

AYURVEDA AND MODERN PERSPECTIVES ON CONGENITAL ANOMALIES OR
ANATOMICAL ABNORMALITIES: A REVIEWDr. Naresh Amarsing Jadhao*¹, Dr. Mahendra Dayalsa Bande² and Dr. Abhay Vasantrao Bhuskade³¹Professor, Anatomy Dept., ASPM Ayurved College, Buldhana, India.²Professor & HOD Sankrit Samhita Sidhant Vibhag, Dr VJD Gramin Ayurved College, Patur, Dist.-Akola, India.³Professor, Rachana Sharir Dept., Dr VJD Gramin Ayurved College, Patur, Dist.-Akola, India.

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ABSTRACT

Ayurveda is the fundamental science of medicines which covers all aspects of human life. Ayurveda described many diseases and classified into different categories on the basis of their symptoms and origin. In this regards Adibala pravritta and Janmabala pravritta are categorized under the heading of Garbhajanya vikriti. These mainly arise from the maternal or paternal problems and defects in progeny. Faulty diet and lifestyle of mother also considered responsible for the congenital birth defects. Defects in Beeja & Beejabhag play important role towards the pathogenesis of such types of diseases. Similar to Ayurveda modern science also mentioned structural anomalies and developmental issues. Heart defects, spina bifida and club foot, etc. are common anatomical abnormalities. Ayurveda scholars mentioned various factors i.e.; Matrija, Pitrija, Aatmaja, Rasaja, Satmyaja and Sattvaja factors as Shadgarbhkarabhavas which play vital role for healthy progeny. The awful conducts, abnormalities in Shadgarbhkarabhavas and genetic predisposition, etc. triggers pathogenesis of Garbhajanya vikriti.

KEYWORDS: Garbhajanya vikriti, Matrija, Pitrija, Congenital Anomalies, Beeja, Beejabhag.

INTRODUCTION

Ayurveda as ancient system of Indian medicine elaborated many issues related to the health, disease, treatment of diseases and prevention of diseases. In this regards Ayurveda explained several principles and conducts for healthy progeny and birth of a healthy child. The six factors described as *Shadgarbhkarabhavas* play important role in healthy progeny and normal child birth. The avoidance or defects in *Matrija, Pitrija, Aatmaja, Rasaja, Satmyaja* and *Sattvaja* factors may leads birth defects or anatomical abnormalities.^[1-4]

Bija Dosha & Matrij Vikriti are considered responsible for the *Garbhaj vikritiya*; these deformities may include abnormalities in the growth and development of fetus. The abnormal shape & size of fetus, snake & scorpion like shape of fetus and crooked legs fetus, etc.

The improper physical, mental and social conducts during pregnancy, environmental factors and genetic factors, etc. may leads unhealthy or defective child birth. The Ayurveda stream of "*Sharir Rachana*" described many anatomical perspectives of body including disease related to the anatomical abnormalities or birth defects. The vitiation in *Beeja & Beejabhag* causes anatomical abnormalities.^[4-7]

The common manifestations of anatomical defects are as follows

- Absence of organs
- Structural defects in organs
- Excess or extra development of tissue
- Anatomical variations
- Improper development of body parts, etc.

The other factors which can leads birth defects includes *Kula* or *Gotra* of parents, health status of mother, age of mother and father, status of reproductive organs, dietary factors and hereditary factors, etc.

Garbhajanya vikriti (Congenital anomaly)

Acharya Sushrut described *Nastikata* and *Ashubha karma* of parents as causes of *Garbhajanyavikriti* along with *Purvajanmakrita karma*. Pathologically vitiation of *Vata* and *Dosha prakopa* during the pregnancy mainly causes birth defects. These all may leads defects in fetus and the shape of fetus becomes like *Sarpa, Vrashchika* and *Kusmanda*, etc. The *Garbhajanya vikriti* are responsible for the birth of *Kubja, Kuni, Pangu, Muka* and *Minmin* child. The anatomical abnormalities mainly occurs due to the defects in sperm and ovum, inappropriate condition of uterus, age of mother, *Dosha* predominance, time and quality of conception, perios of conception, food regimen of mother and mental status of

parents, etc.^[6-8] Congenital abnormalities mainly occur in young women belonging from teen age group or in middle aged women conceiving after 35 years.

Acharya Charaka has described five factors responsible for Vikriti as follows

✓ **Beejadosh**

The chromosomal abnormalities of the modern science can be correlated with *Beejadosh* which is responsible for diseases like *Vandhya*, *Vaarta* and *Putipraja*, etc.

✓ **Atmakarmajadosha**

Papakarma may affect fetus and it may acquire shape of *Sarpa* and *Vrushchika*, etc.

✓ **Aashayadosha**

Garbhashayadosha in the form of *Yonivyapada*; which can be correlated with the modern diseases in which malformation of uterus occurs as unicornuate and septate uterus, etc.

✓ **Kaaladosha**

Conception on 1st, 2nd or 3rd day of *Rajasravakala* may become responsible for *Asampurnanga* and *Mrutagarbha*, etc.

✓ **Matrujaaharaviharadosha**

Garbhopaghatakaraharavihara like *Atiamla*, *Atimamsa-matsyasevana*, *Atinidra* and *Atimadhyapana*, etc. may leads *Garbhavikriti* like *Badhira*, *Gadgada*, *Heenanga*, *Khalita*, *Shwitra* and *Kushta*, etc.^[8-10]

Skin Abnormalities

Hyper pigmentation, *Vridhhi* and discoloration are common anatomical abnormalities related to the skin. The deformity in complexion and texture may occur in outermost layer of skin due to the genetic defects. Vitiating of genetic factors may causes different abnormalities as depicted in **Figure 1**.



Figure 1: Abnormalities associated with skin.

As mentioned in above figure, when genetic factors affect different layers then various skin ailments arises. The other skin abnormalities are *Visarpa*, *Kilas* and *Shivtra*, etc.

Reproductive abnormalities

Dwireta is sexual abnormality in which person possess both ovarian and testicular tissue. *Pavanendriya* is another abnormality can be correlated with infertility. The other sexual abnormalities includes; *Samskarvahi*, *Narashanda*, *Irsyabhirati* and *Vakri*, etc. The reproductive abnormalities also arise due to the defects in uterus, sperm and ovum, etc.

Metabolic abnormalities

Susruta described *Sahaja Prameha* as hereditary condition which may occurs wither from the maternal or paternal factors and inherited from previous to next generation. The vitiating of *Sukra* and *Sonitsa* of parents mainly considered responsible for such types of condition.

Modern Perspectives

The defects in ovum, sperm, uterus, time factor, change in gene, mutation and genetic materials abnormalities may leads congenital anomalies. Mutation in gene sequence can also cause genetic abnormalities. Mutation in one gene or one sequence may leads monogenic disorder while mutation in multiple genes may leads multi factorial disorders. Modern science described various genetic disorders including chromosomal

disorders, mitochondrial disorders and multifactorial disorders, etc.

Sickle cell disease, polycystic kidney disease, cystic fibrosis and chronic myeloid leukemia, etc. are common anatomical abnormalities. Many structural abnormalities also described in which improper formation of organs or absence of organs may occurs, the examples of such types of diseases are Ventricular septal defect, Spina bifida and Cleft lip, etc. Clinically these diseases involves manifestations like improper backbone closing of spinal cord, abnormal position of bladder, abnormal gap in lips, abnormalities in heart, nodular shape of liver, enlarged liver, absence of portal vein valve, abnormal thinning of vessels wall, enlargement of vessels and abnormal vascular dilatation, etc. The two major categories of anatomical abnormalities as per the modern science are structural abnormalities and developmental abnormalities. Structural anomalies include heart defects, cleft lip or palate, spina bifida and clubfoot, etc. Developmental issues include Down syndrome, hearing impairments, visual impairments, cerebral palsy and muscular dystrophy, etc.

✚ Down syndrome person born with an extra chromosome; which affects development of brain and body.

✚ Visual impairments involve irregular eye shape or improper coordination amongst the brain and eyes so visual defects arises. In hearing impairments the ear does not work properly.

- ✚ Cerebral palsy is a condition in which motor disability occurs; it affects movement, balance and posture. The condition mainly occurs due to the damage in brain during the development phase.
- ✚ Muscular dystrophy affects muscles, the muscles become weaker with the time during the development phase.

CONCLUSION

Ayurveda described many information regarding the *Sharir Rachana* and anatomical abnormalities related to the human body which mainly arises due to the genetic and congenital factors. The *Garbhajanya vikriti* arise from the maternal or paternal defects associated with progeny. Defects in *Beeja & Beejabhag* trigger pathogenesis of such types of diseases. As per Ayurveda *Matrija, Pitrija, Rasaja, Satmyaja, Sattvaja* and *Aatmaja* factors play significant role for the healthy progeny and any abnormalities or vitiation in these factors may cause *Garbhajanya vikriti*. The common clinical manifestation of congenital anomalies or anatomical abnormalities includes absence of organs, structural defects in organs, excess development of tissue, anatomical variations of organs and improper development of tissue, etc. Similar to Ayurveda modern science also mentioned structural anomalies and developmental issues such as; heart defects, spina bifida and club foot, etc.

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