ISSN No. : 2584-2757
Volume : 03
Issue : 02
DOI : 10.5281/zenodo.18259415
Publisher
ROGANIDAN VIKRUTIVIGYAN PG ASSOCIATION FOR PATHOLOGY AND RADIODIGNOSIS
Reg. No. : MAHA-703/16(NAG)
Year of Establishment – 2016
Impact Factor : 1.013
INTERNATIONAL JOURNAL OF DIAGNOSTICS AND RESEARCH

Critical Analysis of Pauranik Month wise Intrauterine Fetal Development W.S.R To Modern Embryogenesis

Prof. Dr. Subhash Waghe [1], Dr. Pratiksha Rathod [2]

[1] HOD – Dept. of Roga Nidana & Vikruti Vigyana SAM College of Ayurvedic Sciences , Raisen – 464 551 (MP)

[2]HOD - Dept. of Streerog PrasutiRajendra Gode Ayurvedic Medical College, Amravati (MS)

Corresponding author: Dr. Subhash Waghe

Article Info: Published on : 15/01/2026

Cite this article as: - Dr. Subhash Waghe (2026) ; Critical Analysis of Pauranik Month wise Intrauterine Fetal Development W.S.R To Modern Embryogenesis;Inter .J. Dignostics and Research 3 (2) 80-91, DOI : 10.5281/zenodo.18259415

Abstract

Intrauterine month wise foetal development is described from time ancient to time modern. Puranas are the sacred Indian books containing the ancient history of gods, kings of different era. It not only contains the history but the information about various rituals, noble code of conduct, philosophy of life, concept of hell and heaven, worships and pilgrimage. There are some puranas like Agni and Garuda Purana which have detail information about medical science also. But one thing which is surprisingly common among all Puranas is the description of intrauterine month wise foetal development. Although the credit of authoring all the Puranas goes to the Mahrshi Krishnadwaipayan vyasa, but there is little variation in description of month wise foetal development in different puranas. In the present study mainly the references from Shreemad Bhagwat Purana, Agni Puran, Padma Puran, Narad Puran and Markandeya Puran are taken. Ayurveda is the ancient Indian system of medicine which also describes the month wise foetal development. The description of intrauterine month wise foetal development matches with the description given in the Ayurveda. But it also has astonishing similarity with the intrauterine month wise foetal development given in modern medical science. How the ancient scientists came to know about the intrauterine month wise foetal development in that era when there was no any technology to see inside the abdomen is still remains unanswered. One possible answer could be the dissection of dead pregnant women. But this does not solve the answer for intrauterine foetal development given in first month wherein changes are very minute. Modern medical science has achieved a detailed and experimentally verified understanding of embryogenesis and foetal development using ultrasonography, histology, and molecular biology. However, the month wise descriptions given in Pauranik literature, when interpreted scientifically and cautiously, show a structured understanding of intrauterine development. These observations demonstrate that ancient scholars possessed systematic observational knowledge of foetal growth, even without modern technological tools. Therefore, a comparative study of Pauranik month wise foetal development with modern embryology is valuable. It enhances interdisciplinary understanding and encourages respectful scientific evaluation of classical medical literature without exaggeration or dismissal.

Keywords – Embryo, foetus, organogenesis

Introduction :

Puranas are the sacred Indian books containing the ancient history of gods, kings of different era. It not only contains the history but the information about various rituals, noble code of conduct, philosophy of life, concept of hell and heaven, worships and pilgrimage. There are some puranas like Agni and Garuda Purana which have detail information about medical science also. But one thing which is surprisingly common among all Puranas is the description of intrauterine month wise foetal development. Although the credit of authoring all the Puranas goes to the Maharshi Krishnadwaipayan Vyasa, but there is little variation in description of month wise foetal development in different puranas. In the present study mainly the references from Shreemad Bhagwat Purana, Agni Puran, Padma Puran, Narad Puran and Markandeya Puran are taken. Ayurveda is the ancient Indian system of medicine which also describes the month wise foetal development. The astonishing similarity of description of intrauterine month wise foetal development given in Puranas science poses certain questions. The answer about how the ancient scientists came to know about the intrauterine month wise foetal development in that era when there was no any technology to see inside the abdomen is still remains elusive. One possible answer could be the dissection of dead pregnant women. But this does not solve the answer for intrauterine foetal development given in first month wherein changes are very minute. Modern embryology explains that development begins with fertilization, followed by sequential cell divisions of the zygote resulting in cleavage, morula formation, blastocyst development, implantation, gastrulation, and formation of the three germ layers, along with early segmentation of the body during the first month of gestation. A comparable concept of transformation of the fertilized ovum is observed in Pauranik texts, where the embryo undergoes progressive morphological changes described using descriptive terms such as *Kalala* (jelly like), *Budbuda* (Bubble like), and *Peshi* (solid fleshy). Modern medical science has achieved a detailed and experimentally verified understanding of embryogenesis and foetal development using ultrasonography, histology, and molecular biology. However, the month wise descriptions given in Pauranik literature, when interpreted scientifically and cautiously, show a structured understanding of intrauterine development.

Material And Method :

Literary method of research is adopted in present study. All the related references from ancient and modern sciences are explored to come to some logical conclusion.

Review Of Literature :

Foetal Development As Per Agni Purana [1]

As per Agnipurana, foetal development occur as follows :

Embryonic Growth In First Month:

In the first month, the embryo is in the form of semisolid drop (*Prathame Kalala*).

Embryonic Growth In Second Month :

In the second month, embryo gets hardened (*Dwitiye Ghanibhutam*).

Foetal Growth In Third Month :

In the third month, body parts like hands, feet start appearing (*Trutiye Sharir AvayavaHa*).

Foetal Growth In Fourth Month:

In the fourth month, bones, muscles, Skin become prominent (*Chaturthe Asthi Mans Twak*).

Foetal Growth In Fifth Month :

In the fifth month, hairs appear (*Panchame Roma*).

Foetal Growth In Sixth Month :

In the sixth month, foetus starts activating (*Shashthe Cetana*).

Foetal Growth In Seventh Month:

In the seventh month, foetus experiences, pain. The hands are folded near the head. The head is bent (flexed). Foetal activity can be noticed. Foetus is covered in thin membranous sac. Male child acquires, right occipito anterior position. Female child acquires left occipito anterior position. Whereas eunuch foetus acquires transverse position in the uterus. Foetus continues to receive nutrition from mother.

Foetal Growth In Eighth Month:

In the eighth month, the coitus done during eighth month, irritates the foetus. The exertion on the part of mother also makes the foetus uncomfortable. If mother gets diseased then foetus also feel the agony.

Foetal Growth In Nineth Month :

In the third month, during ninth month, due to the excessive contractions (*Prabal Sutika Vata*), foetus forcibly gets expelled out of the uterus through vagina.[1]

Foetal Development :

As Per Bhagwat Puran [2]

As per acharya Kapila (Sankhya Muni), the foetus take birth through the union of sperm and ovum into the womb of a mother as per the deeds of past life.Acharya Kapil Muni had given the ***Garbha Masanumasik Vruddhi*** as under :

Embryonic Growth In First Month :

In the first month, the zygote in 1 night takes the form of '*kalal*' and in five nights it takes the form *'Budbuda'* (Bubble). In 10 nights, it becomes hard like plum seed and hard muscular organ. In 1 month, head start appearing.

Embryonic Growth In Second Month :

In the second month, hands and feet appear and differentiation of organ starts.

Foetal Growth In Third Month:

In the third month, hairs, bones, skin, and genital organs become prominent.

Foetal Growth In Fourth Month:

In the fourth month, all 7 dhatus gets prominent.

Foetal Growth In Fifth Month:

In the fifth month, foetus feels hunger and thirst

Foetal Growth In Sixth Month:

In the sixth month, foetus starts moving in the womb. That time the nourishment from mother, nourishes all the tissues of foetus. He passes meconium. Mother's hot, pungent, salty food, irritates the foetus.

Foetal Growth In Seventh Month:

In the seventh month, At the start of 7^{th} month, foetus starts feeling the irritation and wants to get out because of mild contractions. The foetus in the womb gets upside down with his head towards the vaginal opening of the mother towards the end of 7^{th} month.

Foetal Growth In Eighth Month:

In the eighth month,

Foetal Growth In Nineth Month:

In the ninth month, as soon foetus completes the 9 months and starts the 10^{th} month, the contractions (*Suti Marut*) expel (*Kshipati*) the foetus out of mother's body.

On landing the earth, foetus is surrounded by the blood and stool and becomes restless. At that time his breath stops for some time and then he/she cries loudly. [2]

Foetal Development :

As Per Narad Purana [3]

As per Narada mnuni, foetal development occur as follows :

Foetal Growth In First Month :

In the first month, after the fertilization of egg by sperm in the uterus, on the 5th day, fertilized egg becomes semisolid jelly like (*Kalal*). After 15 days, it becomes like oval piece of flesh (*Palala*). On completion of 1 month, it becomes fleshy oval piece of the size of index finger (*Pradesh matra*) i.e. 6 cm.

Foetal Growth In Second Month:

In the second month, embryo takes the form of foetus.

Foetal Growth In Third Month:

In the third month, body parts like hands, feet and other organs are expressed fully.

Foetal Growth In Fourth Month:

In the fourth month, differentiation of all organs becomes evident.

Foetal Growth In Fifth Month:

In the fifth month, nails are sprouted.

Foetal Growth In Sixth Month:

In the sixth month, the nail bed is differentiated and foetus continue to get nutrition from the umbilical cord.[3]:

Foetal Development :

As Per Padma Purana [4]

Embryonic Growth In First Month

In the first month, the zygote in 1 night takes the form of '*kalala*' and in five nights it takes the form *Budbuda'* (Bubbles). At the end of 1 month, head, neck, spine, shoulder and abdomen start appearing.

Embryonic Growth In Second Month:

In the second month, hands and feet, ribs, lumbar appears and the whole body gradually appears at the end of second month.

Foetal Growth In Third Month:

In the third month, all body joints start appearing.

Foetal Growth In Fourth Month:

In the fourth month, all fingers and organs appear.

Foetal Growth In Fifth Month:

In the fifth month, nose, ears, face becomes prominent.

Foetal Growth In Sixth Month:

In the sixth month of foetal life, enamel, holes in nose and ear becomes prominent.

Foetal Growth In Seventh Month:

At the start of 7th month, foetal life, anus, penis, scrotum, and all joints of the body becomes prominent.

Foetal Growth In Eighth Month:

In the eighth month, all the organs get differentiated along with head and scalp hairs. Foets continue to receive nutrition from mother via umbilical cord.[4]

Foetal Development :

As Per Markandeya Purana [5]

The sperm ejaculated during intercourse unite with the ovum to form the zygote. Then this zygote goes through the transformation in shapes from *Kalala* (Semisolid jelly), *Budbud* (like cluster of Bubbles), *Peshi* (Flesh like). As like the embryo sprout from the seed, the rest of the organs like fingers, legs, eyes, nose, ears, mouth, skin, nails, hairs sprout from this embryo. The embryo grows as foetus in a sac and get nutrition from the mother through

umbilical cord.

Foetal Position In Womb As Per Markandeya Purana:

As like coconut, the foetus stays upside down (Occipito anterior) in the intrauterine life and grows. It's both thighs and knees lie together and hands stays inside the thighs and knees. Thumb is upward and fingers stay in front of the thighs. Eyes remain on the knee joint and nose in the middle of the thighs. Both arms are adjacent to the lateral of the thighs. Staying in this position, foetus grows in intrauterine life. Foetus gets nutrition from mother though umbilical cord. [5]

Foetal Development :

As Per Modern Science [6] [7]

As per the modern science, in first month embryonic developments takes place as follows :

1st Month (4 Weeks old Foetus):

During 1st week, Zygote undergoes cell division producing cluster of cells of same size but no significant growth. This stage is called as cleavage which converts into morula and blastocyte stage. The 4 cell divisions lead to solid ball of 16 cells which is termed as **morula**. The 7 clevage / cell division leads to the formation of dense ball of 128 cells which is termed as **blastula**. After this, rotational arrangement of blastomeres leads to the formation of blastocyte. This blastocyte gets implanted into the uterine wall signalling the formation of embryo. During 2nd week, blastocyte undergoes trophoblaste stage with implantation in uterine wall and with outer cell layer (tropoectoderm) and inner cell mass (endoblast). Fluid collects between outer and inner mass and the morulla is converted into vesicle called as the blastodermic vesicle. Thus. embryo becomes bilaminar. The cells of trophoblast do not contribute in the formation of embryo proper but they contribute in formation of ectoderm of chorion and placenta. During 3rd week, blastoderm becomes trilaminar with 3 layers. This stage characterizes with notochord, gastrulation, somitogenesis and neurogenesis. Somitogenesis begins with the formation of somitomeres (whorls of the concentric mesoderm) from which future somites (primitive segments) are produced. These tissue blocks, differentiates into skeletal muscle, vertebrae and dermis of all vertebrae. During gastrulation, cells migrate to the interior of the blastula producing 3 distinct germ layers as outer ectoderm, middle mesoderm and inner endoderm. Each of the layer give rise to certain tissues of the body. Neural fold, head fold and cardiac primordium also starts growing.During 4th week, heart, pharyngeal arches start developing.Embryo is of the size of poppy seed (2 mm or 0.08 inch)

2nd Month (8 Weeks old Foetus) :

As per the modern science, in second month embryonic developments takes place as follows :

During 5th week, rudiments of liver, gut starts developing, leg buds, nasal plate and hand plate start growing.During 6th week early face starts developing. Auricular and foot plate start growing. Fingers start sprouting.During 7th week, head and limb starts developing. Ossification commences, straightening of trunk occur. **8th week marks the last stage of embryonic development.** Upper limbs become longer and bent at elbow. Hands and feet turn inward. Eyelids and external ear start appearing. Head becomes round. **After this stage embryo is called as foetus.**

3rd Month (8 - 12 Weeks old Foetus):

As per modern science, from 3rd month onwards, embryo is called as foetus with all body parts which start growing simultaneously.

- Foetus become 2-4 inches long
- Weighs 29 – 30 g
- All body parts start growing simultaneously.
- The arms, hands, fingers, feet and toes are fully formed

4th Month (12 - 16 Weeks old Foetus):

- Foetus is 4 -5 inches
- Weighs 113- 141 grams
- Heart and blood vessels are fully formed
- Reproductive organs start developing Hairs start growing, bones become denser
- Eyes and Ear start growing
- Fingers & toes are well defined

5th Month (16 - 20 Weeks old Foetus):

- Foetus is 10 inches long
- Weighs ½ to 1 pound
- Develops muscles & exercises them
- Foetal movements called quickening
- Nails are formed
- Eyes and Eyebrows become prominent

6th Month (20 - 24 Weeks old Foetus):

- Foetus is 12 inches long
- Weighs 907 gm
- Finger toe prints are visible
- Opens eyes
- Responds to sound by moving

7th Month (24 -28 Weeks old Foetus):

- Foetus is 14 inches long
- Weighs 1.5 to 2 kg
- Matures further

8th Month (28 - 32 Weeks old Foetus):

- Foetus is 18 inches long
- Weighs 2.5 Kg
- Develops further
- Most Internal systems are developed
- Can see & hear

9th Month (32 - 36 Weeks old Foetus):

- Foetus is 17 – 19 inches
- Weighs 2.5 to 3.5 Kg
- Mature further
- Baby respond to sound, light, touch
- lungs area almost mature [6] [7]

Observations & Results :

Sr.	1st Month
Agni Puran	the embryo is in the form of semisolid drop (*Prathame Kalala*)
Bhagwat Puran	zygote in 1 night takes the form of '*kalal*' and in five nights it takes the form *'Budbuda'* (Bubble). In 10 nights, it becomes hard like plum seed and hard muscular organ. In 1 month, head start appearing.
Padma Puran	zygote in 1 night takes the form of '*kalal*' and in five nights it takes the form *'Budbuda'* (Bubbbles). At the end of 1 month, head, neck, spine, shoulder and abdomen start appearing.
Narad Puran	after the fertilization of egg by sperm in the uterus, on the 5th day, fertilized egg becomes semisolid jelly like (*Kalal*). After 15 days, it becomes like oval piece of flesh (*Palala*). On completion of 1 month, it becomes fleshy oval piece of the size of tip of index finger (*Pradesh matra*) i.e. 1.5 cm. (Half inch)

Sr.	1st Month
Markandeya Puran	The sperm ejaculated during intercourse unite with the ovum to form the zygote. Then this zygote goes through the transformation in shapes from *Kalala* (Semisolid jelly), *Budbud* (like cluster of Bubbles), *Peshi* (Flesh like).
Modern Medical Science	During 1st week, Zygote undergoes cell division producing cluster of cells of same size but no significant growth. This stage is called as cleavage which converts into morula and blastocyte stage. The 4 cell divisions lead to solid ball of 16 cells which is termed as **morula**. The 7 clevage / cell division leads to the formation of dense ball of 128 cells which is termed as **blastula**. After this, rotational arrangement of blastomeres leads to the formation of blastocyte. This blastocyte gets implanted into the uterine wall signaling the formation of embryo. During 2nd week, blastocyte undergoes trophoblaste stage with implantation in uterine wall and with outer cell layer (tropoectoderm) and inner cell mass (endoblast). Fluid collects between outer and inner mass and the morulla is converted into vesicle called as the blastodermic vesicle. Thus. embryo becomes bilaminar. During gastrulation, cells migrate to the interior of the blastula producing 3 distinct germ layers as outer ectoderm, middle mesoderm and inner endoderm. Each of the layer give rise to certain tissues of the body. Neural fold, head fold and cardiac primordium also start growing. During 4th week, heart, pharyngeal arches start developing.

Sr.	2nd Month
Agni Puran	embryo gets hardened (*Dwitiye Ghanibhutam*)
Bhagwat Puran	hands and feet appear and differentiation of organ starts.
Padma Puran	hands and feet, ribs, lumbar appears and the whole body gradually appears at the end of second month.
Narad Puran	embryo takes the form of foetus.
Markandeya Puran	As like the embryo sprout from the seed, the rest of the organs like fingers, legs, eyes, nose, ears, mouth, skin, nails, hairs sprout from this embryo.
Modern Medical Science	During 5th week, rudiments of liver, gut starts developing, leg buds, nasal plate and hand plate start growing.During 6th week early face starts developing. Auricular and foot plate start growing. Fingers start sprouting. During 7th week, head and limb start developing. Ossification commences, straightening of trunk occur. **8th week marks the last stage of embryonic development.** Upper limbs become longer and bent at elbow. Hands and feet turn inward. Eyelids and external ear start appearing. Head becomes round. **After this stage embryo is called as foetus.**

Sr.	3rd Month
Agni Puran	body parts like hands, feet start appearing (*Trutiye Sharir AvayavaHa*)
Bhagwat Puran	hairs, bones, skin, and genital organs become prominent.
Padma Puran	all body joints start appearing.
Narad Puran	body parts like hands, feet and other organs are expressed fully.
Markandeya Puran	The embryo grows as foetus in a sac and get nutrition from the mother through umbilical cord.
Modern Medical Science	All body parts start growing simultaneously.The arms, hands, fingers, feet and toes are fully formed

Sr.	4th Month
Agni Puran	bones, muscles, Skin become prominent (*Chaturthe Asthi Mans Twak*).
Bhagwat Puran	all 7 dhatus gets prominent.
Padma Puran	all fingers and organs appear
Narad Puran	differentiation of all organs becomes evident.
Markandeya Puran	
Modern Medical Science	Heart and blood vessels are fully formed Reproductive organs start developing hairs start growing, bones become denser Eyes and Ear start growing Fingers & toes are well defined

Sr.	6th Month
Agni Puran	foetus starts activating (*Shashthe Cetana*)
Bhagwat Puran	foetus starts moving in the womb. That time the nourishment from mother, nourishes all the tissues of foetus. It passes meconium. Mother's hot, pungent, salty food, irritates the foetus.
Padma Puran	enamel, holes in nose and ear becomes prominent.
Narad Puran	the nail bed is differentiated and foetus continue to get nutrition from the umbilical cord.
Markandeya Puran	
Modern Medical Science	Finger toe prints are visible. Opens eyes. Responds to sound by moving

Sr.	7th Month
Agni Puran	Foetus experiences, pain. The hands are folded near the head. The head is bent (flexed). Foetal activity can be noticed. Foetus is covered in thin membranous sac. Male child acquires, right occipito anterior position. Female child acquires left occipito anterior position. Whereas eunuch foetus acquires transverse position in the uterus. Foetus continues to receive nutrition from mother.
Bhagwat Puran	foetus starts feeling the irritation and wants to get out because of mild contractions. The foetus in the womb gets upside down with his head towards the vaginal opening of the mother towards the end of 7th month.
Padma Puran	anus, penis, scrotum, and all joints of the body becomes prominent.
Narad Puran	----
Markandeya Puran	As like coconut, the foetus stays upside down (Occipito anterior) in the intrauterine life and grows. It's both thighs and knees lie together and hands stays inside the thighs and knees. Thumb is upward and fingers stay in front of the thighs. Eyes remain on the knee joint and nose in the middle of the thighs. Both arms are adjacent to the lateral of the thighs.
Modern Medical Science	Matures further

Sr.	8th Month
Agni Puran	coitus done during eighth month, irritates the foetus. The exertion on the part of mother also makes the foetus uncomfortable. If mother gets diseased then foetus also feel the agony.
Bhagwat Puran	passes meconium

Sr.	8th Month
Padma Puran	all the organs get differentiated along with head and scalp hairs. Foetus continue to receive nutrition from mother via umbilical cord
Narad Puran	-----
Markandeya Puran	Staying in this position, foetus grows in intrauterine cavity. Foetus gets nutrition from mother though umbilical cord.
Modern Medical Science	Most Internal systems are developed.Can see & hear

Sr.	9th Month
Agni Puran	due to the excessive contractions (*Prabal Sutika Vata*), foetus forcibly gets expelled out of the uterus through vagina
Bhagwat Puran	the contractions (*Suti Marut*) expel (*Kshipati*) the foetus out of mother's body.
Padma Puran	----
Narad Puran	----
Markandeya Puran	----
Modern Medical Science	respond to sound, light, touch lungs area almost mature

Discussion :

Ancient Pauranik descriptions of month wise intrauterine foetal development, when critically examined in the light of modern embryology, reveal several areas of conceptual similarity as well as certain differences. [1-5]Modern medical science studies early human development in a detailed weekly manner, especially during the embryonic period, whereas Pauranik literature presents the same developmental events broadly on a monthly basis [1-4]. This difference in time scale reflects variation in observation methods rather than a contradiction in biological understanding.

Modern embryology explains that development begins with fertilization, followed by sequential cell divisions of the zygote resulting in cleavage, morula formation, blastocyst development, implantation, gastrulation, and formation of the three germ layers, along with early segmentation of the body during the first month of gestation.[6,7] A comparable concept of transformation of the fertilized ovum is observed in Pauranik texts, where the embryo undergoes progressive morphological changes described using descriptive terms such as *Kalala, Budbuda*, and *Peshi.* [1–5]

According to Bhagavata Purana, the fertilized ovum attains a jelly like consistency termed *Kalala* within one night, transforms into a bubble-like structure *Budbuda* within five nights, and becomes firm and seed like within ten nights. [2] By the end of the first month, the beginning of head formation is described[2] Padma Purana further adds that structures such as neck, spine, shoulders, and abdomen also begin to appear during the same period [4] These descriptions correspond broadly with the stages of cleavage, blastocyst formation, implantation, and early organ primordia formation described in modern embryology during the first four weeks of gestation [6,7]

The terms *Kalala* and *Budbuda* can be correlated conceptually with early cleavage and blastocyst stages, as both represent a soft, semi fluid, and undifferentiated state of the embryo [2,4,5] Bhagavata Purana also mentions that the embryo becomes firm and seed like by the end of the second week, which may be compared with trophoblastic development and implantation, although the terminology differs

[2] Thus, even though Pauranik science presents development in a narrative and descriptive form, the underlying biological sequence aligns with modern embryological events [6,7]

Narada Purana uniquely mentions the size of the embryo at the end of the first month, describing it as *Pradesh Matra*, equivalent to the tip of the index finger. [3] This size is larger than what is described in modern embryology, where the embryo at four weeks measures approximately two millimeters. [6] This discrepancy may be attributed to the absence of precise measuring tools in ancient times, reliance on gross estimation, or symbolic expression rather than exact measurement. [3] It should not be interpreted as a literal anatomical measurement. Therefore, this variation does not invalidate the developmental concept described.

Modern embryology states that the embryonic period ends at the completion of eight weeks, after which the developing organism is termed a foetus [6,7] During the second month, limb buds elongate, facial features begin to form, external ears and eyelids appear, and early ossification starts [6] Padma Purana describes the appearance of hands, feet, ribs, lumbar region, and gradual formation of the whole body during the second month [4] Narada Purana clearly states that the embryo attains foetal form at the end of the second month [3] This directly corresponds with the modern medical classification of transition from embryo to foetus at eight weeks [6]

The accuracy with which this transition is described in Pauranik literature is notable [1,4] However, it is important to interpret this cautiously and scientifically. These descriptions may have arisen from careful observation of aborted foetuses, stillbirths, or anatomical studies available at that time, rather than technological visualization [1,5] Such observational knowledge was common in ancient medical traditions.

In the third month, modern medical science explains that all major body parts are formed and begin to grow proportionately [6] Fingers and toes are well differentiated, and external genitalia begin to show early development [6] Bhagavata Purana mentions prominence of hair, bones, skin and genital organs during this month. [2] Narada Purana also notes full expression of limbs and organs. [3] Padma Purana describes the appearance of all body joints. [4] These observations show close agreement with the organogenesis and differentiation described in modern embryology during the third month [6,7]

During the fourth month, modern science states that the cardiovascular system becomes well established, bones become denser, muscles develop, and sensory organs continue maturation[6] . Padma Purana mentions complete appearance of fingers and organs[4] . Agni Purana highlights prominence of bones, muscles and skin [1], while Narada Purana emphasizes clear differentiation of organs (3). Both systems therefore agree that the fourth month represents a phase of structural consolidation and functional maturation [1,3,4,6]

In the fifth month, modern medicine identifies foetal movements perceived by the mother as quickening, along with nail formation and development of facial features. [6] Pauranik texts similarly describe nail formation, development of facial structures, and appearance of hair. [1.4] Bhagavata Purana uniquely mentions the experience of hunger and thirst by the foetus during

this period. [2] From a modern perspective, this may be interpreted as increased neuromuscular activity and sensory responsiveness, which manifests clinically as foetal movements.[6] Thus, although the expression differs, the physiological implication appears comparable.

Modern science notes that during the sixth month, the foetus responds to sound, opens its eyes, and exhibits increased motor activity. [6] Agni Purana and Bhagavata Purana both describe increased foetal movement during this period.[1,2] Bhagavata Purana also mentions passage of meconium, which aligns with gastrointestinal maturation known in later gestation. [2] Padma Purana refers to development of enamel and nasal openings, indicating continued differentiation of sensory and skeletal structures. [4] These observations show parallel understanding of advancing foetal activity and maturation.

From the seventh to ninth months, modern obstetrics describes progressive maturation of internal organs, development of sensory perception, and assumption of cephalic presentation. [6] Agni Purana describes flexed posture of the foetus, folded limbs, perception of discomfort, and active movement. [1] Markandeya Purana gives a remarkably detailed description of foetal posture in utero, closely resembling the modern description of flexed occipito anterior position [5] Such descriptions strongly suggest careful anatomical observation.

Some Pauranik texts mention gender based foetal positions. [1] This aspect does not currently have scientific validation and requires cautious interpretation. It may represent symbolic or observational assumptions rather than biological law. Therefore, such statements should be viewed as descriptive traditions rather than established physiological principles.

Bhagavata and Agni Purana describe increasing uterine contractions and expulsion of the foetus during the ninth month, which corresponds with the modern understanding of parturition initiated by hormonal and mechanical factors after foetal maturity [1,2] Modern obstetrics explains that labour may begin after thirty-six weeks due to oxytocin signaling and uterine stretch, supporting the general concept described in ancient texts [6]

Modern medical science has achieved a detailed and experimentally verified understanding of embryogenesis and foetal development using ultrasonography, histology, and molecular biology .[6,7] However, the month wise descriptions given in Pauranik literature, when interpreted scientifically and cautiously, show a structured understanding of intrauterine development. [1,5] These observations demonstrate that ancient scholars possessed systematic observational knowledge of foetal growth, even without modern technological tools.

Therefore, a comparative study of Pauranik month wise foetal development with modern embryology is valuable [6,7]. It enhances interdisciplinary understanding and encourages respectful scientific evaluation of classical medical literature without exaggeration or dismissal. Such studies should always maintain critical reasoning, anatomical accuracy, and modern scientific validation.

Conclusion :

Month-wise Intrauterine Foetal development is very well described in ancient Indian Pauranik literature showing structured understanding of

intrauterine development. On comparative analysis, it is concluded that the Pauranik description of Month-wise Intrauterine Foetal development matches with the modern scientific description with reasonable accuracy. Such type of study is required to promote interdisciplinary understanding for respectful scientific evaluation of classical medical literature

References :

1. Krishna Dwaipayan Vyasa, Agni Purana, Chapter no. 369, verse no. 16-18, 6th reprint edition, Gitapress Gorakhpur 730005, 2005, pg. 813

2. Krishna Dwaipayan Vyasa, Shreemad Bhagwad Purana, Chapter no. 31, verse no. 1-10 and 22-24, 6th reprint edition, Gitapress Gorakhpur 730005, 2005, pg. 307-309

3. Krishna Dwaipayan Vyasa, Narad Purana, Chapter no. 23, verse no. 9-12, 6th reprint edition, Gitapress Gorakhpur 730005, 2005, pg. 120

4. Jayadayal Goyadanka (editor), Padma Puran of Krishna Dwaipayan Vyasa, chapter 66/30-38, 29th reprint edition, published by Geetapress, Gorakhpur – 273005, 2011, pg. 302-303

5. Krishna Dwaipayan Vyasa, Markandeya Purana, Chapter no. 11, verse no. 6-11, 6th reprint edition, Gitapress Gorakhpur-730005,2005, pg. 34

6. D C Dutta. Textbook of Obstetrics. New Central Book Agency. 1994..

7. O Rahilly R, Muller F. Developmental stages in human embryos. Carnegie Institution of Washington. 1987.

Declaration :

Conflict of Interest : None

ISSN: 2584-2757

DOI : 10.5281/zenodo.18259415

Dr. Subhash Waghe Inter. J.Digno. and Research