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# SADHYOGRAHITAGARBHAVASTHA (EARLY PREGNACY); A CONCEPTUAL STUDY

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#### **ABSTRACT**

Developing world may consider the pregnancy and child birth as a medical problem, but *Ayurveda* treat it as physiological phenomenon. The preconception, pre-peri-after coital and antenatal advises regarding diet and other regimen acts as preparatory phase for the couple to play a new role of parenthood. The symptoms of "Sadyograhitagarbha" described in ancient classics, The term "Sadyograhitagarbhavastha" is used in Ayurvedic literature in meaning of immediately conceived woman as well as woman having pregnancy in early stage. In all the *Ayurvedic samhitas* total 20, following symptoms of

"Sadyograhitagarbha" are described- Nisthivika, Gaurava, Angasada, Tandra, Praharsa, Hridayavyatha, Tripti, bijagrahanamyonya Shrama, Glani, Pipasa, Sakthisada, sukrasonitayoravabandha, Yonisphurana. Garima, Sphurana, Hrallasa, Praseka. Hridayaspandanam & Lomaharsa. We should explain it through Àyurvedic principle & modern knowledge to enrich the knowledge of *Ayurvedic* Physiology. To promote the Ayurvedic method of examination of pregnant woman and establishment of confirmatory diagnosis of pregnancy with the help of classical symptoms.

**KEYWORDS:** Sadyograhitagarbha, Nisthivika, Gaurava, Angasada, Tandra, Praharsa, Hridayavyatha, Tripti, bijagrahanamyonya Shrama, Glani, Pipasa, Sakthisada, sukrasonitayoravabandha, Yonisphurana. Garima, Sphurana, Hrallasa, Praseka, Hridayaspandanam.

#### INTRODUCTION

The evolutionary advents of human embryo necessitate physiological changes in the maternal metabolic, hormonal and immunologic systems, to compensate for the increased and altered demand of an intracorporeal pregnancy especially at the time of conception.

Pregnancy is marked by profound physiologic adaptations beginning early in gestation, Often even before a woman is aware that, she is pregnant, symptoms of vast physiological changes taking place are present.

Major adaptations in maternal anatomy, physiology and metabolism are required for a successful pregnancy. These alterations are needed to allow the development of single diploid cell into an infant weighing 2.5 kg. These adaptations profoundly affect nearly every organ and system.

**Garbhavastha:** In Ayurvedic terminology the conceptus is called as *Garbha* and it is defined in *Charaka Samhita* as follows,

'kqØ'kksf.krthola;ksxs rq [kyq dqf{kxrs xHkZ laKk HkofrA *Ch. Sha. 4/5* 

It is very much amazing that our ancient scholars have observed the process of *garbhadhana* (fertilization), microscopically changes occurred at various stages of the development of embryo (fetus) and very well documented it in literature. Perhaps they have specific observation techniques.

The union of sukra, Artava and Atma or jiva inside the kuksi (uterus) is known as garbha.<sup>[1]</sup> The rite through which a man placed his seed in a woman's womb is called Garbhadhana.

#### Sadyograhitagarbhavastha (Early pregnancy).

The term "Sadyograhitagarbha" is composed by union of three words sadyah+grahita+garbha.

The term "Sadyograhitagarbhavastha" is used in Ayurvedic literature in meaning of immediately conceived woman as well as woman having pregnancy in early stage. The term "Sadyograhitagarbhavastha" is composed of three words; sadyah + grahita + garbha. About garbha we have already discussed earlier.

Conclusive word meaning of term "Sadyograhitagarbhavastha"

According to *Shabdakalpadruma* and *Vachaspatyam* the word *sadyah* means immediate. According to *Sanskritshabdarth kaustubha* the word *sadyah* means recent i.e. few times earlier.

So, the term "Sadyograhitagarbhavastha" is used in Ayurvedic literature in meaning of immediately conceived women as well as pregnancy in early stage. These symptoms also represent the symbol of physiological changes recently after conception. The first phase of garbhniparicharya starts off with the diagnosis of pregnancy. Diagnosis of pregnancy can be based on.

Presumptive signs and symptoms

Probable signs

Positive signs

Our Acharyas have classified them as "Sadyograhitagarbhavastha" lakshanas and "Vyaktagarbha" lakshanas.

"Sadyograhitagarbhavastha" lakshanas (including presumptive and probable signs) are the set of signs and symptoms which help in the detection of pregnancy very early or even just after coition.

"Vyakthagarbha" lakshanas (positive sings) are generally observed after amenorrhea i.e. these symptoms are observed after her first missed period and are symptoms which help in confirming the pregnancy.

There is various interpretation of the term "Sadyograhitagarbhavastha". According to some Acharyas these are the signs and symptoms which are seen and felt by the pregnant woman immediately after conception i.e. the moment the Sukra and Artava unite, or even after maithuna (copulation) which results in conception.

According to others these are the signs and symptoms which appear within seven days of conception. Some others say that they are the signs and symptoms before the cessation of menstruation. It is also explained as signs and symptoms of women having become recently pregnant.

### Development of fetus in early pregnancy stage

The process of fertilization, conception and development of the fetus observed with great concern by scholars of India. Seminars were arranged on such selected topics and reputed scholars of this country and from abroad participated in these deliberations. Recorded

proceedings of these international seminars are available in *samhitas*. After conception the fetus remains in uterus till delivery.

*Brahmana grantha* describes that all body parts of embryo do not develop simultaneously, develop one after another.

In *Garbhopnishada* concept of various stages of fetal development is mentioned. Mostly all the Ayurvedic texts have furnished detailed description of growth of embryo in different months of pregnancy.<sup>[80]</sup>

#### First month

As per *Garbhopnishada*, the fertilized egg become *kalala* (morula) in one night, *budbuda* (blastocyst) in seven nights, *pinda* (collapse of blastocyst for implantation) in 15 days and solid in one month.<sup>[80]</sup>

Yajyavalka smriti has described that after union of sukra and sonita, carrying panchamahabhutas as well as decend of atma, all these get mixed up and are moistened in the first month.

Charaka stated that in the first month, atma gets mixed up or vitiated by all the dhatus (sarvadhatukalushkrita) and attain a mucoid appearance (sammurchchhita). Previously due to prithvitatva, the shape is solid, which later on becomes blastocyst due to predominance of jala tatva. He believes that at this stage all body parts are present in this formed mucoid structure but in unmenifested form. [81]

Susruta and Vagbhata are of the opinion that during this month, the embryo is in the shape of kalala. [82]

*Harita* has elaborated the views of *Yajyavalka smriti* and said that after union of *sukra* and *sonita*, on the first day, it attains the form of *kalala*, on tenth day it becomes *budbuda*, on fifteenth day a solid and on 20<sup>th</sup> day a mass of flesh. The *mahabhutas* get associated with on 25<sup>th</sup> day and by the end of one month all the *tatvas* (*bhutas*) become conspicuous.<sup>[83]</sup>

15<sup>th</sup>

20th

S.N.	Stage	Days according to text				Modern concept	
		GU	CS	SS	HS		
1.	Kalala	1 <sup>st</sup>	30th	30 <sup>th</sup>	1 <sup>st</sup>	Morula (1-3 days)	
2.	Budbuda	$7^{\rm th}$	-	-	10 <sup>th</sup>	Blastocyst (4 <sup>th</sup> day)	
2.	Budbuda	$7^{\mathrm{th}}$	-	-	$10^{\rm th}$	Blastocyst (4 <sup>th</sup> day)	

15<sup>th</sup>

30th

# Different stages of fetus during first month.

Pinda

Ghana

Pesi

#### **Second month**

3.

4.

5.

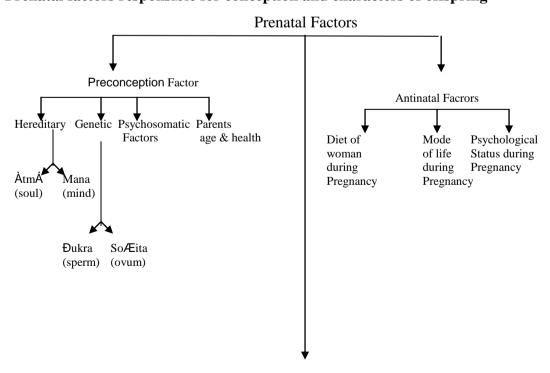
Garbhopnishada is of the view that buds of various parts like head, lower extremities, and calf muscles along with abdomen and sacral region appears in this month. [80]

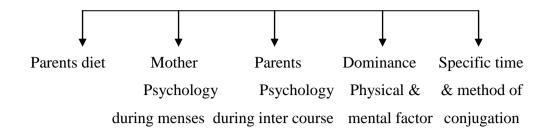
Charaka is of the view that embryo appears a solid mass in this month. If this solid mass has oval (pinda) the born child would be a male, if elongated a female and if rounded mass a hermaphrodite.[84]

Susruta and Bhavamisra corroborating the above views have elaborated and opine that these accumulated mahabhuts get processed by the combined action of Kapha, Pitta and Vayu and become solid.<sup>[85]</sup>

Harita has considered that in this month (on 50<sup>th</sup> day) the bud of future body parts appears.<sup>[86]</sup>

#### Prenatal factors responsible for conception and characters of offspring





## Historical aspect of the term "Sadyograhitagarbhavastha"

## 1. Vedic kala (Ancient period)

The term "Sadyograhitagarbhavastha" is not found in Vedas. However, in Atharvaveda many mantras of process of garbhadhana, growth and development of garbha have been described in panchama kanda.<sup>[87]</sup>

#### 2. Samhita kala (Classical period)

From the period of *Charaka* the term "*Sadyograhitagarbhavastha*" came into existence. In entire period of *samhita kala* direct and clear reference about symptoms of "*Sadyograhitagarbhavastha*" are available in context of symptoms of immediately conceived woman or pregnancy in early stage i.e. in hidden stage.

Moreover after this the term "*Vyaktagarbha*" is also available in context of symptoms of pregnancy in advanced stage i.e. in manifestation stage.

Further more vast description of *garbhadharana*, *garbha* and *garbhavakranti* is available as we have discussed it earlier.

Acharya Charaka has described following symptoms of "Sadyograhitagarbhavastha" Nisthivika, Gaurava, Angasada, Tandra, Praharsa, Hridayavyatha, Tripti, bijagrahanamyonya. As in Charaka Samhita.

Su. Sha. 3/11

Acharya Charaka has also advocated the symptoms of *mithyagarbha* i. e. pseudopregnancy. He said that *kukshishula*, *kasa*, *atisara*, *vamana*, *arochaka*, *apaka* (indigestion), *angamarda* (malaise), *nidradhikya*, *Alasya*, *stimita* (feeling as body covered with wet cloth), secreation of *Kapha* from mouth.

Acharya Susruta has described Shrama, Glani, Pipasa, Sakthisada, sukrasonitayoravabandha, Yonisphurana.

*Bhela* has given some modes for the production of specific offspring. He also emphasized some diseases with treatment in which the conception does not occur. Description of the symptoms of "Sadyograhitagarbhavastha" is not found.

*Harita* has given month wise dietetic regimen for pregnant woman and description of *garbha*. Description of the symptoms of "*Sadyograhitagarbhavastha*" is not found.

In *Kasyapa* Samhita the chapter *asamanya gotriya* is incomplete from beginning. In this description of development of fetus starts from third month. Description of the symptoms of "Sadyograhitagarbhavastha" is also not found.

#### 3. Sangraha kala (midevel period)

Acharya Vriddhavagbhata has described Yonybijagrahanam, Tripti, Garima, Sphurana, sukrartavanubandha, Praharsa, Hrallasa, Tandra, Angasada, Praseka, Hridayavyata, Glani, Pipasa. [93]

Acharya Laghuvagbhata has described Yonyabijasangrahanam, Tripti, Guruta, Sphurana, sukrartavanubandha, Hridayaspandanam, Tandra, Glani, Pipasa, Lomaharsa. [94]

Acharya Bhavamisra has described sukrasonitasrava, Shrama, Sakthisada, Pipasa, Glani, Sphurtirbhage. [95] He states that these symptoms are described for the regimen performed or avoided during pregnancy.

#### Adhunika kala (modern period)

During this period, attempts have been made to incorporate the knowledge of *Ayurveda*, in terms of diagnosis and treatment with newer interpretations and comparative studies identifying modern clinical correlates. But, the term "*Sadyograhitagarbhavastha*" is still

untouched by the hands of present Ayurvedic scholars. It is still described same as in samhitas.

Symptoms of "Sadyograhitagarbhavastha" according to various treatises

S.N.	Symptoms	Charaka	Susruta	Astanga samgraha	Astanga hridaya	Bhavprakasa
1.	Nishthivika	+	-	-	-	-
2.	Gaurava	+	-	-	+	-
3.	Angasada	+	-	+	-	-
4.	Tandra	+	-	+	+	-
5.	Praharsa	+	-	+	-	-
6.	Hridayavyatha	+	-	+	-	-
7.	Tripti	+	-	+	+	-
8.	Bijagrahanamyonya	+	-	+	+	-
9.	Shrama	-	+	-	-	+
10.	Glani	-	+	+	+	+
11.	Pipasa	-	+	+	+	+
12.	Sakthisada	-	+	_	-	+
13.	sukrasonÍtayoravabandha	-	+	+	+	+(sukrasonÍta srava)
14.	Yonisphurana	-	+	1	-	-
15.	Garima	-	-	+	-	-
16.	Hrallasa	-	-	+	-	-
17.	Praseka	-	-	+	-	-
18.	Sphurana	-	_	+	+	+(sphurtibhag e)
19.	Hridayaspandanam	-	-	-	+	-
20.	Lomaharsa	-	-	-	+	-

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In all the Ayurvedic samhitas total 20, following symptoms of "Sadyograhitagarbhavastha" are described- Nisthivika, Gaurava, Angasada, Tandra, Praharsa, Hridayavyatha, Tripti, bijagrahanamyonya Shrama, Glani, Pipasa, Sakthisada, sukrasonitayoravabandha, Yonisphurana. Garima, Sphurana, Hrallasa, Praseka, Hridayaspandanam & Lomaharsa. We will discuss these symptoms later one by one.

As we can see most of the symptoms are related with vitiation of *Kapha dosa* like *Nishivika*, *Gaurava*, *Angasada*, *Tandra*, *Praharsa*, , *Tripti*, *Glani*, *Hraliasa*, *Praseka* & *Lomaharsa*.

Everything is based on *tridosic* involvement as *dosa*, *dhatu* and *malas* are basis of life. When we study about physiology of *Kapha*, we find that it is essential for union and sticking process.

It may conduct helping role in union of sperm and ovum. *Kapha* being liquid or semisolid in nature due to derived from rasa, provide medium for movement of sperm towards ovum, helps uniting them (fertilization).

*Kapha* may prevent the fertilized ovum i.e. zygote from entering of another sperm, by making a protective membrane surrounding it. After fertilization, nutrition is provided by "*upsneha*" and "*upsweda*" of *garbhasaya*. It is believed that nutritious material which provides nutrition is derivative of *Kapha*.

*Kapha dosa* also plays important role in implantation of embryo due to its sticking property. All these factors represent the reason behind physiological raise of *Kapha*, at the time of conception and pregnancy that is why we find most of the symptoms of "*Sadyograhitagarbhavastha*" represent vitiation of *Kapha*.

The dietetic regimen advised during the first trimester, stress is laid on stabilizing the pregnancy and nourishing the uterine bed through *rasa*, *rakta dhatus*. Kaphavardhaka *a*hara and vihara (rest, sleep) should be advised to pregnant lady so that implanted embryo will remain attached with uterine wall to avoid miscarriage.

As a clinician we must fully understand these changes to determine what signs and symptoms are normal and which are potentially due to disease process either unique to or exacerbated by pregnancy.

# Physiological changes manifests as symptom of "Sadyograhitagarbhavastha":

*Nisshivana* and *Praseka* are nearly same terms. According to Àyurvedic literature these symptom can be included under *nanatmaja vikara* of Kapha. It may be possible that the *bodhaka Kapha* present in *jihva*, *jihvamula* and *kantha* gets especially vitiated due to pregnancy.

According to modern due to increased water content, increased GFR and reabsorbing of water through kidney, odema of upper respiratory mucosa, predispose the gravida to nasal

and pharyngeal congestion. So that she desires to spit the cough frequently produced by congestion.

*Gaurava & Angasada:* Both are also produced due physiological raise of *Kapha* in the body. The body becomes heavy due to increase in blood volume, extra cellular fluid volume. The internal wall of genital tract becomes more vascular, odematus, hyperemic. The endocervical mucosa and epithelium shows marked proliferation. These physiological changes may get started very shortly after conception, which can manifests as all these symptoms.

*Tandra*: It is also one of the *nanatmaja vikara* of K*apha*. *Tandra* means drowsiness. It may be correlated with REM (Rapid eye movement) sleep. The NA fibers of locus ceruleus of pons get stimulated, due to increased concentration of cortisol in pregnancy. By this the pregnant lady may goes into REM sleep. The psychological factor may also play an important role in secretion of NA.

*Praharsa* and *Lomaharsa*: According to Ayurvedic literature both of these symptoms are due to *sita guna* (excessive cooling effect) of raised *Kapha* According to modern literature it is probably due to decreased systemic vascular resistance (SVR). Peripheral vasodilatation is occurs due to circulating progesterone and increased catecholamine (adrenalin and NA). Due to alteration of mood, the adrenergic and NA fibers get stimulated.

*Hridayavyatha* and *Hridayaspandanam*: We find that after conception the K*apha* and rasa *dhÁtu* of the body get increased to provide nutrition for embryo. To pump out this excessive quantity of rasa *dhatu*, *Vyan Vayu* also vitiated and gives more forceful impulse to heart. This causes extra workload for heart and due to this the woman may feel mild pain in heart and palpitation of heart.

According to Ayurveda, Sadhaka pitta is found in hridaya, there is possibility of changes in this after conception which is related with psychological factors. According to modern due to increased cardiac output early in gestation by increased blood volume, to meet the additional oxygen requirement (due to increased metabolic activity). The heart begins to beat in a regular rhythm in 5<sup>th</sup> week of gestation. It may be possible that this symptom is described in relation to fetal heart.

*Tripti* and *Bijagrahanamyonya*: *Tépti* is in the meaning of absence of sexual or coital desire. *Tripti* is also one of the *nanatmaja vikaras* of *Kapha*.. Probably, these observations about this symptom in animals, our *Acharyas s* had added in human kingdom.

*Shrama*: It is also due to increased *Kapha*. Oxygen consumption increases about 15-20%. There is decreased supply of oxygen into muscle. Most of the organs and systems have to work more than nonpregnant state. So rate of depletion of muscle glycogen is more. Fatigue may also occur due to psychological reason.

*Pipasa*: The initial decline in serum sodium and osmolality & the threshold for thirst changes early in pregnancy. Lowering threshold for drink stimulates water intake and dilution of body fluids. Because AVP (ADH) release is not suppressed at the usual body tonicity (by Lindneimerm Barron et al 1989). Therefore during gestational week 5-8, an increase in water intake occurs. According to *Àyurveda* it is difficult to explain the reason but it may be possible that due to vitiation of *Kapha* the water desire increases.

Sakthisadana: We are unable to explain this feature according to Ayurveda or Modern knowledge.

**Yonisphurana** and **Garima**: We are unable to explain these features according to *Ayurveda* or Modern knowledge. Perhaps both of these are due to psychological factors, as sadhaka pitta is affected.

*Hrallasa*: It is also due to *Kapha vriddhi*. According to modern the exact cause is not well understood, although relaxation of smooth muscle of the stomach probably plays a role and elevated level of hCG may involve.

The muscle tone and the motility of the entire gastrointestinal tract are diminished due to high progesterone level. Cardiac sphincter is relaxed.

To go a step ahead, we can even say that parts of this ancient knowledge are yet to be physically researched and understood by the modern scientists. In present study an attempt was made to understand the physiological changes during "Sadyograhitagarbhavastha" (early pregnancy) which is remain unknown to the Science world till such time.

Besides modern medical development there are many new ideas and concepts in *Ayurveda* especially with reference to the fertilization and growth of the fetus. "*Sadyograhitagarbha*" is an important term which is required to be studied scientifically. If this stands the test of science, it can be utilized for the benefit of humanity at large.

Apart from all these, in remote areas unavailability of these investigatory facilities for diagnosis of pregnancy is also a serious problem. All these methods are payable, thus difficult to be afforded by poor patients.

Therefore under present circumstances the holistic approach of *Ayurveda* could be beneficial in providing cheapest (without spent of a single pie), safest and earliest method for diagnosis of pregnancy.

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