



## A REVIEW ARTICLE ON ANATOMICAL STRUCTURES USED IN GARBHA POSHAN

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### ABSTRACT

Ayurveda is a science of life. Fundamental values of Ayurveda's are "swasthasya swatha rakshanam aturasya vikar prashamanam". Swasthya i.e. happiness of person dependent of prakruti which is been formed during garbhavastha (during gestation). Happiness of garbha can be achieved by proper fundamental principles of garbhini parichrya (regimen) from starting of pregnancy till delivery. The foetus deprived of hunger and thirst totally, depends upon mother for nourishment. Prior formation of placenta the nourishment of the fetus occurs by Upsneha (attracting moisture). At this time the foetus gets its nourishments through upsneha which fluid moves around it. But later nourished by placental circulation. Ayurveda focus on dependency and nourishing structures in details. Here the relevant study is done regarding fetal nutrition providing structures.

**Keywords:** Grabha poshan, Foetal nutritions, Upsneha, Garbha, Garbhini paricharya.

### INTRODUCTION

In Ayurveda embryology terms is related to garbhasharir. Several ideas about garbhotpatti upto nishkraman (conception to expulsion) quoted by Acharyas along with useful opinions. Acharya Sushruta has mentioned garbhaadhan (fertilization), garbhaavkranti – masanumasik vrudhi (fetal development), garbha poshan (nourishment), garbha dharanavdhi etc chapters

in Ayurveda book. Acharya Charak has also mentioned masanumasik vrudhi (month wise growth) according to Ayurveda. In Ayurveda garbha poshan is described in two stages. One is prior formation of apara (placenta) and second after apara formation. Upsnehannyaya has been described by Acharya Sushruta for the garbha poshan and different structures are explained here. Upsnehan – Nutrition by method of diffusion of water. Ras is responsible for the appropriate growth of the Garbha. In Ayurveda, essence of food (rasa) taken by mother is divided into three parts. Primarily nourishes her body, second promotes her breast milk and third nourishes the fetus. Modern science also described that nutrition to fetus from mother occurs through two circulations namely – placental circulation and fetal circulation. Umbilical cord of fetus is attached rasa carrying nadi of mother which carries veeryas of ahar rasa (nutritious parts) mother to the fetus by indirect nutrition (Upsneha) the fetus develops so in this article we will learn the structures concerned in garbha poshan and its correlation with the modern anatomical structures.

## DISCUSSION

Embryology is the study of growth from the fertilized egg through eighth week. Embryonic period is called from fertilization to eighth week of development, the developing individual is called an embryo. Further growth i.e. beyond eighth week is considered as foetal growth. In Ayurveda associated to Garbha “fertilization – fetal development – nutrition” all these aspects mentioned in Sharir - sthan of Sushrut Samhita. Garbha related chapter described by Acharya Sushruta, Acharya Charaka and Vagbhata in various treatises. The following adhyaya are described: shukra shonit shudhhi sharira dhyeya, Garbhavkranthi, Garbhavyakran sharir, Mhatigarbhavkranti sharir (the fetus), apara, apara function, garbhanabhinadi etc. these concepts of garbha are described by Sushruta. Chapter of conception, be concerned of product of conception and pregnant women, Month wise management of pregnant women, be concerned of child just after delivery, lessons to pregnant women, cutting of umbilical cord are mentioned by Acharya Charaka in detail. Ayurveda gives significance to the quality of seed (beeja i.e. sperm and ovum) and theory of conception is compared with planting of tree as for appropriate growth of tree which wants healthy nourishment. “Garbha is union of shukra, shonita and atma” after the union of these garbha started the vrudhi that is the masanumasik vridhi which is from pratham mas to navam mas. In this nine months period, garbha have need of the essential nutrition that is called the poshana. In sharir sthana, Acharya Sushruta mentioned the poshan of

garbha. In Ayurveda maternal ahar with nutrients enters in maternal rasavahini nadya through the nabhi nadi of garbha. It circulates blood in garbha sharir and sarva shariravyav. This nutrient part provides through Triyak gati and Rasvaha dhamniya to all over body of garbha causes Angpratyang poshan. Acharya Charak has described Matrupatantarata that is maternal ahar (nutritional part) absorbed by fetus and fetus get nourished by Upsnehan nyaya. Kedar kulya nyay also described in Ayurveda for the garbha poshan. According to modern science nutrients, oxygen and antibodies are provided to the fetus from the maternal circulation. As per modern science, fetus is combination of human egg and sperm that is called as the fertilization. This fertilized ovum gets implanted in the endometrium with development of germ layer of fetal development. In modern science two stages are mentioned in fetal nourishment before placenta formation and after placenta formation. Embryo became nourished with uterine secretion and yolk sac. After placenta formation get nourished by the circulation from the placenta to the fetus - fetal circulation. The circulatory system of the mother is not directly associated to the fetus, so the placenta functions as the respiratory center for the fetus as well as site of filtration for plasma nutrients and waste throughout the umbilical cord which contain -Two umbilical arteries and one umbilical vein. Arteries are return de-oxygenated blood, fetal waste, CO<sub>2</sub> to placenta. Oxygenated blood and nutrients are provided fetus through umbilical vein.

#### **After birth circulation changes occurs in**

- 1) **Pulmonary circulation** – lungs function.
- 2) **Systemic circulation** – placenta removed.

#### **Three shunts present in fetal life**

- 1) **Ductus-venosus** - connect the umbilical vein to the inferior vena cava.
- 2) **Ductus-arteriosus** - connect the main pulmonary artery to the aorta.

**Foramen ovale** - Anatomically opening between the right and left atrium.

Growth of healthy fetus and to prevent the nutritional anomalies of the fetus, Acharya described Garbhini Ahar parichrya and also importance of Garbhini Ahar rasa in Ayurveda in terms of masanumasika ahar. If we compare the ideas of garbha poshan and fetal nourishment mentioned in Ayurveda and modern science, similarity associated to dependency found. Fetus become nourished with maternal blood by placenta which is

same as garbha acquire “Poshan’ through Matru-ahar-ras. Maternal heart is associated to fetus via channels. Here in Ayurveda channels are described as Rasvahini dhamnya.

## CONCLUSION

Grabha poshan is one of the important factors responsible for grabha parivridhi. Matruhridaya, Nabhi nadi, Rasvahini are the directly concerned structures whereas Aparaos indirectly described in process of garbh poshan. Almost all structures found to be fetus this idea was elaborated with keen observation in Ayurveda save as that of modern science. with keen observation in Ayurveda save as that of modern science.

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