



Ayurveda approach in the management of Covid-19 in pregnancy- A review study.

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ABSTRACT

The covid-19 Pandemic in india is part of the worldwide pandemic of coronavirus disease 2019 (Covid-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first case of Covid -19 in India which is originated from china. COVID-19 is type of coronavirus disease belonging to the Family Coronaviridae. The disease is originate through bats and spread from unknown medium to People. Ideally, the condition is spread by Inhalation or close contact with infected patient's Droplets. Incubation Periods in between 2 and 14 days there are so many infections and Death that have been caused by the disease. The symptoms of disease include fever, cough, Sneezing, sore throat, difficulty in breathing, generalized weakness. The diagnosis of disease is

depends upon multiple symptoms of upper and lower respiratory tract. Based on the available evidences, various clinical guidelines for management of COVID-19 have been formulated. Ayurveda has documented the first reference of epidemics as *Janapadodhwamsa* and has given a scientific insight to its causes, effect and prevention along with management strategies. This article intends to compile and summarise guidelines from esteemed organisations along with their implication in the Indian ethical scenario, and offers an easy tool for clinicians managing pregnant women in times of COVID-19. The clinical profile of COVID-19 matches with *Vata-Kapha* dominant *Sannipataja Jwara* for which detailed treatment guidelines and array of pharmaceutical preparations are described in *Ayurvedic* literature which are being practiced by qualified *Ayurvedic*

physicians effectively since long. This is highlights the *Ayurvedic* perspective of the COVID-19 along with its prevention, prophylaxis and management strategies through *Ayurveda*

Keywords:

COVID-19, SARS CoV-2, *Ayurveda*, *Vata Kaphaja Jwara*, *Janapadodhwamsa*, Antenatal care

INTRODUCTION

Pregnancy is the most important and critical and precious part of every woman's life so that systematic Examination as well as healthy diet and other advice which are helpful for boosting her immunity are very important; this systematic supervision is called as *Garbhini Paricharya* (Anti Natal Care).

There is a new public health crises threatening the world with the emergence and spread of 2019 novel coronavirus (2019-nCoV) or the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Its impact on pregnant women is not yet clear owing to limited data and the knowledge is evolving in several aspects. Supervision should be regular and periodic in nature and according to need of *Garbhini* (ANC Mother). *Ayurveda* considers food to be the best source of nourishments as well as medication for the pregnant woman. *Ayurveda* has been described concept of the nine month diet in *Garbhini*. This diet changes in according to the growth of the foetus in the womb and at the same time ensures health of the mother. The things which are contraindicated in pregnancy are

known as *Garbhopaghatakara Bhavas* and avoidance of these things is necessary for well being of foetus. In this paper we have described monthly dietary regimen and Living style for whole pregnancy according to *Samhita*. Considering the mode of transmission (Oro-nasal route through droplets/hand contact), Covid-19 has *Agantuja hetu* (external cause i.e. SARS-CoV 2). Disease symptoms manifest abruptly without having the prodromal phase when the cause is *agantuj* and the clinical presentation will depend upon the status of already deranged *doshas* at the site where they are maximally concentrated. After gaining entry in a host *Agantuja hetu* ultimately leads to derangement of *Sharirika dosha* (*Vata*, *Pitta* and *Kapha*) and gets converted to *Nija* (internal) type⁴⁵ following the incubation period (variable, from 2-14 days in COVID19).

Although the route of entry of SARS-CoV-2 is Oro-nasal and it mainly hits the respiratory system but multiple organ system involvement is seen in different hosts.

SARS CoV-2 after entering the body, leads to derangement of *Shareerika dosha* and manifests mainly as *Rasapradoshaja* diseases like *Jwara* (fever) and *Arasadnyata* (loss of taste) along with *Pranavaha srotodushti* symptoms (Pulmonary symptoms) like *Shwasa* (dyspnoea) and *Kasa* (cough). *Annavaha Srotodushti* (digestive system) symptoms like *Aruchi* (anorexia), *Chardi* (vomiting) and *Purishavaha srotodushti* (excretory system) symptoms like *Atisara* (diarrhoea) are also not uncommon.

Other associated symptoms of COVID-19 are headache, body aches and arthralgia which are general symptoms associated with all the fevers. In severe stage, disease manifests as pneumonia, ARDS, shock, coagulation disorders with multi organ failure.

All these symptoms are described in *Jwara* under different types and COVID-19 can be categorized as *Vata-Kapha* dominant *Sannipataja Jwara* with variable involvement of *Pitta*. Hence, the line of treatment mentioned under *Jwara chikitsa* must be adopted for its management. In addition to this, principles of *Shwasa* and other diseases like *Atisara* (Diarrheal diseases), *Chardi* (Vomiting), *Raktapitta* (bleeding disorders and Coagulopathies) can be employed depending upon the presenting case. *Jwara* (fever) according to Ayurveda arises from *Amashaya* and has been classified as a disease due to vitiation of *Rasavaha srotas*. Aggravated *Dosha* (*Vata*, *Pitta* or *Kapha*) due to underlying etiology, either alone or in combination of two or three, gets mixed with the improperly formed *rasa* (the first *Dhatu* formed after digestion) which cause sluggish circulation and further blocks the micro channels of *rasa* and *sweda* (thermoregulatory apparatus). The *Agni* (digestive fire) gets displaced out of its original site (*Paktisthana*), spreading out through the body which is not able to dissipate heat due to blocked sweat channels, causing fever. Moreover, displacement of *Agni* from its seat impairs all the metabolic functions of the body and leads to impaired immune response. Greater the derangement of *Agni* greater will be the accumulated *Dosha* and

poor will be the prognosis as is seen in Covid-19 cases with co-morbidities like hypertension, diabetes, cardiac and hepatic disorders, cerebrovascular accidents, cancer and cases with renal impairment.

AIMS AND OBJECTIVE

- To understand the mode of action of *Ayurvedic* Perspective and Management in Covid-19
- To review of covid -19 *ayurvedic* approach and management.
- To understand the mode of Action and Effect of covid-19 on pregnancy and Fetus

Effect of COVID-19 on Pregnancy

Pregnant women do not appear more likely to contract the infection than the general population. However, pregnancy itself alters the body's immune system and response to viral infections in general, which can occasionally be related to more severe symptoms and this will be the same for COVID-19. Reported cases of COVID-19 pneumonia in pregnancy are milder and with good recovery. In other types of coronavirus infection (SARS, MERS), the risks to the mother appear to increase in particular during the last trimester of pregnancy. There are case reports of preterm birth in women with COVID-19 but it is unclear whether the preterm birth was always iatrogenic, or whether some were spontaneous. Pregnant women with heart disease are at highest risk (congenital or acquired). The coronavirus epidemic increases the risk of perinatal anxiety and depression, as well as domestic violence. It is critically important that support for women and families is strengthened as far as possible; that women

are asked about mental health at every contact.

Effect on Foetus :

- There are currently no data suggesting an increased risk of miscarriage or early pregnancy loss in relation to COVID-19.
- There is no evidence currently that the virus is teratogenic. Long term data is awaited.
- COVID-19 infection is currently not an indication for Medical Termination of Pregnancy.

Antenatal Care

- Women should be advised to attend routine antenatal care, tailored to minimum, at the discretion of the maternal care provider at 12, 20, 28 and 36 weeks of gestation, unless they meet current self-isolation criteria.
- For women who have had symptoms, appointments can be deferred until 7 days after the start of symptoms, unless symptoms (aside from persistent cough) become severe. Foetal Kick count to be maintained.
- If needed to visit health centre, should take own transport or call for Ambulance, informing the ambulance staff about her status.
- For women who are self-quarantined because someone in their household has possible symptoms of COVID-19, appointments should be deferred for 14 days.
- Any woman who has a routine appointment delayed for more than 3 weeks should be contacted. (In rural areas ANMs/ASHAs can contact by

telephone/ routine household visits with PPE).

- Even if a woman has previously tested negative for COVID-19, if she presents with symptoms again, COVID-19 should be suspected.
- Referral to antenatal ultrasound services for foetal growth surveillance is recommended after 14 days following the resolution of acute illness.

COVID-19 in Ayurveda

Ayurveda revealed that it is not always possible to name a disease in a definite term. Hence, this disease has to be analyzed according to the *Nidana Panchaka* theory of *Ayurveda* based on the concepts of *Dosha*, *Dushya*, *Srotas*, *Samprapti*, and its management. Since the *Vedic* period, *Ayurveda* practitioners have an insight into the existence of microorganisms inducing infectious diseases. The word *Krimi* was referred to as an infectious agent in Vedas. Ancient Indian classics described nearly 100 types of infectious agents. In Mahabharata, *Vedavyasa* narrated the unavoidable existence of *Krimi*. It is also mentioned in classics that *Mahamari* (communicable diseases) can spread from one person to another through air, water, animal, flies, and physical contact.

Historical evidence of infections and epidemics in Ayurveda

When any disease or conditions like natural calamities or disasters affected a *Janpad*, it was called as *Janpandodhwansa*. Factors responsible for such an outbreak resulting in mass casualties are as follows

- Deranged *Vayu* (air),
- *Jala* (water),
- *Desh* (land)
- *Kala* (seasons).

These four factors are in common to habitants of an area which when vitiated are responsible for outbreak of a disease. Sins of present life and bad deeds of past life, *Pragyaparadha* (intellectual misconduct), *Adharma* (unrighteousness) have been ascribed as the root cause of such type of calamities.

Ayurvedic approach to Covid-19

Considering the mode of transmission (Oro-nasal route through droplets/hand contact), Covid-19 has *Agantuja hetu* (external cause i.e. SARS-CoV 2). Disease symptoms manifest abruptly without having the prodromal phase when the cause is *agantuj* and the clinical presentation will depend upon the status of already deranged *doshas* at the site where they are maximally concentrated. After gaining entry in a host *Agantuja hetu* ultimately leads to derangement of *Sharirika dosha* (*Vata*, *Pitta* and *Kapha*) and gets converted to *Nija* (internal) following the incubation period (variable, from 2-14 days in COVID-19). Although the route of entry of SARS-CoV-2 is Oro-nasal and it mainly hits the respiratory system but multiple organ system involvement is seen in different hosts. SARS CoV-2 after entering the body, leads to derangement of *Shareerika dosha* and manifests mainly as *Rasapradoshaja diseases* like *Jwara* (fever) and *Arasagyata* (loss of taste) along with *Pranavaha srotodushti* symptoms (Pulmonary symptoms) like *Shwasa* (dyspnoea) and

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Pathophysiology

The pathological complex can be conceptualized as “*Bhuta-abhishangajvara*” in *Ayurveda* (~fever due to infection of microbial organisms). Contributing aetiologies in the morbidity are *Nija*(~endogenous factors) and *Agantuka*(~exogenous factors). It can be correlated to *Aagantuja jvara* with (infectious disease) with a special reference to *Vata* dominant *jvara* (fever in *Ayurveda*), further manifested as the consequence of *Janapadodhwamsa* (epidemic). In this case, exposure to the virus refers to exogenous aetiology and exertion contributed to the pathology. The *doshas* inflict *rasa vaha srotas* and *sweda vaha srotas*, the foetus gets its mean of survival from *rasa vaha srotas*, thus it may also be affected by *jwara*. describes the pathogenesis of COVID 19 in pregnancy.

Management:

Decoction of *madhuka*, *candana*, *sariva*, *usira*, *madhuyasti* and *padmaka* mixed with honey and sugar is beneficial.

Decoction of *candana*, *sariva*, *lodhra* and *mrdvika* mixed with sugar should be prescribed.

Water medicated with *payasya*, *sariva*, *pathya*, *nagara* should be given for drinking. *Hriberadi* decoction prescribed for diarrhea is also beneficial.

Decoction of ayurvedic drugs like *Tulsi*, *Guduchi*, *Shirish*, *Neem* and *Yastimadhu* can prove to be an elixir for pregnant woman in COVID-19 pandemic and will aid to prevent and treat COVID-19 symptomatically as these drugs possess Antiviral, Anti-bacterial, Anti-oxidant, Anti-inflammatory, Anti-allergic and Immune-modulatory effects.

The *ayurvedic* properties of drugs and its effect on respiratory system & basal body temperature. the chemical constituents and biological activities of *ayurvedic* drugs effective for pregnant women in COVID-19 pandemic.

Sanshamani Vati (*Guduchi ghana Vati*) 500 mg with a frequency twice a day.

Guduchi (*Tinospora cordifolia* (Willd.) Hook. f.) has *Rasayana*, *Balya*, *Agnidipana* and, *Tridoshshamaka* activity.

Sitophaladi churna 2 g mixed with 125 mg of *Godanti bhasma* was advised to be taken twice a day with lukewarm water.

Godanti bhasma has *Madhur Vipaka* and *Sheeta veerya*

Phala ghruta was advised (5 gram) twice a day. The dietary interventions should be as gruel and vegetable soup along with regular diet.

Method of preparation of decoction

Fresh raw drugs (1 part each) are taken and washed off properly, and then all dirt and contamination are removed.

Decoction can be prepared from *Tulsi patra*, *Shirish twak*, *Guduchi kanda*, *Madhuka mool*, and *Nimba patra* by adding four times water and reducing it to one-fourth and is allowed to cool down. The pregnant woman is advised to drink

20ml ---0---20ml decoction (twice a day)

DISCUSSION:

The world is facing a panic situation nowadays in the form of covid-19 pandemic. Which came in our life like a nightmare. There is no evidence till date exact protocol for treatment which can be use for covid-19 infection. So the only way to control the situation is prevention and symptomatic treatment to cure of corona infection. WHO, ICMR, AYUSH guidelines are made for the prevention of corona virus infection. But no any extra care suggested by the any health organisations for pregnant ladies. Pregnant ladies should be considered as vulnerable. As pregnancy is a immune-compromised state. Here are trying to suggest some remedies as preventive measure. *Acharya Kashyapa* has stated that fever in a pregnant woman is the most troublesome disease as the foetus suffers due to the transfer of heat of fever from the mother to the foetus. This case demonstrated *Ayurvedic* management for pregnant woman with COVID-19 disease. The safety and efficacy were the initial concerns in considering the mentioned therapeutics. The intervention included oral medications, dietary intervention and lifestyle intervention. The initial treatment

on admission was administered as *vyadhi-viprita upkrama* (*jwaraghna* action of *Sanshamani Vati* and *Godanti bhasma*) and *Sukumara ghrita* was administered for its *Vata-nashana karma* and *rasayana* action. Efficacy of *Sanshamani Vati* in the treatment of moderate infection of COVID-19 is evident through the recent researches.

CONCLUSION

The diet and lifestyle which are described thousands of years ago in the classical texts of *Ayurveda* is totally beneficial and one can follow it for prevention of COVID-19 in pregnancy. The disease COVID-19 can be considered as the clinical congruence of *Sam-sannipataja jwara*. It comes under *Janapada dhamsa vikara* and can be grouped in *Bhutabhisanga Agantuga Vikara* (external cause of microbes). *Garbhini* should be treated circumspectly during this COVID-19 pandemic to prevent a deleterious effect. This article gives priority to the reduction of transmission of COVID-19 in pregnant women. In conclusion, the literature on the management of antenatal women in COVID times is extremely limited but rapidly growing and changing. The available guidelines too are updating with time. The latest guidelines at present were reviewed, and a summary of management guidelines and their interpretation in the Indian Scenario has been attempted by this article. History of MERS or SARS threatens of the possible high mortality rates of COVID, yet the age group of the antenatal women and the current COVID antenatal data till date reassures otherwise. Appropriate and timely management seem to

be the key, and all guidelines strive toward a safe motherhood and healthy offspring in the times of a global pandemic. *Garbhini paricharya* should be pursued meticulously as mentioned in ayurvedic classics. COVID-19 in pregnancy should be treated premediated regarding *Garbhini Jwara*.

Tulsi, Shirish, Guduchi, Yastimadhu and *Neem kwath* is effective in preventing and controlling the signs and symptoms of novel COVID-19 as all these drugs which are mentioned in *ayurvedic* texts acts as *Dahaprashama, Jantughna, Shvashhara, Kasahara, Krimihgna, Jwarahara*. No adverse effect or complications should be produced with the use of this treatment.

REFERENCE

1. WHO coronavirus disease (Covid-19) dashboard. Geneva: World Health Organization; 2020. Available online: <https://covid19.who.int/> (last cited: [15-09-2020]).
2. Coronavirus Disease (COVID-19)—events as they happen <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>. Accessed 23 May 2020
3. Al-Tawfiq JA. Middle East Respiratory Syndrome Coronavirus (MERS-CoV) and COVID-19 infection during pregnancy. *Travel Med Infect Dis* [Internet]. 2020; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7118624>. Accessed 26 May 2020

4. World Health Organization. [Online] [Cited: March 28, 2020.] <https://www.who.int/dg/speeches/detail/whodirector-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>.
5. Adhikari E.H., Moreno W., Zofkie A.C. Pregnancy Outcomes Among Women With and Without Severe Acute Respiratory Syndrome Coronavirus 2 Infection. *JAMA Netw Open*. 2020; 3(11) [PMC free article] [PubMed] [Google Scholar]
6. Premvati Tiwari, Ayurvedic Prasuti Tantra evam Stri Roga Vol-I, Chapter-6-Garbhini Vyadhi Evam Chikitsa. Varanasi: Chaukhambha Orientalia; 1998. p. 241.
7. Sharma Priyavrata, Dravyaguna Vigyan, Vol 5th: Chaukhambha Bharti Academy Publisher 2012; Tulsi- 513, Shirish- 773, Guduchi- 761, Yastimadhu- 253, Neem- 150.
8. Aacharya Vruddha Jivaka, Kashyapa Samhita, Khila Sthana, Antarvartniadhyaya -chapter 10 verse 4 , by P V Tewari, Reprint 2008 By Chokhambha Vishvabharti, Varanasi;p 553 e 558
9. Kashyapa Samhita, Khila Sthana, 10. Available from: <http://niimh.nic.in/ebooks/echarak>. [Last accessed on 2020 Jul 29].
10. Tiwari D, Sah AN, Pandey HK, Meena HS, Meena R, Ramaswamy RS, et al. A review on phytoconstituents of Ocimum (Tulsi). *International Journal of Ayurvedic Medicine* 2012
11. Tripathi B., editor. Ashtanga hridaya of Vagbhata, Chikitsa Sansthana; Chikitsa Sansthana. Choukshambha Sanskrit Pratishthan; Varanasi: 2011. p. 782. Chapter 13, Verse 41 – 47
12. Chuneekar KC, Pandey GS. "Guduchyadi Varga. Bhavprakash Nidhantu". Varanasi: Chaukhambha Bharati Academy; 2006. p. 269.
13. Acharya YT, editor. Rasamritam, 1st edition. Translated by Dr. Joshi D. Varanasi:Chaukamba Sanskrit Bhavan; 315.p.118
14. Sharangdhara Samhita, Madhyama Khanda, Kwath Kalpana, 2/1. Available from: <http://niimh.nic.in/ebooks/echarak>. [Last accessed on 2020 Jul 29].

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