

EMBRYOLOGY DEPICTED IN THE GARUDA PURANA

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Abstract

Garuda purana is one of the important puranas accepted by our ancestors. Like other puranas this too is considered as a source book of Indian arts, sciences and culture. Garuda Purana (GP) is a kind of encyclopedia in which the most diversified subjects are dealt with. It consists of the stories of the Ramayana, the Mahabharata and Harivamsha, cosmography, astronomy, astrology, omen, portents, chiromancy, medicine, metrics, grammar and politics.

Garuda purana has two parts, viz. acharakanda and dharmakanda. The later kanda is divided into two parts viz. pretakhanda and brahmakhanda. The 32 adhyaya of pretakhanda deals with embryology. GP describes that the unity of the semen and ovum creates fetus. On the first day it is called kalila and on the fifth day it takes the form of bubble (hubbuda). After twenty days it becomes solid and grows like moon. Five elements enter in to body before the completion of the first month. Skin and fatness appears during second month, bones and marrow during third month, hairs and fingers at fourth month. The ears, the nose and the chest take their shape during fifth month, the throat, the stomach; sex organ and anus appear during sixth and seventh months. All the limbs grow fully in the eighth month and it starts to move in the womb. During the ninth month the physical body of the fetus is ready to come out. GP narrates the development of mind, intelligence and internal limbs in detail. It further describes the feelings of fetus. It describes the development of five vital airs, sense organs and action organs.

Thus the paper deals with embryology depicted in the GP and shows that our ancestors knew the developmental process of fetus long back.

Embryology is a science which studies the formation and the development of the embryo. Generally the term embryo denotes the stages of being from conception to birth. The study of embryo started in the west recently i.e. two or three century before. But in India, the study of embryo is seen since Vedic period itself. The copulation which is the root cause of conception was described as Prajapativrata in Prashnopanishat (1-14-15) Vamadevyasaman in Chandogyopanishat (11-13-1) and Vajapeya-Yajna in Brahadaranyakopanishat, (VI-4-3). The development of the embryo is described in the Garbhopanishat vividly. The ayurvedic texts Charakasamhita, Ashtangahrdaya, Sushrutasamhita and others depict the developmental stages of embryo or fetus in detail.

The Garudapurana (GP) is one of the important puranas in Indian religious literature. It is a vaishnavapurana and it is narrated by Lord Vishnu

himself to Garuda. Like Agni purana it is a kind of encyclopedia in which the most diversified subjects are dealt with the stories of the Ramayan, the Mahabharata and the Harivamsha are retold here. The description of cosmography, astronomy, astrology, medicines, metrics, grammar, policies and embryology is seen here.

The 32nd adhyaya of Pretakhanda narrates the matters relating to the embryology. The GP instructs that the first four days of menstruation are forbidden for copulation.¹ Husband and wife should unite each other on fifth day onwards with good mind. According to the GP the mental condition of husband and wife during sexual union will influence on embryo.² The conception conceived on even and on uneven days will come out as male and female child respectively. Woman is considered as field and man is like seed. The GP states that a person having

chewed betanul-palm, having decked with flowers and sandalwood and dressed in good cloth should approach his wife. The notions and the fancies of a woman during union will influence on psychosomatic development of the embryo.³ Hence husband and wife should approach each other with good intention, with cool mind and with love for better progeny.

According to the GP the union of semen and egg forms fetus. It develops in the womb like a moon in the sky. The spirit of life lies always in the semen and it enters into the womb with fertilized egg. Excess of semen and excess of blood play an important role in determining the gender of the embryo.⁴ The union of semen and egg, on first day is known as kalila and it takes form of budbuda (foam) within five days. It takes the shape of flesh with the help of dhatu within two weeks and becomes hard in twenty days and grows gradually.⁵ The fetus develops with five elements and become strong within the end of the first month. The skin and the corpulence take its rise in the second month, the marrow and the bones appear in the third month, the hairs and the fingers in the fourth, the ears, the nose and the chest in the fifth month, the throat and the stomach in the sixth month and the secret parts in the seventh month. All the external limbs and internal organs develop during eighth month and the fetus begins to move in the womb.⁶ It grows and develops perfectly in the ninth month.

The embryo consists of five sense-organs, ten vital airs and ten arteries.⁷ The GP states that skin, bones, artery, hairs and flesh are the five properties of prthvi. Saliva, urine, semen, marrow and blood are the five properties of jala. Hunger, thirst, sleep, laziness and luster are the properties of tejas. Affection, hatred, shame, fear and delusion are the elements of vayu. Contraction, running, jumping, expansion and confinement are also the properties of vayu. Sound, thought, deepness, hearing and transition are the qualities of akasha.⁸

The primary ten nadis (इडा, पिंगला, सुशुम्ना, गान्धारी, गजजिह्वा, पुशा, यषा, अलम्बुशा, कुहू च षम्विनी) reside in

the middle of embryo. The ten vital airs (प्राण, अपान, समान, उदान, व्यान, नागः, कूर्मः, कृकरः, देवदत्त, च धनंजय) take shelter in the mini body. There are three and half crores of hairs on the body, thirty-two teeth, twenty nails and seven lakh hair on the head. The embryo consists of one thousand pala flesh, a hundred pala of blood, ten pala of marrow, twelve pala of corpulence and two kudava semen. The embryo contains three-hundred sixty bones.⁹

The GP further narrates that all the parts of the universe are hidden in the embryo.¹⁰ The patala and other lokas, all the islands and the oceans and all the planets exist in the body of embryo in minute form. The sole of the feet is tala, the upper part of the feet is vitala, the knee is sutala, the lap is mahatala, the thighs are talatala, the secret part is rasatala and waist is patala. In the same way the navel is bhuloka, the stomach part is bhuvarloka, the heart is svarloka, the throat is maharloka, the mouth is janaloka the forehead is tapoloka and the brhamarandhra is satyaloka. Thus all the fourteen parts of the universe are in the human body even at the womb.¹¹ The mountains like मेरु, मन्दर कैलास, हिमालय, निषध, गन्धमादन and रमणगिरि; the islands like जम्बू-शाक-कुश-क्रौंच-शाल्मली-गोमेय-पुष्कर and the oceans like क्षीरोद-सुर-घृत-रस-दधि-स्नादूदक-गर्भोद reside in the body. All the planets also take their place in the body. Thus the whole universe appears in the human body.¹²

The physical body of the embryo grows in the womb of the mother with the help of food and water taken by the mother. The soul residing in the embryo has the memory of its previous births.¹³ It recollects all the deeds done in the previous births and repents for the present birth. The soul thinks that I have taken birth due to my mistakes: hence I will not commit any mistakes in this birth from which I will not get rebirth. It sits in the small place of mother's womb in tight position. Its head sets downwards and it comes out with great pain after the completion of nine months. The vashnavi maya covers the child immediately hence it forgets everything and it begins the new life.¹⁴

The description of the stages of the growth of the embryo explained by the GP is according to ancient Indian medical texts. It should be noted that in ancient times there were no scientific devices to study embryo minutely. Yet our ancient knew all this by keen interest and by the observation only. The Perforation Theory of Marcello Malpighi (1628-1694), The Epigenetic Theory of Casper Friedrich Wolff (1733-1794), The Germ Layer Theory of K.E. Van Baer (1876-1992), The Cell Theory of M.J. Schleiden (1804-1881) and other researches of modern time do not discard the Indian theory. They are all additions to the ancient theory. Our ancients, on the basis of embryological knowledge framed some rules and regulations for pregnant woman.

Our ancients were aware of that the mind and the intelligence of the fetus are very sharp. Therefore they used to advise a pregnant lady to be with good people, to read sacred books and to hear good stories. They knew that the emotions, the ideas and the inclinations of the mother will be influence for the fetus. There are many illustrations in the Puranas and in the epics, which show that the fetus is capable of learning and expressing its emotions as well as its opinions. Pralhad the son of Hiranyakashipu and Kayadhu, learns the Bhagavatadharma when he was in womb of mother. The Mahabharata records that Abhimanyu, the son of Arjuna came to know the

secret of entering Chakravyuha when he was in womb of Subhadra. The king Parikshita expresses his fear in the womb itself when he looks at Brahmastra. The sage Astavakra, while he was in the womb of Sujata finds fault with his father (Khagodara) when he was chanting Vedic mantras. All these illustrations substantiate that the fetus is capable of learning.

Thus the GP describes the growth and development of embryo in detail. The description is according to medical texts of ancient India. It clearly displays the wisdom and scientific knowledge of our ancestors.

References:

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