

**PRE-EMPTIVE REGULATIONS OF COVID-19 DURING PREGNANCY
- AN AYURVEDIC VIEW**Nikitha Sirigere¹, Noor Fathima², Laxmi Kirana P³

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Article Received: 19/02/2021 - **Peer Reviewed:** 26/02/2021 - **Accepted for Publication:** 05/03/2021**ABSTRACT**

Pregnancy is a phenomenal and remarkable time in any woman's life which requires added care and attention. Pregnancy is a sensitive state where the woman is more susceptible for infections. Amidst the Global Pandemic of Covid-19 special awareness and protection is of considerable necessity. In this view, *Ayurveda* being the Traditional Indian Medicine plays a crucial role in safeguarding the mother along with the growing fetus. Classical reference gives emphasis to the use of herbal drugs (*Garbhasthapaka dravyas*) which possess Anti-oxidant and Immunomodulator properties. *Ayurveda* also provides the evidence of *Ahara*, *Vihara*, *Aushada* & *Sadvritta* which is imperative in every pregnant women. In this phase, as the body demands extra nutrition for the developing fetus the periodic dietetic regimens quoted help deliver a child possessing good health, energy and strength. Besides this, *Yoga* is one unique technique (gentle movements and slow breathing methods) which is safe and effective during pregnancy. Hence an effort is made to understand systematic preventive measures of *Ayurveda* in pregnancy through this Pandemic.

Keywords : Covid-19, *Garbhashtapaka dravyas*, *Garbhini Paricharya*, Pregnancy

INTRODUCTION

Pregnancy is the term used to describe the period in which a fetus develops inside a woman's womb or uterus. Various physical and physiological changes during pregnancy are related to interplay between various hormones.¹ This is principally a phenomenon of maternal adaptation to the increasing demands of the growing fetus.² Pregnancy in a small proportion of women can alter severe viral infections. Hence pregnant women placed in vulnerable category is caution. Some viral infections are worse in pregnant women, than other healthy adults if they develop covid-19 infection. Pregnant Women who are over weight, and those who have pre-existing medical problems such as high blood pressure and diabetes also appear to be at higher risk of developing severe illness. Regarding the aetiopathology of the physical & systemic disorders that occur in the pregnant women it is same as in normal individual but principal of treatment differs as they can affect and harm the fetus.³ As the growth of the fetus solely depends upon the health and nutrition of the mother, **Dietary regimen** in pregnancy is one of the most essential aspect which should be taken care of to produce a positive healthy outcome.

Systemic Regulations In Ayurveda

Pregnant women with moderate or severe symptoms should be hospitalised mandatory for emergency care. Ayurvedic therapy should be considered only in pregnant women presenting with negative for COVID-19 test. This includes the class of drugs beneficial for maintenance of pregnancy (*Garbhashtapaka dravyas*)⁴ mentioned in classical text. There are also multifold drugs with *Rasayana* properties like *Amalaki*, *Ashwagandha*, *Shatavari* and *Yastimadhu* which helps enhance the immunity by increasing the health (*Bala*) and fight disease (*Vyadhi kshamatva*). Pregnant women being more susceptible for infections like TORCH etc. results in abortions and repeated loss of pregnancy which may be prevented by these drugs.

Herbal Drugs During Pregnancy

Amalaki - Being a best *Rasayana*⁵ protects the body by subsiding the aggravated *Doshas* in addition to Antianaemic, Antioxidant and Antiviral pharmacological response⁶ considering this view, pregnancy is one such stage where the infections are commonly observed. *Amalaki* possessing the activity of Antiviral and Antioxidant properties best counteracts the harmful effect of *Garbopaghatakara bhavas* (harmful factors for the fetus) and helps in the appropriate maintenance of *Garbha*, prevents miscarriage and abortion. Hence the properties of *Rasayana* advance the immunity and prevent infections in fetus and frames right stability from the intra uterine period.

Part used : Fruit (The fruit can be consumed safely all round the year)

Dose: Powder 3 - 6gms

Ashwagandha And Yastimadhu

Both possess Antioxidant property. Antioxidants are important for prevention of Pre-eclampsia and Hypertensive disorder^{7,8}. Also the oedema due to these condition is effectively prevented by *Ashwagandha*⁹ and *Yastimadhu*¹⁰ by its Diuretic and Anti-inflammatory properties. In addition, both are effective in reducing stress and anxiety⁹ possessing Antistress and Antidepressive activity¹¹. As the fetus is completely dependant on the mother for its growth and nutrition, due to the vitiated *vata* the fetus gets dried up and does not attain proper growth¹² (IUGR) which is best estimated by the fetal size and fundal height¹³. As the two drugs acquiring the *Vatahara* along with *Balya* and *Bruhmana* properties help in good nourishment and growth of fetus.

Dose: Powder 3-6gms (The above drugs should be taken orally along with milk)

Shatavari

Premature contractions can be prevented by *shatavari* containing Antioxytotic effect¹⁴. *Shatvarin IV* is a glycoside of sarasapogenin. The saponin in doses of 20-500 mcg / ml produces a special blockade of syntocinon (oxytocin) induced contractions of rat,

guinea - pig and rabbit uteri in vitro and in situ. It also blocks the uterine spontaneous motility. Hence maintains trouble - free pregnancy throughout intrauterine life.

Formulation : *Shatavari grita*¹⁵ indicated as best uterine tonic and Galactogogue.



GARBHINI WITH JWARA

The combination of *Raktachandana*, *Sariva*, *Lodhra* & *Munakka (draksha)* all taken in equal quantity, prepared *Kwatha* and added *Sharkara* as *Prakshepa* is best indicated in *Garbhini Jwara*¹⁶. *Sariva* being *Tridosahara*, *Jwaraghna* & *Dahaprashamana* is the best drug of choice possessing *Kasaghna* & *Swasahara* properties¹⁷. *Lodhra* possessing *Kapha Pittahara* & *Jwaraghna* properties used as a specific remedy for uterine complaints.¹⁸ The Ayurvedic Pharmacopia of India recommends dried mature fruits in anemia, constipation, cough and dyspnoea.¹⁹ The above prescription can hence be recommended very safely in *Garbhini Jwara* which is good at nourishing, blood purifier and Antioxidant.

Garbhini With Kasa & Shwasa

Yastimadhu(*glycyrrhiza glabra*) derives its flavours principally from a sweet tasting compound called Anethole. Additional sweetness in licorice comes from

Glycyrrhizic acid, an Antiviral compound. Powdered licorice root is an effective expectorant. The roots of plants are used for throat and upper respiratory tract related infections & contain many phenolic compounds such as flavanoids and their glycosides, coumarin & cinnamic acid derivatives.

The active compound Triterpine saponins particularly Glycyrrhizic acid have shown Antiviral activity. Poly saccharide fractions obtained from *glycyrrhiza glabra* stimulate macrophages and hence elevate & assist immune stimulation. Glycyrrhizic acid present in the plant inhibits virus growth & inactivates virus particles²⁰. Thus, *Yastimadhu* possessing Glycyrrhizic acid best counteracts the viral infections & has been effectively used in throat & upper respiratory tract infections. In addition to its Antioxidant properties it best nourishes the fetus and stimulates immune system throughout pregnancy.²¹

Formulation : Powder 3 – 6 gms twice daily along with honey.

Garbhini Paricharya

As said in classical text it is very much satisfactory and acceptable. The systems traditional action justifies excellent assistance for a confident and healthy outcome²². *Ayurveda* follows the concept of **Dinacharya** which says that natural cycles are important for health. Hygiene, including regular bathing, oral hygiene, skin care & diet is also a central practice²³. *Ayurveda* has depicted various rules & regimen (**Ritucharya**) regarding behaviour to acclimatize seasonal enforcement easily without altering body homeostasis. The prime principle of *Ayurvedic* system of medicine is preventive aspect which can be achieved by practices in response to change in climate condition. Lifestyle disorders being very common originating from lack of following seasonal regimen²⁴.



Periodic Diet Administration

During First Trimester

The reference on **Madura, Sheeta, Drava Ahara** indicated during the first three months checks dehydration, supplies appropriate nourishment, & thereby maintains pregnancy²⁵.

Milk is the best & most complete of all foods. It is a fine blend of all the nutrients necessary for growth & development. Milk is a good source of proteins, fats, sugars, vitamins & minerals. It provides good bone health, good immune system, prevention of illness such as -HTN, osteoporosis, dental decay & respiratory problems.

During Second Trimester

The utility of **Ghritha** (Ghee), **Navaneeta** (Butter) & **Rice** (Carbohydrates) during the next three months plays a major role in the maintenance of pregnancy.²⁶

Ghritha – Promotes *Smruti, Buddhi, Agni, Shukra, Oja, Kapha & Meda*. It is the richest source of milk fat. It is Rejuvenator, nutritive, protects bone marrow & nerve tissue. It promotes fertility, immunity, vision, intelligence, liver function, enzyme function in intestine & liver tissues. It is rich with Antioxidants & acts as an aid in the absorption of vitamins & mineral from other food.

Navaneeta – It has Anti- tumour & Anti-cancer properties. It protects against tooth decay & builds the

muscle. It contains fats, vitamins & minerals. It is extremely rich in vitamin & minerals which regulates cell growth & protects fertility & immune system. Folate (called folic acid when in supplement form) helps prevent Neural tube defects, such as Spina bifida. Iodine is needed for Brain & Nervous system development. Iron helps prevent anaemia in the mother, as well as low birth weight in the baby.

Rice – Carbohydrates are important & supply energy for the growing fetus. It provides the body & brain with energy that enables them to work effectively.

During Third Trimester

The **Maamsa rasa** used in pregnancy, is rich in Proteins serves as the building blocks for the tremendous growth of the body tissues during pregnancy.

Enema – counters constipation and increase energy. Strengthens the pelvic floor & thigh muscles. Due to the correct pathway of *vayu* the women delivers without difficulty & remains free from complications.

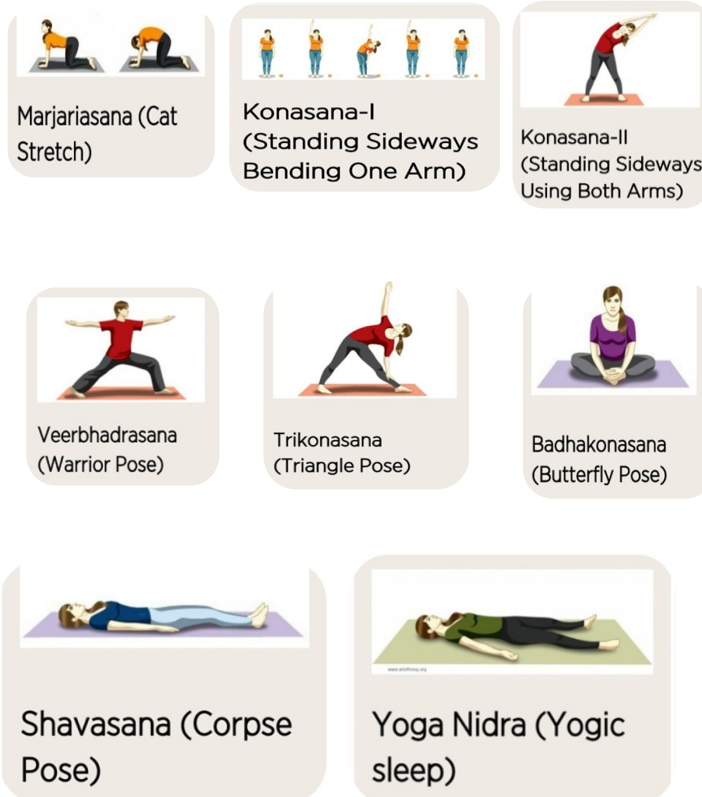
YOGA FOR PREGNANT WOMEN

- Yoga provides holistic health benefits.²⁷
- Yogasanas help keep the body supple. They relieve tension around the cervix by opening up the pelvic

region. This prepares to be mothers for labour & delivery.

- Yoga & pranayama can train you to breath deeply & relax conciously.
- Helping you the demands of labor & chidbirth.
- Yoga helps alleviate the effect of common symptoms such as morning sickness, painful leg cramps, swollen ankles & constipation.
- Yogasanas also help pregnant women recover faster post- delivery.

Given here are a few simple exercises which will go a long way towards making you healthier & fitter during pregnancy -



Pranayama Or Breathing Exercises During Pregnancy



Bhramari
Pranayama (Bee
Breath)



Nadi Shodhan
Pranayama
(Alternate Nostril
Breathing
technique)

Pranayama releases negative emotions like anger & irritability. They also help release stress, thus keeping the mind calm & composed.

Yoga Precautions For Pregnant Women

- During the advanced stages of pregnancy, one should avoid yogasanas that put pressure on abdomen.
- For the first trimester of pregnancy, one should do standing yoga poses. This will help strengthen the legs & enhance circulation. It can even reduce leg cramps.
- During the second & third trimester, reduce the time spent holding asanas shown above to prevent fatigue. Hence, substitute with breathing exercises & meditation.
- Pregnant women should avoid practising yoga during 10th to 14th week of pregnancy since these are crucial times.

Yoga Poses To Avoid During Pregnancy

1. Naukasana (Boat Pose)
2. Chakrasana (Wheel Pose)
3. Ardha matsyendrasana (Sitting half spinal twist)
4. Bhujangasana (Cobra Pose)
5. Halasana (Plow Pose)

It is advisable to consult a doctor before taking up any yoga schedule during pregnancy. Learn & practice yoga postures under the supervision of a trained yoga teacher.

Rasayana In Pregnant Women

1. *Phala grita*²⁸ 1tsp twice daily.
2. *Kalyanaka grita*²⁹ 1tsp twice daily.

Pregnant women with pre-existing systemic disorders like Diabetes & HTN, should sidestep the following

above mentioned treatment & should consult a doctor for further analysis & cure.

Sadvritta (Good Conduct & Behaviour)

*Saumya manonukula katha shravana*³⁰ is well narrated in our science - for a woman who desires a perfect child. Pregnant woman should be entertained with talks which are gentle and pleasing to her mind. Listening actively to pleasant Mythological stories is more effective and acceptable which helps in enhancing the growth, development & stabilizing the fetus. *Suvadya ghosha*,³¹ Playing soothing and melodious sounds of musical instruments in the surroundings helps keep the woman devoid of anxiety and stress.

Music Therapy In Pregnancy

Pregnancy is a wonderful time to prepare for your child's birth & music can play an important role in shaping those months into something special. Pregnancy is a unique & stressful period for many expectant mothers, they suffer anxiety and depression because of the long time period involved. Any intervention that reduces these problems is to be welcomed. Listening to suitable music provides a simple, cost-effective, non-invasive way of reducing stress, anxiety & depression during pregnancy³².

Best during – 2nd & 3rd trimester

Choice of music – Nature sounds or Lullabies

Benefits

- Music reduces pregnancy stress levels.

- Music helps strengthen the bond with your unborn child.³³

DISCUSSION

In this global crisis, COVID-19 the pre-emptive regulations & its importance is well explained in our science. In this view the state of pregnancy being vulnerable for infections additional care and attention to be taken. Certain traditional herbal medicines with natural compounds like Anti-oxidant, Immunomodulators, Antiviral and Anti-inflammatory properties etc reduces the risk of infections (viral, bacterial and TORCH), complications & thereby helps maintain healthy pregnancy throughout. Further, *Garbhini Paricharya* (Systemic Regimens) plays an essential & safe antenatal care which recommends – *Ahara, Vihara* to assist develop the fetus without anomalies, benefits to nourish and support full term normal delivery. Accompanying with Yoga and breathing techniques during pregnancy increases oxygen supply towards the fetus, reduces anxiety, helps promote sound sleep and capacity to withstand labour pain in mother. Music therapy also connects women to the fetus inside and allows to discover a new bond & strength within.

CONCLUSION

Ayurveda being the science of life, promulgates the gifts of nature in maintaining healthy and happy living. *Ayurveda's* comprehensive knowledge based on preventive care, derives from the perception of '*Dinacharya*' - Daily regimes and '*Ritucharya*' - Seasonal regimes to maintain wellness of life. The simplicity of awareness about oneself and the harmony each individual can achieve by uplifting & maintaining his or her immunity is emphasized across the traditional literature. Classical scriptures provides a number of preventive and curative measures for ensuring the safety and good health of both mother and fetus, thereby avoiding the complications during pregnancy like Stillbirth, Abortion, Preterm delivery, PPH, etc. Following the selfcare guidelines (*Ahara, Vihara, Aushadha & Sadvritta*) for preventive health measures and boosting immunity in this crisis of Covid-19 helps

the mankind to re-establish Physical, Psychological and Social wellbeing.

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