, shock etc.

To avoid these complications, proper treatment should be started as early as possible. In modern science, there are limited treatment principles to raise the haemoglobin concentration by proper diet, dietary supplements like Vit.B12, Folate, ferrous molecules, intravenous iron infusion and in severe cases by giving blood transfusion.

In Ayurveda, there are so many principles of treatment for correction of haemoglobin with added aspect of Rasdushti, Dhatukshaya which includes Aampachana, Agnideepana, Pittashamak, Dhatvagnivardhana, Raktavardhaka, Rasayana etc.

<table>
<thead>
<tr>
<th>Chikitsa</th>
<th>Action</th>
</tr>
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<tbody>
<tr>
<td>Aampachana</td>
<td>Digests Aam</td>
</tr>
<tr>
<td>Deepana</td>
<td>Enhances Agni which improves Dhatunirmiti and Uttarottar DhatuPushti</td>
</tr>
<tr>
<td>Pittashamana</td>
<td>Makes Samprapti Vighatana</td>
</tr>
<tr>
<td>Raktavardhak Dravyas</td>
<td>Reduces paleness and other features</td>
</tr>
<tr>
<td>Rasayana Chiktsa</td>
<td>Improves general condition of both mother and fetus</td>
</tr>
</tbody>
</table>

**Chikitsa Siddhant\textsuperscript{14}:**

As pregnancy is a delicate stage, treatment should be Snigdha, easily digestable and Soumya in nature.

**Ghrutas** - Dadimadi ghruta

Katukadi ghruta

Draksha Ghruta
Panchatikta Ghruta
Mahatikta ghruta

Bhasmas- Lohabhasma
Roupyabhashma
Abh rakabhasma
Vangbhasma
Mandoor bhasma
Swar namakshik bhasma.

Kalpas- Tapyadi loha
Navayas loha
Vasant kalpas - Laghumalini vasant
Madhumalini vasant.

These Dravyas enhances Agni, both Jatharagni and Dhatvagni and relieves Dhatu shaithilya.

Ahar-
Yava, Shastikshaali, Mudga, Masur, Jaangal Mansrasa are easy to digest.
Kharjur, Gud, Mrudvika

DISCUSSION:

- Discussion on modern review-

Definition- Anaemia is a state in which body parts becomes pale due to haemoglobin in peripheral blood less than 11gms/dl.

In pregnancy, the systems undergo physiological changes. In hematological changes blood volume increases which causes haemodilution which leads to physiological anaemia in pregnancy.

- Discussion on Ayurvedic review-

Rasa Dhatu-

It is a first Dhatu made up of Prasada Bhag of Ahararasa. It is precursor of Uttar Dhatus. Due to Rasa and Rakta, Garbha gets its nourishment. Hence Rasa Dhatu plays major role. Obstruction in Rasavaha Strotas leads to unwanted outcomes giving rise to Vyadhis.

Pandu-

It is the condition in which there is pallor or faint discoloration of skin, nail bed and conjunctiva. In severe cases Akshikuta Shotha that is peri- orbital oedema can be seen.

Types of Pandu-

There are 5 types mentioned in classics as- Vaataj, Pittaja, Kaphaja, Sannipataja and Mridbhakshanjanya Pandu.
Garbhini Pandu is not mentioned separately.

By reviewing the literature regarding to Nidanpanchak and theories correlation in Garbhini, Samprapti of Garbhini Pandu can be stated as-

-Dominance of Pitta Dosha increase Dravabhava of Rasa Dhatu.

- Rasadushti leads to Uttarottar Dhatunirmiti.

-This causes Vaivarnya and Dhatushaithilya.

As pregnancy advances, fetal need increases

\[ \downarrow \]

Dravatva of Rasadhata increases to fulfill this demand

\[ \downarrow \]

Garbhaja Kleda Causes Malaroopa Vriddhi in Garbhini\(^{15}\)

\[ \downarrow \]

Drava Guna and Kleda causes Agnimandya

\[ \downarrow \]

Rasavaha Strotodushti

\[ \downarrow \]

+ Pittadushti due to increased Dravatva

Ranjaka and Bhrajak Pitta Vikruti

\[ \downarrow \]

Panduta at Twak, Nakha, Netra, Jivha

\[ \downarrow \]

Garbhini Pandu

Treatment aspect-

-Kashyapacharya states that, Garbhini Pandu is not different than Pandu; hence Chikitsa mentioned in classics can be applied in Garbhini except Teekshna Shodhana.

-Garbhini Paricharya should be followed.

Thus, Garbhini Pandu can be reviewed with anaemia in pregnancy with the help of Ayurvedic classics.
CONCLUSION:

As Pandu arises due to Agnimandya, Aam and Rasadushti, Ayurveda may give more authentic solutions, provided that Ayurvedic iron supplements should undergo researches. Though severe anaemia could not be able to manage with Ayurvedic therapy, but have lots of hopes in deficiency related anaemia. Through improvement of digestion and correction of Rasa-Aadyadhatu for better nourishment and subsequent Dhatunirmiti which can provides a healthy motherhood.

Ayurvedic principles of correction of anemia can be introduced in health streammat ground level under national health mission. Hence Ayurved can contribute to maternal and child health program at global level.

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