

ANATOMICAL ABNORMALITIES W.S.R. TO SPECIFIC ORGANS: AN AYURVEDA  
AND MODERN PERSPECTIVEDr. Rakhi Ram Kulkarni\*<sup>1</sup> and Dr. Jyotsna Gulhane<sup>2</sup><sup>1</sup>Professor and HOD, Rachana Sharir Dept., SRC Ayurved College, Chikhli, Maharashtra, India.<sup>2</sup>Professor and HOD, Dept. Rasashastra and Bhaishyajya Kalpana, SRC Ayurvedic College, Chikhli, Maharashtra, India.

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Article Received on 21/10/2021

Article Revised on 11/11/2021

Article Accepted on 01/12/2021

## ABSTRACT

Ayurveda gives several theories related to the healthy life and overall well being. The health of person as per Ayurveda mainly depends upon the ways of healthy regimen and life style. The physiological functioning of person govern by specific anatomical organs, the anatomical abnormalities in organs affects physiology of human body and leads several disorders including congenital anomalies. The knowledge of anatomical organs is very important to understand abnormalities related to the organs of body. Ayurveda described several diseases which mainly arise due to the anatomical or congenital anomalies. In this connection Ayurveda mentioned concepts of *Pitrija*, *Matrija*, *Aatmaja*, *Sattvaja*, *Satmyaja* and *Rasaja*, which play important role towards the normal development of anatomical organs of body. The disturbance in these factors results anatomical abnormalities. Present article described anatomical abnormalities as per ayurveda as well as modern science with special reference to specific organs.

**KEYWORDS:** *Ayurveda, Sharir Rachana, Anatomical Abnormalities, Congenital Anomalies.*

## INTRODUCTION

Ayurveda is globally accepted science of medical system practicing from ancient time. Ayurveda described term “*Sharir Rachana*” which deals with anatomical perspectives of body. The study of *Sharir Rachana* is important to understand pathological consequences related to the body organs. Similarly the knowledge of *Sharir Rachana* also contributed towards the success of *Shalaky Chikitsa*.<sup>[1-4]</sup>

Ayurveda mentioned normal structure and anatomical view on body organs but also emphasizes abnormal

conditions which are responsible for anatomical disorders. The vitiation in *Beeja & Beejabhag* mainly results anatomical abnormalities while modern science specifies mutation, hereditary, environmental and genetic factors, etc. for initiating anatomical abnormalities.

Absence of organs, structural defects in organs, excess or extra development and anatomical variations, etc. are major clinical observations associated with anatomical abnormalities.<sup>[3-5]</sup> The factors which are mainly considered responsible for anatomical or congenital anomalies are depicted in **Figure 1**.

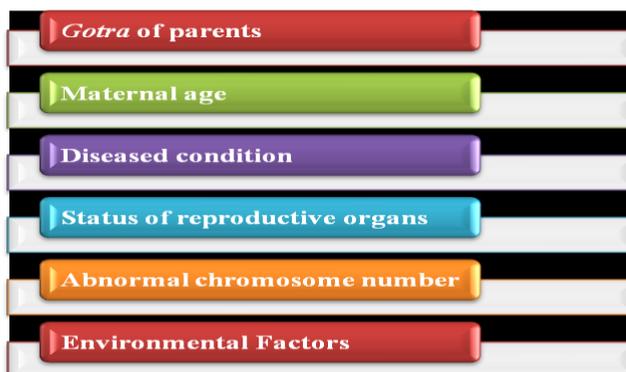


Figure 1: Factors responsible for anatomical abnormalities.

### Skin abnormalities

Hyper pigmentation and discoloration are common anatomical abnormalities related to the skin. Genetic factors affects layer of skin thus causes defect in skin complexion and deformity of skin texture. The defect in second layer of skin (*Lohita*) can leads pathological condition like *Tilkalka* and *Vyanga*, etc. The vitiation of third layer of skin (*Shweta*) leads condition like *Mashak* and *Charmadal*.

### Anatomical Abnormalities in Reproductive System

The defects in sperm and ovum, improper fertilization and awful regimen of the expecting lady, etc. can leads disorders related to the reproductive system. The vitiation in *Sukra* and *Sonita* causes *Adibala pravritta vyadhi*.

*Garbhaj vikritiya* mainly associated with *Bija Dosha & Matrij Vikriti*, the other anatomical deformities includes abnormal shape & size of fetus, snake like shape of *Garbha* and crooked-legs fetus.

Defective skin of fetus, defects in *Ashaya*, blockage of fallopian tube and abnormal development of ovary, etc. also considered anatomical abnormalities which arise due to the genetic or other factors.

The description of anatomical abnormalities in Ayurveda and modern science is very similar except some deviation. *Charak* has described *Dwireta* as defect in which person possess both testicular as well as ovarian tissue and this condition can be correlated with hermaphrodites as per modern science.

Similarly condition like *Pavanendriya* can be correlated with Klinefelter's syndrome which is related to the infertility.

The other sex related abnormalities are *Samskarvahi*, *Vakri*, *Narashanda*, *Vatikshanda* and *Irsyabhirati*, etc.<sup>[5-8]</sup>

### Anatomical abnormalities of Digestive Organs

The liver cirrhosis, improper development of *Yakrit*, nodular shape of liver, hubnailed shape of liver and cut surfaces of *Yakrit*, etc. are common anatomical abnormalities related to the liver. The enlarged liver and biliary obstruction also seen sometimes as anatomical defects. Formation of nodules, separation by fibroussepta and formation of scars which distributed irregularly also occurs in liver as anatomical defects. The absence of bile duct, malignant changes of liver nodules and compression of vessels, etc. are anatomical problems which may causes other health issues like; hypertension and ascitis.

### Abnormalities in Vessels

Various defects observed in *Sira*, *Dhamani* and *Strotas* which affects circulatory system and imparts health risk even death also. Common anatomical defect in vessels

mainly occurs from the birth in the form of congenital disorders. The anatomical variation in vein, absence of portal vein, absence of portal bifurcation, diversification in portal trifurcation, absence of portal vein valve, vessels enlargement, abnormal vascular dilatation (diameter exceeded form 1.5 cm to 1.9 cm) and dilatation of portal vein, etc. are common anatomical defects which disturbs blood flow in the heart and hamper overall circulatory system of body.<sup>[6-11]</sup>

### Modern View

Defect in ovum, abnormality in sperm, gene, defect in uterus, changes in genetic materials and mutation, etc. are major causes of congenital anomalies as per modern science. It is believed that mutation in one gene causes monogenic disorder while mutation in multiple genes causes multi factorial disorders. As per modern science single gene disease, chromosome disorders, mitochondrial disorders and multifactorial disorders are major types of genetic disorders. The common genetic & chromosomal disorders are cystic fibrosis, sickle cell disease, polycystic kidney disease, down syndrome and chronic myeloid leukemia, etc.

Modern science described many structural abnormalities in which absence of body part or improper formation of organs occurs. Ventricular septal defect, cleft lip and spina bifida, etc. are common abnormalities mentioned in modern literature. Inappropriate closing of backbone, abnormalities in spinal cord, abnormal positioning of bladder, abnormalities in heart and inappropriate gap in lips, etc. are general clinical manifestations of common anatomical abnormalities.

### CONCLUSION

Ayurveda encompasses many theories related to the *Sharir Rachana*; this ancient science described several anatomical abnormalities related to the genetic factors. Defects in gene, mutations and chromosomal abnormalities lead major anatomical problems. Drug abuse, tobacco & alcohol consumption, environmental hazards, radiation and improper dietary habits, etc. are major triggering factors of anatomical defects. Organ like liver and skin also get affected by anatomical defects. Nodular shape of liver, enlarged liver and obstruction in bile circulation are common anatomical defects found in liver. Vanishing duct syndrome, absence of valve, vessels enlargement, inappropriate diameter of vessels and thinning of vessels wall, etc. are some anatomical abnormalities associated with circulatory system.

### REFERENCES

1. Charak Samhita "Vidyotini" Hindi Commentary by Pt. Shashtri Kashinath and Chaturvedi Gorakhanatha, edited by Pt. Rajeshwara Datta Sastri, Chaukhambha Bharti Academy, Varanasi, Ed. Reprint -2005. Part 1, Sharira Sthana 4/30-31, p.n. 877-878.

2. Sushruta Samhita: Vriddha Sushruta, Ed. By Vaidya Yadavji Trikamji Acharya; Chaukhamba Surbharti Prakashan, Varanasi (2002).
3. Charak Samhita, Chakrapanidutta Ayurved dipika vyakhya, Prologue by –Prof. R.H.Singh, Chaukhambha Surbharti Prakashan, Varanasi, Reprint -2017, Page no -322.
4. Ashtang Sangraha- Shashilekha: Indu's Commentary, Ed. By Vd. Pandit R. Kinjawadekar; Chitrashala Mudranalaya, Pune (1938).
5. Kaviraja Ambikadutta Shastri, Sharirstan: 2nd Shukrashonitshuddhi, 3rd Garbhav krantisharir, SushrutSamhita, Twelth edition, New Delhi, Chaukhamba.
6. Charaka Samhita: Charaka, Ed. By Pt. Kasinath Shastri; Chaukhambha Sanskrit Sansthan, Varanasi.
7. Brahmanand Tripathi. Charak Samhita (Hindi translation) Vol. 1, Varanasi: Chaukhamba Subharti Prakashan, 2006. p.919.
8. Vagbhata, Ashtanga Hridayam, Sutrasthana, Doshabhedhiya Adhyaya, 12, edited by Vaidya Bhramhanand Tripathi, reprint ed. Chaukhamba Sanskrit Pratisthan, Delhi, 2007.
9. Sushruta, Dalhana. SusrutaSamhita. Sutrasthana, Annapaanvidhi Adhyaya, edited by Vaidya Ambikadatta Shashtri, reprint ed. Chaukhambha Sankrit Sansthana, Varanasi, 2010.
10. Kaviraja Ambikadutta Shastri, Sharirstan: 2nd Shukrashonitshuddhi, 3rd Garbhav krantisharir, Sushrut Samhita, Twelth edition, New Delhi, Chaukhamba.
11. Vagbhata, Ashtanga Hridayam, Sutrasthana, Doshabhedhiya Adhyaya, 12, edited by Vaidya Bhramhanand Tripathi, reprint ed. Chaukhamba Sanskrit Pratisthan, Delhi, 2007.