

Effect of Garbhini Ahara-Vihara (Diet & Lifestyle in Pregnancy) On Garbhastha Sishu (Fetus) and Offspring

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Abstract

Ayurveda not only focus on preventive and promotional health but also has strong footing in the field of healthy progeny. *Garbhini Paricharya* refers to antenatal care or prenatal which recommends *Ahara* (specific dietary regimen) and *Vihara* (activity for physical, mental and emotional well being). In *Ayurveda*, *Garbhini paricharya* is divided in three categories such as *Masanumasik Pathya ahara* and *Vihara* (monthly dietary regimen and lifestyle), *Garbhasthapak karma* (diet and activities for maintenance of pregnancy and better progeny) and avoidance of *Garbhopaghatakar Bhavas* (diet and activities which are harmful to fetus). We always say “you are what you eat” it may also be true that “you are what your mother ate”. Modern medical science also believes that fetal growth is dependent on appropriate diet and life style of pregnant mother. Organogenesis is that period when important organ of fetus are developing. It is 6-10 wks of intrauterine life. During this period fetus is most at risk from birth defects caused by external factors. Many diseases and fetal development disorders are consider as being related to prenatal exposure to endocrine disrupting chemicals (EDC). The physical, mental, social, and spiritual well-being during pregnancy and practice of a wholesome regimen, play a prime role in achieving a healthy progeny.

In the present review article prime focus is given on effect of diet and life style of pregnant woman on fetus described in *Ayurveda* and modern medical science.

Keywords: - *Garbhini, fetus, Ahara-Vihara, Pranayama, endocrine disrupting chemicals (EDC).*

Introduction

Ayurveda not only focus on preventive and promotional health, but also has strong footings in the field of healthy progeny. Pregnancy is a beautiful period in women’s life. *Ayurveda* believe on “pregnancy by choice not by chance” and life of women is not complete until and unless she gets pregnant and gives birth. In *Ayurveda*, Regular supervision of a woman during pregnancy is called *Garbhini paricharya* (antenatal care). The term *Garbhini Paricharya* is a compound of two separate words i.e. *Garbhini* & *Paricharya*. According to *Amarkosha*, *Garbhini* means a woman in which *Garbha* is present ^[1] and ‘*Paricharya*’ means caring in every aspect. *Garbhini Paricharya* includes all aspects of care of pregnant women like *Ahara* (dietary regimen), *Vihara* (activities), *Pathya* (wholesome diet)

Apathya (unwholesome diet), *Yoga* and *Meditation* etc.

Ayurveda has beautifully explained a quotation regarding the care of pregnant women that the *Garbhini* should be treated just like a pot filled with oil as the slightest oscillation of such pot can cause spilling of oil similarly slightest stimulation in *Garbhini* can cause *Garbhapata* (abortion) or *Garbha vikriti* (anomalies in fetus). ^[2] In Modern medical science, antenatal care (ANC) is systemic supervision of pregnant lady including the examination & advice from beginning of conception to delivery. Modern medicine describes antenatal Care by describing antenatal Diet i.e. extra calorie diet, diet to Prevent Anemia, Personal Hygiene, Rest and Sleep, Exercise, Light Work, drugs prohibited and Coitus, etc.^[3]

In *Ayurveda*, *Garbhini Paricharya* (Antenatal care) advised for a pregnant woman can be summarized under following three categories such as *Masanumasik Pathya ahara* and *Vihara* (Monthly dietary and lifestyle regimen) *Garbhasthapak karma* (diet and lifestyle for maintenance of pregnancy and better progeny) and *Garbhopaghatakar Bhavas* (diet and lifestyle which are harmful to fetus) and.

Masanumasik Pathya Ahara (Monthly dietary regimen) during pregnancy:-

Ayurveda advised that *Garbhini* (pregnant lady) should take sweet, liquid, nutritive diet with good quantity of milk, freshly cooked rice, meat or meat-soup, butter extracted from milk, milk cooked with *Madhura* group of drugs and other congenial diet. Fetus derives its nutrition from mother, what so-ever she takes the *rasa* derived is divided in three parts i.e. for the nourishment of the mother, for nourishment of fetus and for development of breasts / formation of breast milk^[4]. The requirement of mother nutrition varies according to development of fetus and changes month wise.

Effect of excessive use of *Rasa* in pregnancy on fetus:-

The diet has to be balanced, excess use of any particular *rasa* or *Dosha* aggravating causes various congenital abnormalities or influences gene expression at a later life producing various diseases.^[5] If pregnant women take *Vata* aggravation diet then fetus may suffer from *Kubja* (dwarf), *Kuni* (Arm without hand or finger), *Pangu* (motionless limb), *Muka* (Dumb) and *Minmin* (Nasal voice)^[6]. If any body part of pregnant women is affected by the *Vatadi dosha*, then the same part of the fetus will also be get affected by *Vatadidosha*^[7]. If pregnant women take *Kapha Vardhak Ahara* then fetus may suffer from- *Kustha* (Skin diseases), *Kilasa*, Congenital teeth at birth, *Switra* (Lucoderma) and *Janmajata Pandu roga* (Congenital anemia)^[8].

Effect of Diet and environment in Pregnancy:-

EDC are natural or synthetic chemical molecules able to modify an organism's operation of the hormonal system^[9]. Many diseases and disorders of children are associated with prenatal exposure of endocrine disrupting chemicals (EDC), including low birth weight (LBW) baby^[10], premature delivery^[11], autism^[12], allergic disorders^[13], pubescent development disorders^[14] and even Cancers are also a possible consequence

^[15].

(1) Effect of Alcohol Consumption on fetus:-

Consumption of alcohol during pregnancy may result in abortion, fetal mortality and prematurity^[16]. Alcohol consumption during first five weeks pregnancy may harm embryos and fetus; such damage is referred to as fetal alcohol spectrum disorders (FASD)^[17]. Fetal alcohol syndrome (FAS) has a typical pattern of facial alterations, pre- and/or postnatal growth restriction associated with evidence of structural and functional changes in CNS changes due to intrauterine alcohol exposure^[18].

(2) Effect of Smoking on fetus:-

Exposure to tobacco smoke is considered most harmful and it is associated with high rates of long and short term morbidity and mortality for mother and child^[19]. Maternal smoking during pregnancy has also been linked with increase BMI in children (due to reduced height and increased amount of body fat^[20] and risk for obesity in childhood and adult life^[21].

(3) Effect of Physical and mental stress on fetus:-

Physical and mental stress such as grief, shock, anger, excessive exercise etc. influences on secretion of vasopressor hormones which lead to IUGR, Preterm and more chances of LBW babies associated, gestational diabetes and congenital defects. It can also affect development of brain and might lead to behavioral disorder in childhood period^[22].

(4) Effect of excessive coffee intake on fetus: -

Caffeine is rich source of foods such as coffee, tea, soft drinks, chocolates and its excessive intake increase chance of birth defect on fetus^[23]. Caffeine intake is negatively associated with low birth and placental weight, greater number of stillbirths, increased expression of apoptotic markers and altered placental and bone formation^[24].

Effect of Mode of life on fetus:-

A. **Abode:-** The abode of pregnant woman should be regularly fumigated and be free from mosquito etc.^[25]

B. **Bath:** – Pregnant women should take daily bath with water boiled with specific drugs capable of suppressing *Vata*^[26]

C. **Daily routine:** – *Garbhini* (pregnant women) should get up in the morning, worship the rising sun, fumes, homage and pray in loud voice or move in fresh air with deep breathing [27].

D. **Behavior:** - *Garbhini* (pregnant women) should be made to live in harmonious, happy atmosphere; behavior of everyone should be congenial and affectionate.

Mode of life which is harmful to fetus:-

Ayurveda believe that *Garbhini* (pregnant women) should not move in dirty, foul smelling places; avoid wine and other intoxicants, smoking and excessive exercise etc. [28]. Due to *Ati-vyayama* (physical activities or exercise in excess), *Ati-langhan* (excessive fasting), *Ati-vyavaya* (excessive sexual indulgence), *Ati-karshana* (Excessive emaciation because of affliction of disease) etc. affect the different organs or body parts in a pregnant women by vitiating the relative *Dosha* and that *Dosha* will also affect the same body parts or organs of fetus [29]

Effect of non fulfillment of Dauhrida:

Ayurveda describes that in 4th month of pregnancy mother consider as *Dauhrida* (one sense organ of mother and another of fetus). If pregnant mother is not having fulfilled desires during this period it can cause – distorted eyes or no eyes, Hump back, crooked arm and legs, mental retardation, dwarf, abnormality in sense organ, congenital abnormality and even death of fetus [30].

Drugs beneficial for maintenance of pregnancy (Garbhasthapaka dravyas):-

Ayurveda describes many *Garbhasthapaka aushadh* is in *Prajasthapana mahakashaya* such as *Aindri* (*Bacopa monnieri*), *Brahmi* (*Centella asiatica*), *Satavirya* (*Asparagus racemosus*), *Sahrshravirya* (*Cynodon dactylon*), *Amogha* (*Stereospermum suaveolens*), *Avyatha* (*Tinospora cardifolia*), *Shiva* (*Terminalia chebula*), *Arista* (*Picrorhiza kurroa*) *Vatyapushpi* or *Bala* (*Sida cardifolia*) and *Vishwasenkanta* (*Callicarpa macrophylla*) [31]. These drugs can be use orally by preparations of milk or ghee and cold decoction of these drugs for bath. *Acharya Kasyapa* has advised that amulet of *Trivrit* (*Operculina tharpethum*) should be tied in the waist of pregnant woman [32]. In present era many therapy such as music therapy, happiness in pregnancy, yoga, meditation etc. help to maintenance of pregnancy and better progeny.

How to live a Happy and Healthy life style during pregnancy:-

1. Music therapy in pregnancy:-

The infants of mothers exposed to music during pregnancy have significantly influences neonatal behavior. Many studies showed that 30 minutes music therapy per day for two weeks significantly reduced their stress, anxiety, and depression, when compared with participants who did not take music therapy [33].

2. Happiness in pregnancy:-

Children of depressed mothers may experience a delay in cognitive development, such as language delays and even lower IQ. Many studies indicate that the happiness during the pregnancy, the lower the chances of the baby facing mental and physical health challenges [34].

3. Yogasana in pregnancy:-

Yogasana in pregnancy reduces muscle cramps during third trimester, increases the flexibility of spine, tones up the lower body, improves digestion, relieves constipation, improves blood circulation, and relieves stress. Common *Yogasana* in pregnancy is *Vrikshasan* (Tree pose), *Vajrasan* (Thunderbolt pose), *Matsyakridasan* (Flapping fish pose) and *Marjariasan* (Cat stretch pose) etc.

4. Effect of Pranayam (Breathing exercise) in pregnancy:-

In Sanskrit, the *Pranayama* word is prepared by -‘*Prana*’ and ‘*Ayama*’. Here *Prana* means energy and *ayama* means the distribution of energy. *Pranayam* provides rich oxygenation to the blood and promotes a calmer mind and body. *Anulom* and *Vilom* is main *pranayam* which is practiced during pregnancy in each trimester. It provides more oxygen to the pregnant women and more oxygen is transferred to the fetus. *Swastikasana* and *Vajrasana* are the best *Yogasana* for practiced the breathing techniques. *Yogasana* and *Pranayama* is very effective in high risk cases of pregnancy also such as hypertension, asthma, Gestational Diabetes Mellitus, cardiac diseases diabetes and thyroid disorders. [35]

Discussion and Conclusion

Garbhini Paricharya aims at excellence in the formation of the fetus, its development without anomalies,

a secure full term normal delivery and maintenance of the health of the fetus. In this regard they divide whole *Garbhini paricharya* in three categories such as *Masanumasik Pathya ahara* and *Vihara* (Monthly dietary and activities regimen), *Garbhasthapak karma* (diet and activities for maintenance of pregnancy and better progeny) and *Garbhopaghatakar bhavas* (diet and activities which are harmful to fetus). *Acharyas* considers milk is an ideal product as a diet for pregnant women because it is a rich source of calcium, lactose and fat [36]. Milk help in relieving constipation which is common problem during pregnancy. In second trimester pregnant women mostly suffer from edema of feet and other complications of water retention. In 6th month Gokshura (*Tribulus terrestris*) is advised which act as good diuretic and prevent retention of water. In *Ayurveda* many *Garbhopaghatakar bhavas* (diet and activities which are harmful to fetus) described such is *Ati-vyayama* (physical activities or exercise in excess), *Ati-langhan* (excessive fasting), *Vegavidharana* (suppression of natural urges) and not fulfillment *Dauhrida* desires etc. But if *Garbhini* practicing *pranayama* then during labour minimum release of adrenaline and proper release of oxytocin which make labour easier and smoothen. There is urgent need to include this plan in RCH (Reproductive and Child Health) programme for maternal and fetal wellbeing. So that national goal may be achieved in more effective manner.

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