



**CONCEPTUAL STUDY OF HEREDITY AND SHADGARBHAKARABHAVA WITH  
SPECIAL REFERENCE TO CONGENITAL ANOMALIES AND ITS MANAGEMENT BY  
PANCHAKARMA SHODHANCHIKITSA**

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Article Received on 21/03/2018

Article Revised on 11/04/2018

Article Accepted on 02/05/2018

**ABSTRACTS**

The health of the nation depends upon the health of its citizens. *Ayurvedic* embryology is an interesting branch. *Ayurvedic Acharyas* of ancient time have explained the concepts of conception, formation of zygote and fetus. It also explain the inheritance of various qualities, formation of different organs, and systems and monthly development of fetus in a detailed and interesting way. Now a day medical science has failed to keep the incidence of congenital malformation under control. Genetics is the science that deals with transmission of characters from parents to offspring. An elementary knowledge of the principles of genetics is essentials for understanding the causation of several diseases. *Ayurveda* has given various measures to minimize the risks. These measures start before conception. Ayurveda scholars described importance of six *Shadgarbhakarabhavas* i.e *Matrija*, *Pitrija*, *Aatmaja*, *Rasaja*, *Satmaja* and *satvaja*. The physical, mental, social, and spiritual well being of person, proper nutrition of the mother during pregnancy and practice of a wholesome regimen, play a prime in achieving a healthy offspring. *Panchakarma* is a unique experience that leaves the mind and body feeling relaxed, rejuvenated and cleanses the body. *Panchakarma* advances elimination of toxins from the body. This is how *Panchakarma* works.

**KEYWORDS:** Heredity, Shadgarbhakarabhava, Panchakarma Shodhanachikitsa.

**INTRODUCTION**

Advanced modern medical science has no doubt extended the life span of the human, but the new upcoming health problems are also awaiting their solution. The medical world is really worried about the increasing rate of inborn defects in the new born, which is posing a challenge to the aim of a healthy society.

The various characters that go to make up an individual are dependent, for their creation, partly on the influences of the genes, and partly on the effects of the environment. In the case of a particular character the influence of either heredity or environment may predominate. The principles of genetics are best understood by the study of conditions in which the actions of genes is not dependent on the external environment.<sup>[6]</sup>

In ancient Ayurveda, it given that *Karyakaran Bhava Siddhant* is responsible for *Shrushti Utpatti*. From this *Sidhant*, our *Acharyas* told that *Garbha Utpatti* is also depend on *Shadgarbhkarabhava*. Those six procreative

factors have an important role as causative factors of congenital hereditary, genetic anomalies, before conception and after conception. *Aacharya Charak* and *Aacharya Sushruta* has described six *Shadgarbhakarabhavas* i.e *Matrija*, *Pitrija*, *Aatmaja*, *Rasaja*, *Satmaja* and *satvaja* which are responsible achieving healthy offspring.<sup>[1]</sup>

Concepts of congenital anomalies caused due to two types of genetic changes, one is heredity and second is environmental acquired factors. Heritable anomalies may be caused by defects in specific chromosomes or in a specific gene. Environmental acquired anomalies occur in offspring due to changes in diet and lifestyle before and after conception of mother of today's era. Hence in Ayurveda there is some procedure like *Panchakram (Shodhan Chikitsa)* which can remove the toxins and also improve the metabolism of body.

**AIM**

Conceptual study of heredity and *Shadgarbhakarabhava* with special reference to congenital anomalies and its management by *Panchakarma Shodhanchikitsa*.

**OBJECTIVES**

1. Conceptual Study of *Shadgarbhakarabhava*.
2. Literature study of heredity and genetic.
3. Comparison of *Shadgarbhakarabhavas* with heredity and genetics.
4. *Panchakarama Shodhanachikitsa*.

**MATERIALS**

Classical literature of *Ayurveda* as well as modern medical sciences on the subject of gynecology obstetrics, genetics and heredity from *Samhita Granthas* and other books and Internet services.

**METHODS**

This was purely a literature study where the explored literature was analyzed and interpreted.

**DISCUSSION****Shad Garbhakara Bhavas<sup>[8]</sup>**

*Aacharya Charak* and *Aacharya Sushruta* have given the importance of six *Shadgarbhakarabhavas* i.e. *Matrija*, *Pitrija*, *Aatmaja*, *Rasaja*, *Satmaja* and *satvaja*. The physical, mental, social, and spiritual well being of person, proper nutrition of the mother during pregnancy and practice of a wholesome regimen, play a prime role in achieving a healthy offspring. The above mention *Matrija*, *Pitrija* and *Aatmaja Bhavas* cannot be changed as they come from the parents and *Poorvajanma Sanskaras*, respectively but other three *Bhavas* – factors, namely *Satmyaja*, *Rasaja* and *Satvaja Bhavas*, which can modified the intrauterine environment and psychosomatic health of the mother producing healthy impact on the fetus. It is a known fact now that environmental factors can influence the genome.<sup>[1]</sup>

As *Aacharya Sushruta* described that the fetal body originating from father, mother, *rasa*, *aatma*, *satva* and *satmaja*. The hard parts head-hairs- beards and moustaches, body hairs, bone, nail, teeth, blood vessels, ligaments, dhamani, semen etc. originate from father.<sup>[2]</sup>

The soft parts –muscles, blood, fat, bone marrow, heart, umbilicus, liver, spleen, intestines, anus etc are of material origin

1. *Matrija Bhavas*: As per *Aacharya*, skin, blood, muscles, fat and soft organs like spleen, liver, lungs, kidney, bladder, large intestine small intestines, caecum, stomach etc are the *Matrija Bhava*.

Also some other factors like maternal age at the time of conception, health of the reproductive organs of the female, time of conception, *bija* of mother, maternal diet during pregnancy, drugs-medicines taken by a woman during her pregnancy, and any disease in the mother during her pregnancy, can affect the health of a fetus.

2. *Pitrija Bhavas*: hairs, nails, beard, body hairs, bones, muscles, blood vessels, and sperm are the *Pitrija Bhava*. Hence, if a *Beeja (Sperm)* coming from a male is afflicted; a progeny may have congenital or genetic anomalies.
3. *Atmaja Bhavas*: as per *Aacharya*, *Mana*, *Indriya*, *Pran Apan*, *Prearana*, *Dharana*, *Swara Varna*, *Aakriti* etc are the *Atmaja Bhavas* which are correlated to spiritual, and social behavioral well being of offspring. Also the soul undergoes a series of births and deaths depending upon her own good or bad actions.
4. *Satmyaja Bhavas*: Immunity, color, nature, also *Medha Virya*, *Bala*, *Oja*, are the *Satmyaja Bhavas*. *Satmya* (habituation) are the things which do not cause harm to the body even though they are opposite of (qualities of) one's own constitution, habitat, time, caste (family), season, disease, exercise (physical activities), water (foods and drinks), sleep, tastes (substances of different tastes).
5. *Rasaja Bhavas*: Growth, satisfaction, and enthusiasm (like *Poshana*) all are the *Rasaja Bhavas*. *Rasa* is the *Dhatu* that flows continuously in body and is tasted by the tongue, nourishes the body, and gives pleasure to the mind. It helps for *Poshana* of body.
6. *Sattvaja Bhavas*: As per *Aacharyas*, *Bhakti*, *Sheel*, *Shauch*, *Dvesh*, *Smriti*, *Moha*, *Tyaga*, *Shaurya*, *Matsarya*, *Bhaya*, *Krodha*, etc are the *Sattvaja Bhavas*. Human birth is a very rare privilege, for only man has the possibility of living a conscious, wide-awake, controlled life.<sup>[3][4]</sup>

**HEREDITY**

Heredity is the study of how heritable traits are transmitted from parents to offspring. Heritable traits are known to be passed from one generation to the next via DNA, a molecule that encodes genetic information. As per modern science genes, chromosome and DNA are the important factors present in cell for transmission of characters from parents to progeny. Cells of one type differ from those of other types because they synthesize different proteins, including enzymes. The genes that are actually concerned with protein synthesis are referred to as structural genes. They are believed to be present in groups. Each group of structural genes is under the control of an operator gene which stimulates their activity. The group of structural genes along with their operator gene constitutes an operon. The operon is normally repressed by a repressor substance produced by another gene called the regulator gene. Enzymes or other substances produced in the cytoplasm of the cell, and various external factors like hormones and metabolites, can influence the activity of the operon.<sup>[5]</sup>

**MUTATION**

Mutations can occur both in somatic cells and in cells involved in gametogenesis. Somatic mutations produce localized changes in the tissue or organ in which they occur and affect a particular individual only. Mutations

in germ cells will be evident in the next generations or several generations also affected before it observed. Mutation may affect the synthesis of all types of proteins. This can be explained by the fact that genes sometimes undergo physio-chemical changes that alter their effect on the character controlled by them. Such a change is called a mutation.<sup>[7]</sup>

Causes of mutant genes and functional derangements

1. Spontaneous mutation or molecular decay
2. Mutation due to error prone replication bypass of naturally occurring DNA damage
3. Errors due to dna repair
4. Induced mutation caused by mutagens

Mutation occurs due to-

1. By effect on structure
2. By effect on function
3. By effect on fitness
4. By impact on protein sequences
5. By inheritance

66% of cancers causing mutation are random, 29% are due to environment and 5% are inherited.<sup>[10]</sup>

### CONGENITAL ANOMALIES

The study of congenital malformations constitutes the science of teratology. Factors that causes anomalies are called teratogens. The developments of the embryo is dependent primarily on genetic influences. However, environmental conditions can also exert an important effect. Theoretically, it can be presumed that all genetic disorders results from abnormalities in the synthesis of one or more protein. Anomalies may cause due to heredity or environmental factors. Hereditary anomalies may be caused by defects in a specific chromosomes or in a specific gene. Environmental factors are infections, malnutrition, antigenic reaction, drugs and chemicals, hormones and physical factors which causes changes in genetical structure.<sup>[6]</sup>

### PANCHAKARMA SHODHNA CHIKITSA

For purification of body *Panchakarma* is very important. The genetic mutation due to random unexplained causes is due to *Shadgarbhakarbhava*. This *Shadagarbhakarbhava* purification can be done by *Panchakarma* procedure. *Panchakarma* is plays an important role in prevention of disease but also for curing the existing disease thus maintaining good health. *Ayurveda* advocates *Shodhana* on regular basis as vitiation of *Doshas* sets in whenever favorable condition arises.<sup>[5]</sup>

Aggregation of few toxins is the natural process of the body as a consequence of different metabolic exercises, which body performs automatically. *Panchakarma* cleanses the aggregated toxins of the body. Also *Panchakarma* is an procedure which has an ability to cleanse your body of toxins and has natural blood-purifying effects.<sup>[9]</sup>

### CONCLUSION

The ancient Aacharyas of ayurveda put the theory of entire genetics information representing each and every part of the human body was transmitted from parents to the offspring.

According to *Ayurveda* congenital genetic disorder is caused due to improper management of *Shadgarbhakarbhavas*. Pure *Shadagarbhakarbhavas* can give rise to healthy normal child, whereas impure one can give rise to mutant gene and mutation. For purification of *Shadagarbhakarbhavas* it is very important to have proper *Shodhanachikitsa* before conceiving. That will help to have mutation free genome. It will lead to normal healthy child. That means which are responsible for mutation. Also the area prone to particular genetic defects will prove this hypothesis, and defective child birth rate is reduced to some extent by *Panchakarma Shodhanachikitsa* in pre conceive period.

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