

## ***ROLE OF RASAYANA DRUGS IN GARBHINI PARICHARYA-A COMPREHENSIVE REVIEW***

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### **ABSTRACT**

The care of the pregnant woman during pregnancy reflects on the quality and health of the progeny. Therefore our *Acharyas* have given a detailed, systematic month wise regimen to be followed during the antenatal period. *Garbhini Paricharya* prescribes diet and lifestyle to be followed during pregnancy as it has direct effect on the mother and the child. *Rasayana* in *Garbhini Paricharya* is very beneficial for the mother to overcome the physiological hindrances of pregnancy such as gastric irritation, tiredness, mood swings, pain in calf and legs, pedal edema etc and for the fetus to have quality nourishment. *Rasayana* drugs possess mainly *Madhura Rasa*, *Sheeta Virya*, *Madhura Vipaka* with properties such as *Jivaniya*, *Balya*, *Brumhana*, *Garbha Sthapana*, *Ojas Vardhana* etc. As the word *Rasayana* defines itself as the one that brings about *Apyayana* of *Rasa Raktadi Dhatu*, the manipulation of these factors in the intrauterine life can give a definite scope in the growth and nourishment of the mother and fetus and also in the prevention of diseases. Rather than mere supplementation of iron, calcium and vitamins, nourishing the pregnant lady with something more which takes care of the deficiencies and also provide all round development of the fetus, including improvement of immunological status and prevention of diseases, can be considered as a complete antenatal care.

**Keywords:** Antenatal care, *Garbhini Paricharya*, Immunomodulatory, *Rasayana*

### **INTRODUCTION**

A woman's body goes through a great deal of hormonal, physiological and physical changes

during pregnancy. The way body is nourished during this process will affect maternal as well

as the fetal health. In a country like India where malnutrition is extensive, effecting both maternal and fetal wellbeing, it is essential that the pregnant mother suitably be advised regarding her diet, to achieve a healthy progeny from a healthy mother.

Ayurveda considers *Ahara* to be the best source of nourishment as well as medication for the pregnant woman. Adequate nutrition is needed for constant and proper development of embryo throughout the pregnancy. *Garbhini Paricharya* is a unique concept described in Ayurveda which describes supplementation of different drugs and diet having *Rasayana* properties during antenatal period. Following the dietetic regimens prescribed in *Garbhini Paricharya*, the pregnant woman remains healthy and delivers a child having good health.

Administration of different *Rasayana* drugs imparts benefits such as *Dirghayu*, *Medha*, *Arogya*, *Smriti*, *Prabha*, *Varna*, *Deha Bala*, *Indriya Bala*, *Kanti*, *Vyadhikshamatva*<sup>1</sup> etc. *Rasayana* nourishes and maintains the cell life, encourages the growth of new cells (regenerative), prevents recurrent infection, expels the damaged cells (immunomodulatory), eliminates the toxic metabolites and pollutants (antioxidant), maintains the balance between mind and body, stabilizes physiological process and promotes homeostasis (adaptogenic). Drugs having *Rasayana* properties also possess neuro-protective, haemopoietic, anabolic, nutritive and anti-inflammatory properties. Therefore the idea of administration of *Rasayana*, have a definite impact on the nutrition, growth,

immunity and all round development of the mother and fetus.

Recent research works and studies have established that, in poor nutritional conditions the fetus makes physiological adaptations in response to changes in the environment with limited nutrition supply and prepares itself for postnatal life by permanently 'programming' the body's metabolism and growth.<sup>2</sup> Thus, this stage of maternal life must be given utmost importance as the health of the mother and health of the fetus in long run, depend on the nutrition given to the pregnant women during this phase. During the pre-conceptual period or in the early stages of embryogenesis or even throughout the antenatal period, if supplementation of *Rasayana* drugs is offered to the mother, it may improve the quality of the budding embryo. As *Rasayana* does the *Prinana* of *Sarvadhātu*, supplementing *Rasayana* drugs at this early stage of development of fetus, the *Adhyadhātus* gets adequate nourishment along with the consequent nourishment of *Uttarottara Dhātu*, thereby forming healthy tissues. Present review summarizes the concept of *Rasayana* in *Garbhini Paricharya*.

## MATERIALS AND METHODS

A comprehensive review on the concept of *Rasayana* drugs in *Garbhini Paricharya* is carried out from classical texts of Ayurveda and is analyzed for the mode of action on the basis of reported research activities published in web based search engines.

## RESULTS AND DISCUSSION

Providing a healthy environment to the fetus in the womb is the basic necessity for which health status of the mother is very essential. To achieve this, Ayurveda has prescribed *Garbhini Paricharya*, *Masanumasika Pathya* and *Prajasthapana Aushadhi* which all together strengthens the tissues of the mother, there by a qualitative nourishment of the fetus takes place which directly influences the *Bala*, *Varna*, *Virya*, *Arogya* and immunity of the fetus. Considering the significance of tissue nourishment by the *Rasayana*, the concept has been utilized in the current context of *Garbhini*, where the specific needs will be taken care. Among different types of *Rasayana*, *Vatatapika* type of *Rasayana* can be applicable in *Garbhini*, favoring her with the convenience to continue her routine activities while being under the therapy. *Ajasrika Rasayana* can also be utilized by the routine consumption of nutritious diet such as milk, ghee etc., in order to maintain optimum health of the *Garbhini*. *Achara Rasayana* is also to be followed such as, being free from anger and violence, offering prayers to God and elders, indulging in peaceful and pleasing activities, etc. which have also been mentioned in *Garbhini Paricharya* and has positive effect on the mental health of the pregnant lady.

### Drugs mentioned in *Garbhini Paricharya*:

Drugs like *Amalaki*, *Ksheera*, *Mamsa Rasa*, *Ghrita*, *Navanita*, *Madhu*, *Sharkara* along with drugs mentioned in the month wise regimen such as *Shaliparni*, *Madhuyashti*, *Parushaka*, *Gokshura*, *Vidarigandhadi Varga*, *Jivaniya Gana Dravya* and *Madhura Gana*

*Dravyas* like *Bala*, *Gokshura*, *Kharjura*, *Draksha*, *Shatavari*, *Jivanti*, *Ashwagandha* etc. endowed with *Madhura Rasa*, *Sheeta Veerya*, *Madhura Vipaka* and with *Rasayana* properties are mentioned in *Garbhini Paricharya*.<sup>3,4,5</sup>

Majority of these drugs, besides promoting nutrition at the level of *Rasa*, *Agni* and *Srotas*, also possess different pharmacological activities which may be of great importance in many disorders in pregnancy such as pregnancy induced hypertension, intrauterine growth retardation, gestational diabetes, recurrent abortion and all those disorders having defective immunologic component involved in its pathology.

**Immunomodulation Activity:** *Rasayana* therapy helps to increase the immunity<sup>6</sup> in the mother by increasing the *Bala* and *Vyadhikshamatva*. Maternal infections like rubella, cytomegalovirus and toxoplasmosis in the first trimester which results in abortions and congenital malformation of the fetus may be prevented by *Rasayana* therapy. As pregnancy is said to be immuno-compromised state, it is apt to provide *Rasayana* as it boosts the immunity and prevent infections in the mother. Immunity is also passively transferred to the fetus through placenta, preventing infections in fetus and building immunity right from the intra uterine period. During pregnancy, administration of immuno-modulatory drugs like *Rasayana* may prevent recurrent infections, reduce the incidences of certain auto-immune syndromes and can boost immunity in fetus. Strengthening of immunity is done by promoting bodily defense mechanisms like increasing the WBC count

and by improving immune function. They also increase the number of immune cells known as T cells and B cells helping to fight infections.

**Adaptogenic Activity:** Adaptogenic activity of *Rasayana* drugs increases the endurance and sustaining capacity in individuals by promoting *Deha Bala*. It also increases the ability to adapt to various environmental factors. Adaptogenic drugs minimize the stress-induced damage, thus presenting stress-protective effects such as anti-fatigue, anti-infectious and restorative activities.<sup>7</sup>

**Nootropic Activity:** Incorporating *Medhya* drugs such as *Shankapushpi*, *Brahmi*, *Yashtimadhu*, *Jyotishmati*, *Vacha*<sup>8</sup> etc. in *Rasayana* therapy, helps in the development of mind, bring about positive effect on higher mental functions, intelligence and memory in the fetus. It may have effect on cerebral circulation and may enhance oxygen consumption and glucose utilization by the brain cells. By its property, it also prevents incidence of hypertension and pre-eclampsia by calming the mind, relieving the stress and maintaining mental equilibrium in the pregnant lady. Use of *Medhya Rasayana* may also alleviate the symptoms of anxiety, depression and other psychiatric manifestations of the mother during pregnancy and even during postpartum.

**Galactagogue Activity:** *Shatavari*, *Ashwagandha*, *Ksheera*<sup>9</sup> etc helps in increasing the growth and function of breasts. It purifies the milk and improves the lactation after the delivery.

**Anabolic activity:** Under-nutrition itself may be the cause for intrauterine growth retardation, anemia, pre-term deliveries etc.

Providing *Rasayana* drugs, act on the *Agni* and *Rasa Raktadi Dhatus* providing *Balya*, *Brumhana* and *Dhatu Poshana* action whereby all body tissues are nourished and malnutrition is effectively managed. *Rasayana* therapy with *Bala*, *Shatavari* etc. revitalizes maternal body, providing optimum nutrition and thereby helps in overcoming the physiological discomforts of pregnancy efficiently.

**Anti-Oxytocic Activity:** Pre-mature contractions, preterm labour, abortions can be prevented as the drugs like *Shatavari* contain anti-oxytocic effect<sup>10</sup>. It prevents premature contraction of the uterus by blocking the oxytocin induced contractions and thereby maintains the pregnancy throughout the term.

**Antioxidant activity:** Placental oxidative stress plays an important role in the manifestation of pre-eclampsia. *Rasayana* drugs like *Ashwagandha*, *Shatavari*, *Vacha*, *Yashtimadhu* possess antioxidant property. Antioxidants are important for prevention of pre-eclampsia and hypertensive disorders.<sup>11,12</sup> Also the edema due to the above conditions is effectively prevented by *Gokshura* and *Prithakparni* by its diuretic and anti-inflammatory properties.

**Rasayana in placental insufficiency:** Due to the deficient growth and abnormal function of the placenta, the transfer of oxygenated blood and nutrition is hampered causing placental insufficiency leading to intrauterine growth restriction, oligohydromnios etc. According to Ayurveda, *Nabhi Nadi* and *Apara* are formed by *Rasa* and *Rakta*.<sup>13</sup> *Rasayana* nourishes *Rasa Raktadi Dhatus*. Administering *Rasayana* drugs may thus support the growth and functioning of placenta and umbilical cord,

preventing such conditions effectively. Also in multiple pregnancies, there are some degree of discordant growth in the fetus causing low birth weight and poor nourishment in the fetuses mainly due to placental insufficiency. Providing *Rasayana* drugs, act on the *Agni* and *Rasa Raktadi Dhatus* providing *Bala* and *Pushiti* to the tissues. It supports and enhances placental functioning and distributes nutrition effectively among the fetuses.

**Benefits of Garbhini Rasayana:**

*Rasayana* therapy is a comprehensive and specialized regimen capable of causing health, longevity and improved mental faculty by acting at the level of *Rasa* (nutrition), *Agni* (digestion and metabolism) and the *Srotas* (microcirculation), thus enabling the organism to procure the best qualities of different *Dhatus* and thereby enhances the immunity.<sup>14</sup>

The fundamental underlying the theme of *Rasayana* is nutrition. *Rasayana* in *Garbhini* helps in circulation of nutrients needed to provide nourishment to the body tissues and tissue perfusion. It is conducive to the promotion of the qualities of *Dhatus*. The improved nutritional status and the better qualities of *Dhatus* bring about longevity, immunity, improved mental and intellectual competence etc. Further, the *Rasayana* therapy in a pregnant woman adds to the excellence of nutrition and excellence of the fetal nourishment.<sup>15</sup>

*Rasayana* drugs contain immuno-modulators of varying chemical structures and molecular sizes. Immuno-stimulants enhance antigen specific and non-specific immune response against infection. *Rasayana* prevents free radicals from oxidizing sensitive biological

molecules or reduce the formation of free radicals. It stimulates detoxification mechanism and slows down the ageing process and prevents diseases. *Rasayana* protects the cells against adverse effects of xenobiotics and carcinogens. *Rasayana* act through the mechanism of specific molecular nutrition to the target organs. Studies have proven that the effect of *Rasayana* can reach to each and every cell, even up to the level of DNA. Hence, the response of every primitive cell of the fetus can definitely be influenced positively by the administration of the *Rasayana*.

**Rasayana in maintaining the intrauterine environment:**

Nutrition is the major intrauterine environmental factor that alters expression of the fetal genome and may have lifelong consequences. Alterations in fetal nutrition may result in developmental adaptations that permanently change the structure, physiology and metabolism of the offspring, thereby predisposing individuals to metabolic, endocrine and cardiovascular diseases in adult life. The intrauterine environment also plays a major factor contributing to various fetal health hazards. Increasing evidences propose that the intrauterine environment and nutrition plays the most critical role in influencing placental and fetal growth.<sup>16</sup> Available data suggests that the fetal growth is most vulnerable to maternal dietary deficiencies of nutrients during the peri-implantation period and the period of rapid placental development. Maternal under-nutrition during gestation and babies exposed to both nutritional and non nutritional stress during different critical

periods of development, ultimately results in a disease state. Promoting favorable intrauterine environment reduces the risk of chronic diseases.

*Rasayana* having immunomodulatory and nourishing action maintains congenial environment in the uterus for normal development of fetus.

### **Rasayana in the context of “fetal origin of adult diseases”:**

Fetal nutrition is a key regulator of fetal growth. The fetal adaptations because of altered nutritional status leading to altered intra uterine environment, results in many complications later on. Professor David Barker believed that, the diseases are explained by bad genes and unhealthy adult lifestyles and proposed that their roots lie in the early life environment. The nourishment a baby receives from its mother and its exposure to infection after birth, determines its susceptibility to chronic disease in later life, by permanently ‘programming’ the body’s metabolism and growth. Thus it is suggested that the fetus makes physiological adaptations in response to changes in its environment to prepare itself for postnatal life. Those who actually develop in a poor environment may be more prone to disorders whereas those who have received a positive maternal forecast will be adapted to good conditions and therefore better able to cope with rich diets.<sup>17</sup>

Gluckman and Hansons ‘predictive adaptive response’ (PAR) phenomenon<sup>18</sup> states that these adaptations are often reversible. However, if the environmental changes persist, the fetus is forced to make irreversible adaptations that will manifest themselves in later life. Therefore, providing positive

maternal environment and proper nutrition by *Rasayana* therapy at the earliest, the permanent adaptation or programming of the fetus to poor nutritional status can still be reversed, sparing the child from chronic diseases in later life.

### **CONCLUSION**

*Garbhini Rasayana* is a unique concept described in Ayurvedic classical texts. Different drugs and dietary articles having *Rasayana* properties are prescribed during pregnancy. The use of *Rasayana* drugs may produce non-specifically increased resistance against stressful situations. *Rasayana* makes the mother and her tissues healthy which creates a favorable environment in-utero for the fetus to survive and to get the best out of it. It supports the maternal nutrition and also plays major role in fetal nourishment. Thus *Rasayana* therapy introduces a new concept of nutrition and its relevance to the qualities of tissue nourishment, longevity, immunity, mental competence and ability is vital in *Garbhini Paricharya*.

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