

AN ANALYTICAL OUTLOOK ON CONCEPT OF FOETAL ANOMALIES IN
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ABSTRACT

Ayurveda science is one of the most ancient Science and is crystal clear in it. In the present modern era, for maintaining the identity of *Ayurveda*; it is necessary to prove that the knowledge available in our ancient *Samhita* is absolutely correct with respect to the modern science. Human body is a miracle of the nature. If you believe in god, you can call it a gift from god. Creation of human body was not a random accident of the nature. It is the work of cosmic intelligence divinely planned for a definite higher purpose. Occurrence of human body in proper shape, size and weight is a wonder of nature. *Ayurveda* has a special contribution in reaching *Moksha* through a proper channel i.e; *Dharma Artha, Karma* and then *Moksha*. There are so many deformities occur at the time of birth or after birth. The reason behind the deformities is varied. According to *Acharya Sushruta* most of the *Garbhaj Vikaritiya* (fetal anomalies) is result of karma of previous habitats (*Papkarma*), *Poorvakarma* etc. Some deformities occurs due to *Bija Dosha* (Sperm & Ovum deformities) means heredity, some deformities due to *matrij vikrit aahar and vihar* (faulty diet and behavior) means congenital deformities and others due to insult or non fulfillment of desires of pregnant mother during pregnancy. All those things which are required by mother during pregnancy and those which are not provided to the mother can be the cause of fetal deformities. Modern science has proved all the fetal anomalies scientifically with the help of various equipments. As *ayurveda* scholar there is need of analytical outlook on *Garbhaj vikritiya* (fetal Anomalies) and there etiopathogenesis in context of *Ayurveda* so that it could help in knowledge, prevention and management of various fetal anomalies.

KEYWORDS: *Ayurveda, Garbhaj vikritiya, Bija Dosha*, fetal Anomalies, etiopathogenesis.

INTRODUCTION

Science is the result of curiosity of human being through which human being has studied, analyzed and come to the results of various natural process occurring in body. Today practically and scientifically the existence of everything has been proved. In the history of embryonic development some incidences are happened, which causes developmental abnormalities of body. It is proved that body and its organs have specific anatomy and everybody has specific size and shape. These all organs have various natural limitations. If they cross their limitations, it called abnormalities. If this development goes for any other size and shape (other than human), it called monster. All the fetal abnormalities are developed in starting weeks of fetal development but some anomalies may happen even after birth.^[1]

Ayurveda, being a part of this science also needs a deep research study for proving all the facts established by

Acharya in ancient era. It is the universal fact that embryo develops by the fusion of male and female gametes. The same fact was mentioned in all the *Ayurvedic Samhita* in ancient time that *Garbha* is formed by fusion of *Shukra* (Sperm), *Shonita* (Ovum) and *Jiva* (Soul) which grows up with the help of nutrition received by *Aahar Rasa* of mother throughout the gestational period. Along with *Shukra* and *Shonita* other supplements like *Garbha Samagri*, (*Ritu, Kshetra, Ambu, And Bija*), *Shadbhavas, Garbhini-paricharya* etc. are essential for development of *Garbha*. *Acharya* has mentioned that these supplements should be present together. Absence of any one of these factor may lead to complication in *Garbha* or may be possible that *Garbha* does not form.

According to *Ayurveda* the union of *Shukra* (Sperm), *Artava* (Ovum) and *Atma or Jiva* (Soul) inside the *Kukshi* (Uterus) is known as *Garbha* (Zygote, Embryo or

Foetus). Besides *Atma*, the association of *Prakriti* and *Vikara* are also essential after development of arms, legs, tongue, nose, ears, and hips etc. body-parts, it is termed as *Sharira*.

According to modern science the 23 chromosomes of the female Pronucleus and 23 of the male Pronucleus get mixed up and form 23 pairs. These 46 Chromosomes undergo changes like those in a typical mitotic division leading to the formation of an embryo having two cells. After cleavage, division of the zygote, formation of Morula, Blastocyst and its implantation, differentiation of Trophoblast and Chorion, appearance of Bilaminar and Trilaminar Germ Disc takes place accordingly. After that it gets characterised by the changes of the shape and external appearance of the embryo. After the formation of three germinal layers, each of the three germ layers undergoes individual differentiation and most of the tissue and organs of the body are formed.^[2]

In Ayurveda the *Shadbhava* are the factors which are responsible for the formation of foetus. While in modern the maternal, paternal, hereditary, environmental, and nutritional aetiological characters are the factors which are responsible for the formation of the foetus.

Concept Fetal anomalies (*Garbhaj Vikritiya*) in Ayurveda

According to Big Bang theory proposed by Lamaitre, the entire universe was compacted into a teeny tiny little ball, which, after randomly coming into existence for no apparent reason in the first place, exploded into all space, time, matter and energy in an instant. Firstly nucleic acid formed by amino-acids and then origin of life occurred. So that nucleic acid is the basic particle from which life originated. In other words we can say that gene & chromosomes are the basic particles for formation of life.

Creation of human body was not a random accident of the nature. It is the work of cosmic intelligence divinely planned for a definite higher purpose. Occurrence of human body in proper shape, size and weight is a wonder of nature. Some deformities occur at the time of birth and some after birth. The reason behind the deformities is varied. Some deformities occurs due to *Bija Dosha* means heredity, some deformities due to *Matrij Vikrit Ahar* and *Vihar* (faulty diet and behavior of mother) means congenital deformities and others due to "*Dauhritya Avmananakrit*" means those things which is required by mother during pregnancy and those which are not provided to the mother can be the cause of foetal deformities. Human body comprises of six *Dhatus* (elements), five *Mahabhuta* (in their suitable form) and *Aatma* (consciousness) during his living period.

Each and every *Mahabhuta* have its own work in formation of the embryo. If the *Tejo Dhatu* Does not reach the *Drstibhaga* (area of vision in the eyes), then the foetus will be *Jatyandha* (born blind), when it (*Tejo Dhatu*) combines with blood, it produces *Raktaksha* (brown coloured eyes); when combines with *Pitta* it produces *Pingaksha* (yellow eyes), with *Sleshma* (*Kapha*) it produces *Shuklaksha* (white coloured eyes) and when combines with *vata*, it produces *Vkritaksha* (abnormal/irregular eyes).^[3]

Acharya Sushrut indicated towards hereditary & congenital disease like – *Kustha*, *Arsh*, etc. in the *aadibalpravrti*, means the disease which occurs due to vitiated *Shukra* and *Artva*. So all the "*Garbhaj Vikritiya*" can be included in "*Adibal Pravritt Roga*", because all that types of deformities are due to deformed sperm or ovum.^[4] Acharya Charaka has indicated as incurable disease which occurs due to "*Bijadosha*".^[5] Like that another "*Kulaja Vikara*" is not curable which occur due to "*Bija Dosha*". Hereditary disease occurs due to the genetic vitiation and it can't be cured.

Causes of *Garbhaj Vikritiya* (fetal anomalies)

Sushruta says that the fetus having shape of snake, scorpion or field pumpkin etc. are the results of sins or bad deeds. Due to vitiation of *vayu* and insult or non fulfillment of *Dauhridini* (desires of pregnant mother) the fetus may become humpbacked, maim or crooked armed, lame, dumb and nasal voiced. Dilating the same he writes further that this non fulfillment of *Dauhridini* results in birth of crooked-legs, idiot, dwarf, irregular-shaped eyes or absent-eye in child. Desires of what -so-ever *indriya* are neglected or not provided to mother, the foetus develops abnormality of the same. Thus, in short atheism of parents, bad deeds of previous life (of the foetus) and aggravation of *Vayu* are three causes of teratologic abnormalities.^[6]

Due to the abnormalities of *Bija* (ovum and sperms), *Atma-Karma* (deeds of previous life), *Ashayadosha* (deformity in uterus), *Kaala* (time factor or abnormality of *Ritukala*) and dietetics along with mode of life of mother, the vitiated *Dosha* produce abnormalities of foetus, affecting its appearance, complexion and *Indriya*. As a tree fallen in stream of water of a river gets disfigured due to effect of (being knocked by) woods, stones current of flowing water, similarly the aggravated *Dosha* situated in *Kukshi* (Uterus) disfigure the foetus.

Table no. 1 Shows the Causes of *Garbhaj Vikritiya*(fetal anomalies) according to Ayurveda.^[7,8]

Sr. no.	Causes of <i>Garbhaj Vikritiya</i> (foetal anomalies)	
	According to <i>Charak Samhita</i>	According to <i>Sushrut Samhita</i>
1	<i>Beejadosha</i> (deformity in sperm or ovum)	<i>Pap karma</i> (sins or bad deeds)
2	<i>Atmakarmadosha</i> (deeds of previous life)	<i>Dauhridini ki avmanana</i> (no fulfilment of desires)

		of pregnant mother)
3	Ashayadosha(deformity in uterus)	Mata-pita ka Nastikya (Atheism of parents)
4	Kaala Dosha(time factor or abnormality of Ritukala)	Purvakarma (bad deeds of the parents or foetus of previous life)
5	Mata ka Aahar- Vihar (dietetics behaviour of mother)	

1. Beejadosha (deformity in sperm or ovum)^[9]

Acharya Charaka has explained further that teratologic abnormalities depend upon the condition of *bija*, not on the physical status of couple, or in other words what-so-ever part of *Beeja* is defective, the body part developing from that portion of *Beeja* will be abnormal. Any organic abnormality cannot occur without abnormality of corresponding portion of *Beeja*. For example, if the portion of *Beeja* of a person suffering from *Kustha* (skin disorder), has defect in the region which is responsible for skin formation, may produce *Kustha* in the born child, but if that portion is normal then the child will be healthy. The same will happen in the case of child whose father is blind.

Various dietetic regimens of pregnant woman may affect the *Beeja*. If her entire *Beeja* becomes affected then she will not conceive, but, if a small portion is defective then the born child will have the abnormality of corresponding body part of maternal origin. The view of *Charaka* has been further supported by *Bhela*.

Chakrapani has explained various terms like *Beeja* and *Beeja-Bhagavayava* (seed-part). Parts of the seed, which are concerned with the development of different organs, are called seed-parts (chromosomes). He further explains that the human sperm and ovum are nothing but a collection of *Beeja-Bhagavayavas* (Chromosomes), corresponding to every organ and lead to the creation of an individual made up of organs specific to that species.

2. Atmakarmadosha (Defects due to deeds of previous life)

It has been recognized very well by Ayurveda that unreligious and forbidden acts of prior existence are the causes of some specific diseases. Sushruta has shown this relationship between congenital malformation and pervious acts of the parents and also of the child. The foetus may have different shape of snake, scorpion or field-pumpkin etc. These malformed features are the result of sins or bad deeds of previous life. Therefore, the malformations of the child should be considered due to evil deeds of his parents, or to the effects of his own bad deeds in a prior existence or to the aggravated condition of the vitiated humours. *Poorvjanamkrita Karma* is responsible for the foetal anomalies deeds of pervious life which was done by *Jiva* the factors causes.

3. Ashayadosha (deformity of uterus)

Any defect in *Ashaya* (especially uterus) may cause congenital malformation in foetus. The environment of the growing foetus may be changed due to defects in genital organs including liquor amnii (especially its

amount), causing fetal anomalies. Structural or functional deformity of body of uterus, ovary or fallopian tube may cause foetal anomalies. Various types of *Yoni Vyapada* also causes deformity in *Garbhashaya*.

4. Kaala Dosha (time factor or abnormality of Ritukaala)

The word '*Kaala*' has been interpreted in many ways by ancient Ayurvedic scholars. It may be seasonal variation like cold, warmth and rain etc. *Kala* also implies age of the parents. While explaining the present reference, it will be quite appropriate to keep in views the references of *Kashyapa Samhita*. In this texts the *Kaala* has been considered for denoting *Puhspa-Kaala* (menstrual period), *Beeja Kaala* (ovulation period) and *Garbhavastha Kaala* (gestational period). The ancient scholars have described certain rules to be followed by women during these three periods. If these rules are not followed properly, it may cause bad effect on the growing foetus.

Effects of various Kaala (time periods) on Garbha(foetus)

(a). Age of the parents

Most of the ancient texts are of the view that male and female become sexually mature upto the age of twenty five and sixteen years, respectively. Therefore, they have recommended attempting for achievement of good progeny, only after attaining this age. *Charaka* has explained this fact and said that if a woman with age below sixteen years is impregnated by a man of twenty five, either the woman will not conceive or she will have intra-uterine-death of foetus. In case the child is delivered alive, the life span of delivered child shall be shorter or will have weak organs, ill health and deformed body parts. Other scholars have also considered this fact.

Modern medical science also accepts the effect of maternal age on foetus. Premature births are relatively common among very young women. All the Trisomy syndromes (Down's syndrome etc.) are found to have a significant relationship to maternal age, the frequency of Trisomic births increasing with increasing maternal age. It has been considered that perhaps some effect of ageing in the ova of older mothers makes them more prone to non-disjunction.

(b). Effect of Ritu-Kaala (menstrual period)

It has been advised that a man should not perform coitus with his wife during *Ritu-Kaala*, especially in first three days because conception in these days may result in a defective or even dead child. The views of various scholars are summarized in the Table2.

Table No. 2 shows the effect of conception in *Rtu-Kaala* on the fetus according to ayurveda.

Sr no.	Days of menstrual period	Effect of conception in <i>Rtu-Kaala</i>
1	1 st day	No pregnancy or pseudocyesis or intra-uterine-death (IUD) or death of baby occurs immediate after delivery (still birth)
2	2 nd day	Abortion or IUD or still birth.
3	3 rd day	Deficient or defective body parts with short life-span.
4	4 th day	Foetus grows well and is delivered healthy and normal with all body parts.

If the woman during her menstrual period does not follow the rules, the vitiated *dosha* reached in uterus and the fetus may produce various abnormalities. Sushruta

has stressed upon this point and has given a long list of abnormalities produced in foetus due to non-fulfilment of prescribed act/rules.

Table No.3: shows restricted acts for women during menstrual period and their effects on fetus

Sr. no.	Restricted acts during menstrual period	Effect on fetus/child
1	<i>Divaswap</i> (Day sleeping)	Over sleepy child
2	Use of <i>anjana</i>	Blindness
3	Weeping	Abnormal eyes
4	Bathing and anointing	Saddish
5	<i>Abhyanga</i> (Oil massage)	Skin disorders
6	Nail cutting	Abnormal nail
7	Racing fast	Wanton or fickle
8	Laughing	Black color of teeth, lip and tongue
9	Over talking	Over talkative
10	Over hearing	Deafness
11	Combing	Baldness
12	Excessive exercise	Insane
13	Scrapping or digging of earth	Falls during walking
14	Use of <i>nasya</i> (inhalation)	Menstrual abnormalities

Astangsangrha has enumerated the cause as impregnation of a woman of less than sixteen years of age, conception during first three days of menstrual flow, abnormality in *Shukra* and *Artava* and due to bearing-down effects made in absence of labour pains also deliver a *Vikrat Garbha*. Very young or old woman should not be impregnated. If a woman below sixteen is impregnated by a man of below twenty five, either she will not conceive, or if at all conceives, she will have intrauterine death of the foetus; if the child is born, it would not live long or will have weak organs, ill health, deformed body part etc. Aged woman also should not be impregnated.^[10]

5. Mata ka Aahar-Vihar (Diet and Behavior)

The foetus is wholly dependent on mother, therefore, her diet and other activities may affect the growing foetus during pregnancy. By keeping this fact in mind, the woman desirous of having an ideal offspring should discard harmful diets and activities. This awareness existed even in very early periods. Use of cow's flesh by pregnant woman may also cause congenital anomaly in the foetus. In *Brhadaranyakopanishad*, there is description of dietetic regimen prescribed to both the partners, for better progeny.

Pap karma

Acharya Sushruta says that the foetus having shape of snake, scorpion or field- pumpkin etc. are the result of sins or bad deeds^[11]

Dauhridya ki avmanna(non- fulfilment of longings during pregnancy)^[12]

The psychology of pregnant woman may also affect the foetus growing in her womb. *Ayurvedic* scholars like *Charaka* and *Sushruta* were also aware of this fact; therefore, a pregnant woman has been advised to always think about the person throughout her pregnancy like whom she wants to have the child. She should also follow the diet, mode of life, cloths and acts of the desired parson. *Ayurvedic* texts have much stressed on '*Dauhridini*'. Actually the word *Dauhridini* means- desires of foetus expressed through mother. *Charaka* opines that on appearance of *Indriya*(Sense Organs), *Mana* also gets associated, therefore, at the same time foetus expresses feeling of happiness and sorrow. He start quivering due to this reason and express his desires accordingly (based on the experiences of its pervious life) through mother. Similarly as per *Sushruta Samhita*, during this period, due to conspicuousness of heart, *Chetana* (consciousness) becomes apparent, as heart is it's seat, thus in the 4th month the foetus desires the subject of *Indriya* like sound, touch, vision, taste and smell. Other texts have also expressed similar views. Due to vitiation of *Vayu* and insult or non-fulfilment of

Dauhradini (desires of pregnant mother) the foetus may become humpbacked, maim or crooked armed, lame, dumb and nasal voiced. Dilating the same he writes further that this non-fulfilment of *Douhrdini* results in

birth of crooked- legs, idiot, dwarf, unequal eyes or absent- eyes in the child. In short, Objects/desires of what- so- ever *Indriya* are neglected/not provided the foetus develops abnormality of the same.

Table No. 4: Shows effects of *Dauhradini Avmanana*(non- fulfilment of longings during pregnancy) on foetus.

Sr. no.	Longing in mother	Psychological/physical effect on foetus
1	1.To see the king	Lucky and rich
2	2.Wearing silk or woolen cloths and ornaments	Child or the persons develops a liking for ornaments and enjoyments.
3	3.Seeing idols of the gods	Person with good characters.
4	4.Visiting hermitage of saints	Religious and having control over his sense organs.
5	5.Seeing cruel animals like tigers	Indulging in violence.
6	6.Eating (a) Flesh of godha (b) Cows flesh (c) Buffalow's flesh (d) Pig's flesh (e) Deer's flesh (f) Flesh of cow's residing in forest (g) Flesh of tittira (a bird)	Sleepy and good runner. Strong and able to bear stress and strains of various type. Brave, hariy and having red eyes. Brave and sleepy. Carried out all the activities with speed and enjoy living in forest. Depressed. Fearful.

3. Mata-Pita ka Nastikya (Atheism of parents)^[13]

Improper care towards foetus anaesthetic thoughts/feeling of mata-pita disbelieves in the treatment modalities.

4. Purvakarma (bad deeds of the parents or foetus of previous life)

Purvakarma of parents or foetus of previous life is responsible for foetal character. If there were any *Papakarma* done by parents or foetus in previous life it may cause foetal deformity in present life.

Table No. 5: Shows *Garbhaj Vikritiya* (foetal anomalies) mention in ayurveda

Sr. no.	Garbhaj Vikritiya	Charaka	Sushruta	Ashtang Sangrah	Ashtang Hriday
1	1.Yamala/Yamal		✓	✓	✓
2	2.Shandha – impotent persons:- a.Aasekya b.Saugandhika c.Kumbhika d.Irshyaka/ Irshya/ Irshyalu e. Shandhaka/Vatiksandhak		✓		
3	Anasthi Garbha / Stri Vyavaya (lesbinasim)		✓		
4	4.Svapn me maithun se garbha /Garbha-Bhasa-(false Pregnancy, pseudocyesis)		✓		
5	Monster/abnormal Garbha-Vikrita Garbha		✓		
6	6.Dvireta	✓		✓	
7	7.Pavanedriya	✓		✓	
8	8.Samskaravahya	✓		✓	
9	9.Klib/ Bandha a.Nariklib b.Narklib	Klib ✓ ✓		Bandha ✓ ✓	
10	10.Vakri/ Vakradhvaja	Vakri		Vakradhvaja	
11	11.Garbhasrava(abortion)			✓	✓
12	12.Garabhapata(miscarriage)			✓	✓
13	13.Upavishtaka			✓	✓
14	14.Nagodara			✓	✓

15	15.Lina Garbha			✓	✓
16	16.Upshirshka			✓	✓
17	17.Anyanya			✓	
18	18.Jad				
19	19.Janmaandha			✓	
20	20.Ama Garbhapat			✓	
21	21.Mudhagarbha (obstructed labour)			✓	✓
22	22.Jivit mudgarbha			✓	
23	23.Mritagarbha (intrauterine death of fetus)			✓	✓
24	24.Bhuthata or Negameshhata	✓		✓	✓
25	25.Mastuluangchya		✓	✓	
26	26.Pangulya		✓		
27	27.Mukatva		✓		
89	28.Vamantva	✓	✓	✓	
29	29.Khandoshtha			✓	
30	30.Khandtal		✓		

DISCUSSION

Science is the result of curiosity of human being though which human being has studied, analyzed and come to the results of various natural process occurring in body though their microscopic studies. We must keep in mind that *Samhita* were written on the basis of direct knowledge and enlightenment, utilizing the available instruments & facilities present at that time. This is the universal fact that embryo develops by the fusion of male and female gametes.^[14] The same fact was mentioned in all the Ayurvedic samhitas in ancient time that *garbha* is formed by fusion of *Shukra*, *Shonita* and *Jeev* which grows up with the help of nutrition received by *Aahar Ras* of mother throughout the gestational period. Along with *Shukra* and *Shonita* other supplements essential for development of *Garbha* are *Garbha Samagri*, (*Ritu*, *Kshetra*, *Ambu*, and *Beej*), *Shadbhavas*, *Garbhini-paricharya* etc. Acharya has mentioned that these supplements should be present together. Absence of any one of these factor may lead to complication in *Garbha* or may be possible that *Garbha* does not form.

Acharya has mentioned the characteristics of “*Shudha Shukra*” & “*Shudha Artava*” in detail. If *Shukra* and *Artava* have the characteristic as said by Acharyas, and come to fuse at particular “*Ritu & Kshetra*”, it is quite well that offspring will be healthy & having all the characteristics which are needed. If there is any deformity in “*Bija*”, “*Bija Bhag*”, *Bija Bhagavayava*”, “*Ritu*” and “*Kshetra*” then the foetus will be deformed in size, shape and behaviour.

All the mentioned “*Garbhaj Vikritiya*” in the Ayurvedic texts is having complete evidence. The latest research in the field of genetics shows very much similarity to the ayurvedic ancient research. In all the Ayurvedic texts including the “*Vrahtrayi & Lagkutrari*” has proved that “*Beej*” is the basic thing for creation. Here *Acharaya* indicates direct to the part of “*Beej*” that will be vitiated in the microform like gene & responsible for particular organ deformity in the foetus. Here *Acharaya* has

scientific approach towards the micro to micro from of genetic. Monsters of now a days was shown by our *Acharaya* as “*Vikritakritya*” like serpent, scorpion etc. Twins was termed by our texts as “*yamala*”. So if we see all the saying in modern time was all ready said by our texts as their broad vision. Some foetal anomalies caused by “*beej dosha*” described by our *Acharaya* has much similarity in characteristics to the modern foetal deformities which having genetic cause. One deformity “*Bandhya*” describe by Ayurvedic texts is having very much similarity in characteristics to the modern term sterility. *Bandhya* which is due to genetic cause (*Beej Dosha*) is not capable to produce the offspring, same way the sterility keep that thing, sterile may be due to Oligospermy, azoospermy, defective ovulation, all these factors come in the limits of *Acharaya* said “*beej dosha*” means whatever deformity related to “*beej*” (may be *Pumbeej* or *Stribeej*) can cause of “*Bandhyatva*” is directly in relation to sterility. Another term used by Ayurvedic texts is “*Putiprijan*” for that *Acharya* stated whose child dies before birth. That type is of deformity shows that “*Beej*” (Sperm or Ova”) is partially capable to produce the offspring but not at all. The word “*Trinputik*” & “*Varta*” is the deformity where the offspring is not having full characteristics of a sex. That condition shows the genetic abnormality those are responsible to showing secondary sexual characteristics. The reasons for twins in medical science in that breakage of zygote in two and then separate development of foetus by both the part of zygote become identical twins. In same way in Ayurvedic science the breakage of “*beej-Anu*” (zygote) into two by *Vata Dosha* produces *yamala Garbha*.

In Ayurvedic texts many foetal deformities resembling abnormal shape-serpant, scorpion and gura like foetus are explained. Many type of *Napumska* which are unable to do sexual activity properly, different type of monsters “*Nagaudara*”, *Upvishtaka*”, *Lina Garbha* etc. are the foetal deformities mentioned in Ayurvedic texts. Essence of this research article is the *Garbhaj Vikriti* relevance in

day today life. All the Acharyas has considered that all the *Aadibal Pravrita Vikritiya* (Hereditary) and *Janmabal Pravrita Vikritiya* means genotype anomalies and phenotype anomalies.

CONCLUSION

The knowledge of *Ayurvedic Acharya* is unambiguous and is already concluded in itself. The basis of life origin is the *Beej* which is *Shukra* (Sperm) in the male body and *Shonita* (Ovum) in the female body. The fusion of *Shukra* and *Shonita* (sperm and ova) actually give rise to the zygote which develops into fetus. Along with *Shukra* and *Shonita* other things are also required for formation of *Garbha*. They are *Ritu* (menstrual period), *Kshetra* (uterus) and *Ambu* (*Aahar Ras*) etc. The growth and development of fetus occurs with the help of *Shad Bhava*, *Panchmahabhoot* etc. How the organs and systems develop from *Shadbhavas* it is expressed through *Maasa-Anumasik Garbha Vridhi Krama*.

In *Ayurveda*, etiology of the diseases which were unknown (idiopathic), were given the terms such as *Poorvakarma*, *Pap karma*, *Kaal*, *Prabhav* etc. As we discussed before all congenital deformities are included in "*Garbhaj Vikritiya*". Concerning with modern science the gene is the hereditary material for transfer of the characteristics from one generation to another. There are many reasons to deform the chromosomal structure and gene. Chromosomal mutation and gene mutation are one of the reasons for deformity.

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