

Structure Involved In Garbha Poshan – The Review

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Abstract

Foetal relies heavily on maternal nutrient stores for optimal growth & health outcome later in life ,the improper foetal nutrition may end in abortion ,IUGR,Foetal abnormalities .Nutrition during pregnancy has profound effect on development of foetus .Before formation of placenta nourishment of the embryo occurs through Utsneha, during this time embryo gets nourishment through from the fluid moving around it, after that nourished by placental circulation.

Introduction

Acharya sushruta elaborate in detail various concept regarding Garbhaotpatti, mansanumasik Garbhavruddhi,Garbhasamugri,Garbhaposhan , Garbhashadbhav, Angpratyangnirman, in this way upto nishkrman. stages of Garbhaposhan is two,one is before formation of Aparas & second is after formation of Aparas.¹

Modern science mentioned that nutrition to foetus from mother occurs through two circulations namely -placental circulation & Foetal circulation, & also explained in detail cleavage formation-Fertilisation-Formation of germ layer ,Monthwise foetal development lastly foetal nutrition all these aspect explained .³

Umbilical cord of foetus is attached to Rasa carry by Nadi of mother which carries veerya of ahar rasa mother to foetus by indirect nutrition in this way foetus develop.⁴Here is an attempt to understand the structure involved in Garbhaposhan& its correlation with anatomical structures.

As per sushrutacharya detail explanation regarding to Garbhasharir.In modern science cleavage formation-Fertilisation-formation of feram layer ,monthwise foetal development lastly foetal nutrition all these aspect explained also as per ayurveda this all are described in detail the chapter of sharirsthana in sushrut Samhita.

Discussion

Study of development of an individual before birth i.e.embryologyDuring first two months developing individual isembryo,from the third month upto birth we call it foetus.Within the womb every individual spends nine months of it's life It develop from one cell structure to an organism

having billions of cell .numerous tissues & organs are formed & come to function in perfect harmony.⁵

Month wise foetal development, month wise foetal treatment of pregnant women ,instruction to pregnant women about better living ,nutrition. etc., cutting of umbilical cord,are described thoroughly by charakacharya.⁶

Development before birth is called prenatal development,- which is the time between conception & birth, this period is genetically divided into three stages germinal stage, Embryonic stage, Foetal stage.

Development of after birth postnatal development- broadly divided into age categories of neonatal birth [birth to one month],infancy [1 month to two years] childhood[two years to puberty]Puberty [twelve years to mid teens]& young adult to new category [late tweens to early twenties]Development process is continuous does not stop at birth, it continuous after birth for increase in the size of the body.⁷

Importance of Quality of seed & conception As per Ayurveda is much necessary for planting of trees , development, growth. in this way after union of shukra & shonitagarbha gets started to vrudhithat is as per sushrutacharya Mansanumasik garbha vrudhithat which is described in the form of Mas.i.e. Prathammas, Dwitiyamas, upto Navam mas.⁸

In the topic of Garbhaasya Matrupartantrata described maternal food absorbed by foetus ,for the garbhaposhan Foetus get nourished by Nyayas. Nyayas briefly described in Ayurveda for the puposes of Garbhaposhan. Uppsnehanniyaya, kedarkulyanyaya.Garbha is union of shukra, shonit, garbhadhay, aatma ,prkurti,vikar Maternal food with nutrients enters in maternal rasvahnadya through nabhinadi of garbha.⁹

All this nutrient parts provides through Dhamni i.e. Urdhwagatdhamani, Adhogatdhamin, & Tiryak gatdhamani. Among this three types of Dhamani only Tiryakgatdhamani & Rasvahadhamanya to all over body of garbha it causes Angapratyangposhan¹⁰

Acharya charak described as maternal food absorbed by foetus .Through maternal circulation nutrients, oxygen, antibodies provide to foetus fertilized ovum get implanted in endometrium.[three layers endometrium ,myometrium,perimetrium] with formation of germ layer in foetal development According to modern science two stages described in foetal nourishment

Before placenta formation

After placenta formation

Umbilical cord-it is conduit between developing embryo & placenta Umbilical Artery-supply blood & nutrients to foetus umbi.vein- this vein present during foetal development that carries oxygenated,nutrient rich blood from placenta into growing foetus. It provide convenient access to central circulation of neonate for restoration of blood volume .

Pulmonary circulation-is a portion of circulatory system which carries deoxygenated blood away from rt.ventricle to lungs, & returns oxygenated blood to left atrium & ventricle of the heart .vessels of pulmonary circulation are pulmonary arteries & pulmonary veins Systemic circulation-provides functional blood supply to all body tissue.

It carries oxygen & nutrients to cell & pick up carbon dioxide & waste products concept of conception- carries oxygenated blood from Lt. ventricle through the arteries to the capillaries in the tissues of the bod

Ayurveda	Modern
Matruhruday	maternal blood from heart
Rasvahininady	vessels from mother heart
Apara	Placenta
Nabhi	umbilicus
Nabhinadi	umbilical cord
Garbharktsanvahan	Foetal circulation
Shukra	sperm
Shonit	Ovum
Garbhashay	Uterus
Mansanumasik	monthwise foetal
Garbhavrudhhi	development

Ductus arterious – is blood vessels in developing foetus connecting the trunk of pulmonary artery to proximal descending aorta. It allows most of the blood from the right ventricle to bypass the foetus fluid filled non functioninglung.Upon closure at birth it becomes ligamentum arteriosum

Ductusvenosus - allows oxygenated blood in umbilical vein to bypass the liver &is essential for normal foetal circulation Blood becomes oxygenated in placenta & travel to the rt.atrium via umbilical veinthrough ductus venosus then to inferior vena cava.¹¹

Foetus get nourished with the help of maternal blood through Placenta .Acharya described garbhiniharpricharya,,garbhiniharrrasa importance in terms of Mansanumasikahar.

As per Ayurveda &Modenlitreatutre explained various term related to Garbhaposhan

Conclusion

For Healthy growth of foetus nourishment plays important role Nabhinadi, rasvahidhamani, are directly invoved structures in Garbhapposhan Aparais indirectly play a role in process of garnhaposhan. The deficiency condition placental & umbilical cord abnormalities which can lead to improper nourishment of fetus.

Garbhaposhan is the most important factors respncible for garbhaparivrudhhi.

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