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MASANUMASIK GARBHAVRUDDHI: AYURVEDIC PERSPECTIVE

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ABSTRACT

Ayurveda can be defined as a system which helps to maintain health by keeping Mind, Body and Soul in perfect equilibrium in nature. Basic elements of the body i. e. *Panchamahabhutas* along with *Shukra* and *Shonita* result in formation of *Garbha*. *Acharya's* has described *Masanumasik Garbhavruddhi* right from conception up to delivery in detail. In ancient times though, the microbiology, molecular biology and genetics were not developed, different concepts regarding it are found. In *vedic scriptures, puranas* and *Samhita granthas* for which they have mentioned term *Garbhavakranti*.

Modern science mentioned complete developmental period of 9 months of fetus in uterus considered as gestational period. *Masanumasik* changes described in *Samhita* are exactly found same in the pregnant females.

Keywords: Human Embryology, *Garbhavruddhi*, Foetal growth and development, *Charak Samhita, Sushruta Samhita, Kashyap Samhita*.

INTRODUCTION

Embryology is the study of the formation and development of the embryo (or fetus) from the moment of its inception up to the time when it is born as an infant. Embryology is the study of the development of an individual before birth. Every individual spends the first nine months (266 days or 38 weeks to be exact) of its life within the womb of its mother. The most spectacular changes occur in the first two months; the unborn baby acquires its main organs and just begins to be recognizable as human. During these two months we call the developing individual an embryo. From the third month until birth we call it a foetus.

Studying the garbha is like studying *sharir* right from its origin. All the basic concepts of *sharir* are known, understood and to be studied in *garbha*. *Garbha* is like minute form of *sharir* from which grows in periodical manner. As *Atma* (soul) impelled by the afflictions of his own *did's* or *karma*, enters into along with *Shuddha Shukra* (Sperm) and *Shuddha Artava* (Ovum), gives rise to the formation of *Garbha* (Embryo). Our *Acharyas Charak, Sushruta* etc. already mentioned about the *Masanumasika Garbhavruddhi*. They did study about it. Also the modern science uses weekly development method.

AIM AND OBJECTIVES

To Review the study of *Masanumasik Garbhavruddhi* according to *Ayurveda*

MATERIALS AND METHODS

The materials were collected from classical *Samhita*, Research journals and Articles.

MONTHLY GROWTH AND DEVELOPMENT OF FOETAL:

1. First Month:

Embryo takes shape of *Kalala* (irregular form or random).^{1, 2, 3}

Harita elaborated in detail development in first month. On first day it becomes *Kalala*.⁴

Acharya Kashyap elaborated first and second month of foetal development as per, Male *Shukranu* entered in *Garbhashay* of female. At that time *Shukranu* surrounded by *Artava*. Formation of bones and muscle are from *Shukra*. *Snayu* produced by bones and muscle. Growth and development is occur as per this upto second month.⁵

As per modern science Morula formation

Upto 7th day- It becomes *Budbuda*.

This indicates blastocyst formation which begins about on 5th day.

Upto 15th day – It becomes *Ghana* (Solid).

Upto 20th day – It becomes mass of flesh (*mansapinda*)

Upto 25th day – It becomes *Panchamahabhutatmaka*

We can explain it as already present from fertilization, gets activated for organogenesis.

2. Second month:

Sex of child can be predicted at this stage.

If solid mass has Oval shape (*Pinda*) the born child would be male, if Elongated shape (*Peshi*) the female child and if Round shape (*Arbudakara*) mass the Hermaphrodite. Acharya *Sushutra* have elaborated that, these accumulated *Mahabhutas* in 1st month (i.e. *Kalala*) gets processed by combined effect of *Sheeta-Ushma-Anila* (*Tridosha*) and become solid.⁶⁻⁷

Ghana, *Peshi*, *Arbudha* respectively *Purusa*, *Stri* and *Napushaka*.⁸

Acharya *Kashyap* elaborated first and second month of foetal development as per, Male *Shukranu* entered in *Garbhashay* of female. At that time *Shukranu* surrounded by *Artava*. Formation of bones and muscle are from *Shukra*. *Snayu* produced by bones and muscle. Growth and development is occur as per this upto second month.

Harita mentioned upto 50th day bud like structure of future body parts are formed (*Garbhankur*).⁹

3. Third month:

In the third month, all body parts and *Indriyas* becomes apparent or clearly visible. Five *Pidika* (bud like appearances)

one for head, four for upper extremities and lower extremities developed.¹⁰⁻¹¹

Acharya *Kashyap* mentioned movement of Embryo starts that is called as *Praspandana*, develops consciousness and can feel pain. This apparent movement is mentioned by *Kashyap*.

In this month 5 body parts are manifested:- head, 2 legs and 2 hands in the minute bud form. Due to appearance of head the *Garbha* get sensation of happiness and sadness.¹²

According to modern science, organs arms and legs are developed up to end of second month and on third month. Spontaneous movements are possible by Foetus, although they are usually faint to be felt mother.¹³

4. Fourth month:

As per modern science heart beating starts at 2nd month but are audible through doppler on 3rd month and by stethoscope in 4th month.

The formation of various body parts completed till 4th month and stability to foetus comes. Foetal heart manifests so-*Dauhrudini*. *Chetana*/ consciousness arise and desires are express via mother. The desire of *Dauhrudini* should fulfilled – otherwise the child become *Kubja* (hump back), *Kuni* (deform arm), *kanja* (deform leg), *jada* (idiot), *Vamana* (dwarf), *Vikrit akasha* (deformed eye), *Anaksha* (no eye).

If desire of *Dauhrudini* is fulfilled she will give birth to strong/ potent, and long living child.¹⁴

The foetus get stabilized so the pregnant women get feeling of excess heaviness of body.¹⁵

Fetus get stability and become free from abnormalities that is why pregnant women get feeling of excess heaviness of body.

All body parts are expressed.¹⁶⁻¹⁷

Harita mentioned Lanugo appears on 4th month.¹⁸

5. Fifth month:

Mind is developed and hence increase in the mental consciousness.¹⁹⁻²⁰

Excess increase of muscles, blood therefore pregnant women become thinner.

²¹

Manifestation of *Mana* (mind activities increase). Muscles and blood mass increase.²²

Harita mentioned the foetus becomes more *Sujiva*.²³

As per modern by 5th month auditory and peripheral sensory reflexes develop to certain extent according to modern researches hence authors have mentioned the enlightenment of "*Mana*".

6. Sixth month:

Acharyas have mentioned enlightenment of *Buddhi* in 6th month.²⁴⁻²⁵

Development of hairs, nails, bone, tendons and accumulation of energy and skin

complexion is mentioned in this month.²⁶⁻²⁷

Harita mentioned *Prasphurana* spontaneous foetal movements.²⁸

Up to 24 to 25th weeks sensory and motor neurone system attains some maturity and gets developed so description about enlightenment of *Buddhi* can be explained. Till 6th month hair forms extending to include eyebrows and eyelashes and hairs on scalp. Lanugo covers entire body.

7. Seventh month:

Growth and development of all aspect of *Garbha* take place so pregnant women become exceedingly deficit in all aspect of her health.²⁹

In 7th month all the features all body parts and organs gets properly developed.^{30, 31, 32}

Complete development of all the dhatu and body parts and is completely associated with *Vata-Pitta-Kapha*. Pregnant lady get tired.

According to modern foetal viability is mentioned by 28th week, if birth occurs at 7th month newborn can survive as lungs gets matured.

8. Eight month:

In stability of *Oja* is mentioned in this month by all *Acharya's*. (*Oja* Concept- it is essence of all seven dhatus which given strength of the body improves immunity power and takes care of wellbeing). It moves from mother to foetus and foetus to

mother in this month. At the time delivery if *Oja* remains in mother’s body instead of foetus , foetus will die.³³⁻³⁶

Harita mentioned *Pachakagni* (digestive system) starts functioning in 8th month.

This concept of ‘*Ojatransformation*’ is difficult to explain yet by modern science, but it is noted that babies delivered in 8th month have more chances of still birth than in 7th and 9th month the cause of it cannot be explain as per modern.

9. Ninth month:

From the 1st day of nine month to the end of the 10 month – it is period of labor. Beyond this the intrauterine stay of foetus is abnormal.³⁷

9th, 10th , 11th or 12th month is normal month for labor beyond this is abnormal.^[38]

Usually delivery is in 9th month.

Constituents of different body parts³⁹⁻⁴⁰:

Sr. No.	Organs	Origin from
1.	<i>Spleen and Liver</i>	<i>Raktadhatu</i>
2	<i>Caecum</i>	Waste product of <i>Raktadhatu</i>
3.	<i>Lung</i>	Foam of <i>Raktadhatu</i>
4.	<i>Intestine, Anus and Urinary Bladder</i>	<i>Sara of Shleshma and Rakta</i> by <i>Pitta</i> and <i>Vatadosha</i>
5.	<i>Tongue</i>	<i>Rakta, Kapha</i> and <i>Mansa</i>
6.	<i>Muscles</i>	From <i>Mansadhatu</i> and <i>Vayu</i> and <i>Pitta</i>
7.	<i>Tendons and vessels</i>	From unctuous portion of

		<i>Medadhatu:</i> By <i>Mrudupaka</i> – vessels By <i>Kharapaka</i> - tendons
8.	Testicles	<i>Rakta , Meda, Kapha</i> and <i>Mansa</i>
9.	Kidneys	<i>Rakta</i> and <i>Meda</i>
10.	Heart	Essence of <i>Rakta</i> and <i>Kapha</i>

Table no. 01

DISCUSSION:

Ayurvedic Masanumasik Garbhavruddhi concept is scientific concept and based on experience and observations of ancient Acharyas. *Masanumasik* changes described in *Samhitas* are found exactly same in the pregnant females. There is significant association in between *Masanumasik Garbhavruddhi* and developmental changes in the pregnant females.

CONCLUSION:

Various *Acharyas* had described about the month wise development of the foetus in *Ayurveda* since long period ago. The concepts forwarded by Acharyas are not so clear to understand the actual changes occurring in intrauterine life from fertilization till birth.

Some of the changes explained by *Acharyas* are found to be similar to that of modern science and some can be correlated with it by the basic concept of knowledge. The *Acharyas* explain that

there is appearance of *Kalala* in the 1st month after fertilization; this may be morulation or blastocyst stage. In second month *Acharyas* give the idea about the sex determination on the basis of shape of embryo. But the modern science tells, the determination of sex is by the minute nuclear organelles lying inside nucleus of sex cell i.e. chromosome. Male are the main sex determiner. There are still many points; those given by *Acharyas*, these are difficult to explain and correlates in term of modern applied science and need to undergo research for their actual explanation.

REFERENCES

1. Shastri Ambikadatta Editor Ayurvedatattva- Sandipika Hindi Commentary on Sushruta Samhita , Chaukhambha Sanskrit Sansthan Varanasi, Edition 2003, Sharirasthana , Chapter no. 3, Verse no. 18
2. Vagbhatacharya virachit Ashtang Sangrah SarvangaSundariVyakhyasahit, Acharya Raghuvir prasad Trivedi, Baidyanath prakashan, Sharirasthana, Chapter no. 2, Verse no. 13
3. Ashtang hrudayam of Vagbhata Edited with the Vidyotini Hindi Commentary By Kaviraja Atrideva Gupta, Chaukhambha prakashan, Reprint 2021, Sharirasthana , Chapter no. 1, Verse no. 37
4. Harita Samhita, Shashtasthana, Chapter no. 1, Verse no. 7
5. Kashyap Samhita By Vruddha Jivika By Nepal Rajaguru With The Vidyotini Hindi Commentary, Chaukhambha Sanskrit Sansthan Varanasi, Reprint 2016, Sharirasthana, Asamangotriya Shariraadhyay.
6. Tripathi Brahmanand, Editor Charak Chandrika, Hindi Commentary On Charak Samhita, Chaukhambha Surbhartiprakashan, Sharirasthana, Chapter no. 4, Verse no. 10.
7. Shastri Ambikadatta Editor Ayurvedatattva- Sandipika Hindi Commentary on Sushruta Samhita , Chaukhambha Sanskrit Sansthan Varanasi, Edition 2003, Sharirasthana , Chapter no. 3, Verse no. 15
8. Ashtang hrudayam of Vagbhata Edited with the Vidyotini Hindi Commentary By Kaviraja Atrideva Gupta, Chaukhambha prakashan, Reprint 2021, Sharirasthana , Chapter no. 1, Verse no. 49.
9. Harita Samhita, Shashtasthana, Chapter no. 1, Verse no. 19.
10. Shastri Ambikadatta Editor Ayurvedatattva- Sandipika Hindi Commentary on Sushruta Samhita , Chaukhambha Sanskrit Sansthan Varanasi, Edition 2003, Sharirasthana , Chapter no. 3, Verse no. 18

11. Tripathi Brahmanand, Editor Charak Chandrika, Hindi Commentary On Charak Samhita, Chaukhambha Surbharti prakashan, Sharirasthana, Chapter no. 4, Verse no. 11.
12. Ashtang hrudayam of Vagbhata Edited with the Vidyotini Hindi Commentary By Kaviraja Atrideva Gupta, Chaukhambha prakashan, Reprint 2021, Sharirasthana , Chapter no. 1, Verse no. 54-55
13. Human Embryology, 7th Edition, Inderbir Singh, G.P. Pal, Published By Rajiv Beri For Macmillon India.
14. Shastri Ambikadatta Editor Ayurvedatattva- Sandipika Hindi Commentary on Sushruta Samhita , Chaukhambha Sanskrit Sansthan Varanasi, Edition 2003, Sharirasthana , Chapter no. 3, Verse no. 18
15. Tripathi Brahmanand, Editor Charak Chandrika, Hindi Commentary On Charak Samhita, Chaukhambha Surbharti prakashan, Sharirasthana, Chapter no. 4, Verse no. 20.
16. Vagbhatacharya virachit Ashtang Sangrah SarvangaSundari Vyakhyasahit, Acharya Raghuvir prasad Trivedi, Baidyanath prakashan, Sharirasthana, Chapter no. 2, Verse no. 22.
17. Ashtang hrudayam of Vagbhata Edited with the Vidyotini Hindi Commentary By Kaviraja Atrideva Gupta, Chaukhambha prakashan, Reprint 2021, Sharirasthana , Chapter no. 1, Verse no. 57.
18. Harita Samhita, Shashtasthana, Chapter no. 1, Verse no. 21.
19. Shastri Ambikadatta Editor Ayurvedatattva- Sandipika Hindi Commentary on Sushruta Samhita , Chaukhambha Sanskrit Sansthan Varanasi, Edition 2003, Sharirasthana , Chapter no. 3, Verse no. 28.
20. Ashtang hrudayam of Vagbhata Edited with the Vidyotini Hindi Commentary By KavirajaAtrideva Gupta, Chaukhambha prakashan, Reprint 2021, Sharirasthana , Chapter no. 1, Verse no. 57.
21. Tripathi Brahmanand, Editor Charak Chandrika, Hindi Commentary On Charak Samhita, Chaukhambha Surbharti prakashan, Sharirasthana, Chapter no. 4, Verse no. 21.
22. Vagbhatacharya virachit Ashtang Sangrah SarvangaSundari Vyakhyasahit, Acharya Raghuvir prasad Trivedi, Baidyanath prakashan, Sharirasthana, Chapter no. 2, Verse no. 23.
23. Harita Samhita, Shashtasthana, Chapter no. 1, Verse no. 21.
24. Tripathi Brahmanand, Editor Charak Chandrika, Hindi Commentary On Charak Samhita, Chaukhambha Surbhartiprakashan, Sharirasthana, Chapter no. 4, Verse no. 23.

25. Shastri Ambikadatta Editor Ayurvedatattva- Sandipika Hindi Commentary on Sushruta Samhita , Chaukhambha Sanskrit Sansthan Varanasi, Edition 2003, Sharirasthana , Chapter no. 3, Verse no. 28
26. Vagbhatacharya virachit Ashtang Sangrah Sarvanga Sundari Vyakhyasahit, Acharya Raghuvirprasad Trivedi, Baidyanath prakashan, Sharirasthana, Chapter no. 2, Verse no. 24.
27. Ashtanghrudayam of Vagbhata Edited with the Vidyotini Hindi Commentary By Kaviraja Atrideva Gupta, Chaukhambha prakashan, Reprint 2021, Sharirasthana , Chapter no. 1, Verse no. 57.
28. Harita Samhita, Shashtasthana, Chapter no. 1, Verse no. 22.
29. Tripathi Brahmanand, Editor Charak Chandrika, Hindi Commentary On Charak Samhita, Chaukhambha Surbharti prakashan, Sharirasthana, Chapter no. 4, Verse no. 23.
30. Shastri Ambikadatta Editor Ayurvedatattva- Sandipika Hindi Commentary on Sushruta Samhita , Chaukhambha Sanskrit Sansthan Varanasi, Edition 2003, Sharirasthana , Chapter no. 3, Verse no. 28.
31. Ashtanghrudayam of Vagbhata Edited with the Vidyotini Hindi Commentary By Kaviraja Atrideva Gupta, Chaukhambha prakashan, Reprint 2021, Sharirasthana , Chapter no. 1, Verse no. 58.
32. Vagbhatacharya virachit Ashtang Sangrah SarvangaSundari Vyakhyasahit, Acharya Raghuvirprasad Trivedi, Baidyanath prakashan, Sharirasthana, Chapter no. 2, Verse no. 25.
33. Tripathi Brahmanand, Editor Charak Chandrika, Hindi Commentary On Charak Samhita, Chaukhambha Surbharti prakashan, Sharirasthana, Chapter no. 4, Verse no. 24.
34. Shastri Ambikadatta Editor Ayurvedatattva- Sandipika Hindi Commentary on Sushruta Samhita , Chaukhambha Sanskrit Sansthan Varanasi, Edition 2003, Sharirasthana , Chapter no. 3, Verse no. 28.
35. Vagbhatacharya virachit Ashtang Sangrah SarvangaSundari Vyakhyasahit, Acharya Raghuvirprasad Trivedi, Baidyanathprakashan, Sharirasthana, Chapter no. 2, Verse no. 26.
36. Ashtanghrudayam of Vagbhata Edited with the Vidyotini Hindi Commentary By Kaviraja Atrideva Gupta, Chaukhambha prakashan, Reprint 2021, Sharirasthana , Chapter no. 1, Verse no. 62.
37. Tripathi Brahmanand, Editor Charak Chandrika, Hindi Commentary On Charak Samhita, Chaukhambha Surbharti prakashan, Sharirasthana, Chapter no. 4, Verse no. 2.

38. Shastri Ambikadatta Editor
Ayurvedatattva- Sandipika Hindi
Commentary on Sushruta Samhita ,
Chaukhambha Sanskrit Sansthan Varanasi,
Edition 2003, Sharirasthana , Chapter no.
3, Verse no. 30.

39. Shastri Ambikadatta Editor
Ayurvedatattva- Sandipika Hindi
Commentary on Sushruta Samhita ,
Chaukhambha Sanskrit Sansthan Varanasi,
Edition 2003, Sharirasthana , Chapter no.
3, Verse no. 26-31.

40. Vagbhatacharyavirachit Ashtang
Sangrah SarvangaSundari Vyakhyasahit,
Acharya Raghuvirprasad Trivedi,
Baidyanath prakashan, Sharirasthana,
Chapter no. 5, Verse no. 48-58.

