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#### **Review Article**

# AN OVERVIEW OF GENETIC DISORDER IN CURRENT SCENARIO W.S.R *BEEJA DOSHA* THEORY Ankita Tiwari<sup>1\*</sup>, Nitish Sharma<sup>2</sup>

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#### **ABSTRACT**

Ayurveda is an old wisdom of life and health, the different branches of Ayurveda have evolved over the period of time as health being substantially concerned with precluding as well as curing the conditions. With adding capability to control contagious complaint and nutritive complaint there has come one realisation that the inheritable diseases are the major cause of disability, death and mortal tragedy. The inheritable diseases are the high obstacles in the development of mortal being. The causative factors for these diseases as are the indecorous conformation of genotype. Ayurvedic *Samhitas* also stated about the inheritable complaint as *Beejdosha Vikara* and also there's elaboration about concurrence of *Beeja Dosha*. In Ayurveda there's explanation of *Ritu, Kshetra, Ambu, Beej* as four effects essential for conformation of embryo and its development. The pathological change in any one of stage leads to indecorous conformation of embryo and its development. To avoid this script the Ayurveda explained the preventative measures as sanctification remedy and drug.

## **INTRODUCTION**

*Ayurveda* is totally proved in the form readers called as 'Samhita'. Charaka Samhita, Susruta Samhita and Ashtanga Hridaya, is written in Sanskrita language. The inheritable material is present in gametes of parents. The Beej is introductory substance to grow in new one and have veritably minute, retired precursor. Male part is Shukra and female part is Shonita or Lohita. The Beej have different element. It has Beejbhag, Beejbhahavayava and Beejabhagnamekdesh. Beeja has homologous correlation with contemporary scientific term. If the part of Angavayautpadakabeej (gene responsible for product of organs) is vitiated also that part is affected with separate complaint of parents. If it is not vitiated also seed will remain healthy and normal. At the time of fertilization there's involvement of three humors to decide the Prakriti. There's three humor *Vata*, *Pitta* and *Kapha*. It depends on mother's diet and lifestyle, status of uterus, time of fertilization, season and dominancy of Mahabhoot.

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In this composition we're reviewing and evolving the colorful aspects of genetics described in Ayurveda.

# AIM

An overview of inheritable complaint in current script w.s.r *Beej Dosha* proposition.

## **OBJECTIVES**

- To study *Beej Dushti* in Ayurvedic approach as causative factor in inheritable complaint.
- To study the causative factor for inheritable diseases in present period.

The four factors are essential for the conformation of embryo viz., *Ritu, Kshetra, Ambu, Beej*.[1]

# 1. Ritu (Fertile period) [2]

Menstrual period in womanish i.e., 1<sup>st</sup> three days are infelicitous for generality and 4<sup>th</sup> day to till end of month are suitable day for generality.

## 2. Kshetra (Uterus) [3]

It's a place where generality takes place and embryo grows. Anatomical and physiological normality of organ uterus is important because it's a place where period occurs as well as embryo grows in this depression.

## 3. Ambu (Nutrient Fluid) [4]

This conception is nearly related to *Rasa Dhatu* which nourishes whole body; also it's important

factor for internal condition of mortal being. *Raj & Stanya* are *Updhatu* of *Rasa*. Chronicity of menstrual cycle depends upon *Rasa Dhatu*.

## 4. Beej (Spermatozoa & Ovum) [5,6]

Normal or *Shuddha Purush Shukra* and *Stree Shonita* are essential for confirmation of normal existent. *Beej* is crucial factor in conformation of embryo and metamorphosis inheritable information. *Beej* is veritably important essential for metamorphosis of maternal characters. [7]

#### Causative Factors for Garbha Vikruti [8]

For proper growth of foetus mother should have the acceptable diet, normal exercise, calmness in mind and avoidance of smokes and other dangerous substances. In ancient Ayurvedic champion gave significance to six factors for proper development and growth of fetus. These procreative factors are *Matraj* (motherly), *Pitraja* (paternal), *Satvaj* (psyche), *Satmyaja* (habitual), *Rasaja* (nutritive) and *Atmaja*. Only *Atmaja bhavas* are non-vitiated and is distributed homogenously in all brutes.

# Matraja Bhava (Motherly)

This is essential and important *Bhava* for proper growth of baby in intrauterine. Mother gives rise to foetus in her uterus by nourishing approx. Nine month of duration. Foetus organs soft in nature arises from motherly element from ovum during generalizations. The organs are skin, spleen, feathers, bladder, rectum, stomach, upper and lower part of the anus, small intestine, large intestine, mesentery and omentum.

# > Pitraja Bhava (Paternal element)

Paternal element of foetus is responsible for the product of hair of head, hair of face, nail, small hair of the body, teeth, bone, modes, ligaments, highways & semen. The ideal age for marriage and child product is 16 year for female and 25 year for male. Age shouldn't be lower than nor much more redundant, robotic revocation and chromosomal anomaly is related to redundant age of paternal. If a man in old age and aged lady get pregnant also baby will not survive in intrauterine life if get survive also baby will suffer with complaint. In both conditions get will be genetically abnormal. A point mutation inheritable complaint Von neurofibromatosis is due to disfigurement in sperm mutation, McGrath has proved the normal embryo development, paternal genes is veritably necessary. In relation to sperm chromosomal aneuploidy, sperm chromosomal abnormality, mechanical fragmentation of sperm DNA causes intermittent gestation loss, also part anomaly in blocked development and confinement of foetus in gestation. Sperm DNA damage may be the results of redundant ROS (Reactive oxygen species) product. The extent of nuclear DNA damage in spermatozoa was related to

embryo development to the blastocyst stage, a time when the embryonic genome is actuated transcriptional exertion has begun and the paternal genome play a significant contributory part in embryo function.

## > Satmya Bhava (Habitual)

These are the factors which aggravate and deplete the growth of the fetus. It might be place (*Desh*) race (*Jati*), estate, niche, seasons (*Ritu*), disease (*Roga*), exercise, water, day time sleep, taste [*Rasa*], constitution (*Prakriti*) etc.

# > Rasaja Bhava (Nutritive)

The *Rasajabhava* for foetus leads to growth of the body, durability of strength, satisfaction, plumpness and enthusiasm. *Rasa* is substances which have taste by lingo like, *Madhur*, *Amla*, *Lavana*, *Katu*, *Tikta* and *Kashaya*. It nourishes the body and giving affable to mind. In pregnant lady and fetus needed balanced *Ahararasa*. Its main function is to nourish the seven *Dhatu*. For proper growth and development of fetus and mother, month wise diet has been recommended. A complete diet has mentioned to avoid any untoward effect on growing fetus.

#### > Satvaja Bhav (Psyche)

The last one determining factor are liking, conduct, chastity, hostility, memory, attachment, strong desire, Matsarva, valour, fear, wrathfulness. doziness. enthusiasm. sharpness. wimpiness. soberness. insecurity and similar other instantiations of the mind. During embryo development motherly stress have an effect on per implantation embryo in veritably early gestation leads to high cortisol position and low progesterone, this beget the high glucose position in blood and problem in implantation. Degree of stress response depends also on inheritable factors, personality, characteristic, former gests, support from social terrain and the way of managing with stress. In pregnant ladies the stressors are physical revision, gestation specific anxiety like fear of child integrity and fear of pain during delivery. In gravid period fetus can learn sounds and respond differentially to them after birth. It thinks with their senses. It responds with former recovery from intrauterine life. It's possible that a baby can be produced redundant uterine miracle but life span is veritably short in comparison to involving six embryo promoting factors. A study showed that life span of beast has advanced than reproduced beast.

#### Impact of *Beejdushti*[9]

Which parts of *Beejavayav* get affected, in after stage of development the disfigurement occurs in that particular organ.

# Measures to Avoid Beejdushti [10,11]

In Ayurvedic classics following measures have been told to amend the *Beejdushti* which is known as *Beejshodhan*.

- > Snehana
- > Swedana
- > Vamana
- Virechan
- Madhuroushadhi Ghrit and Ksheer for male, Tail for female.

Implication of *Shodhana* therapy after examination of vitiated *Dosha*.

#### **DISCUSSION**

Indian foreseers are hidden regarding their conception on inheritable and natural horizon. With above mentioned study reveals that Indian foreseer was well apprehensive about physical and inheritable material. They knew veritably well about the inheritable material, chromosome, DNA and gene, Also they have knowledge of their miracle during zygote cell division, gene coding, decoding, metamorphosis, inheritable engineering and six Garbhkarbhavas (procreative factors). Shukra is identified with sperm and Shonita with ovum. There is homologous in Beei (sperm/ ovum), Beejabhaga (nexus/cell organelle), Beejabhagavayava (chromosome). Beejabhagnamekdesh (gene). The Sahaja term is Janmajata/gene interpreted as disfigurement/ mutation and Kulaja is interpreted as inheritable/ determine the genotypic and phenotypic character. There abnormality in gene decoding in baby produces inheritable abnormality and conditions. Prakriti is not a single reality but is accretive of all six factors during intrauterine life. So numerous issues are unidentified and yet to perform functionally in different sluice.

The genomic miracle and *Beejdushti* miracle states the same pattern that any disturbance or indecorous arrangement of nucleotide or *Beejbhag* will lead to conformation of pathological changes in developing embryo. The medicine and procedure developed for *Beejshodhana* may helpful to avoid the

circumstance of inheritable complaint in future generation. The *Beej Shuddhi* either may become ray of hope in the management of genetic disorder.

#### CONCLUSION

Genetic disorders and their pathology is similar to that of *Beej* theory of Ayurveda. The management of *Beejdushti* may be applicable in genetic disorder.

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