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## Janapadadhwamsa and Covid-19—A Systematic Review and Practical Applicability of Trisutra Ayurveda in Samhita

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### ABSTRACT

COVID – 19 is an infectious disease drawing everyone's attention globally for public health concern. It is likely zoonotic in origin, and now its person to person spread has made it fatal. Extensive measures have been taken to control this pandemic. As treatment of COVID -19 modern medicine system, is working on trial and error basis but no specific line of treatment/vaccine has been found till date. Ayurveda is a science of life and its basic concepts were evolved during the Vedic period. These concepts were crystallized, refined and advanced further in Samhita's. The law of uniformity of nature was established by our Acharya's, which helped in applying the physical laws to the biological field. The entire nature was their laboratory, and their keen observation and divine vision worked as their instruments to arrive at scientific truths. Disease-free condition is the best sources of virtue, wealth, gratification and emancipation while diseases are destroyers of all these sources, welfare and life itself. Samhita's are the most popular texts of ancient essence, and very few are available in complete form. At present, Samhita's are the only representative work of ancient period providing rational guidance and authoritative support to Ayurveda physicians, research scholars and students. Studying the texts of these primary source material is essential for understanding the physical, mental and spiritual wellness of every individual of the universe. In Ayurveda, epidemics are described as Janapadadhwamsajvyadhi. So everyone is enthusiastically expecting Ayurveda for better results. Its hetu (causes), Lakshana (signs and symptoms) and chikitsa (probable treatment) have been discussed here which can be considered in future as the strategies to avoid such pandemics. These guidelines may act as preventive, protective and curative for the entire community in winning the fear of coronavirus disease.

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### INTRODUCTION

Coronavirus is the pathogen that targets the respiratory system in the human body. In Dec 2019, patients rushed to hospitals, and they were admitted with a diagnosis of pneumonia of unknown aetiology. While taking a clinical history of patients, it was noted that they linked to a wet animal wholesale food market in Wuhan at China (Ren *et al.*, 2020). Up to January cases increased, and in the last week of January, it spread to Thailand, Vietnam, Malaysia, Nepal, Srilanka etc. Now it has reached and scattered in every country and has become a global

health threat. Though China has not declared about medicines they used, some news has published the importance of traditional medicine for it. As it is speedily spreading in India and especially in Maharashtra state, it is now become necessary to find out solutions from our traditional medicine that is Ayurveda.

There are so many contradictories when we think about the new disease as per Ayurveda. The first objection is whether the newly evolved disease is described in compendia? In abstracts, it is mentioned that there is no need for knowing the name of the virus. For treating that disease, you must understand about Dosha, Dhatu, and Strotas; then you can address any disease (Sengupta and Sengupta, 2009a). So we have to define COVID-19 in term of Ayurveda for treatment purpose. The second objection is that – Does Ayurveda stands in epidemics? To our surprise, before thousands of years in Charak Samhita concept of ‘janapadadhwasavyadhi’ has been nicely elaborated. Not only hetu, but treatment has also been incorporated in it. Not only that in Sushrut Samhita, but different modes of spread of disease (oupasargikroga) has also been explained – gatrashparsha, shwas, sahabhojan, sahashayya, sahaasana, vastra, mala, lepaetc (Acharya, 2010a). Thus, abstracts give us keynotes about the diagnosis and treatment of epidemics also. The third main objection is - Can Ayurveda help in acute conditions? Ayurveda believes in the prevention of disease, but it doesn't mean that it will not work in acute conditions. Extensive research in different fields, especially Rasshastra, has made it possible to treat acute disease too. So here an attempt has been made to elaborate COVID – 19 in terms of Ayurveda how janapadadhwasavyadhi gives us some groundwork to act on for better treatment plan. This study does not say that one should omit Allopathic treatment and start Ayurveda treatment, but it reveals that both pathies have their limitations. With the help of each other, it will provide a better plan for public health which is the need of present time.

## REVIEW OF LITERATURE

### Review of corona disease / Covid-19

#### Causative agent

According to WHO, COVID – 19 is a B Cov of group 2B (Hui *et al.*, 2020). As per Phylogenetic analysis, COVID – 19 belongs to the genus beta-coronavirus that infects human, bats and wild animals (Hu *et al.*, 2019).

#### Transmission

Its transmission from one person to another person takes place basically via direct contact. It also occurs through droplets spread by coughing or sneezing by an infected individual.

#### Incubation period

It ranges from 6 to 15 days. It depends upon the age and immunity of the patient. The period from onset of symptoms to death ranges from 6 to 41 days with a median of 14 days.

#### Symptoms

COVID-19 shows following symptoms-Fever, cough, fatigue, sputum production, headache, hemoptysis, diarrhoea, dyspnea, and lymphopenia. CT scan shows pneumonia. There were abnormal features such as patchy necrosis, acute respiratory distress syndrome, severe cardiac injury and incidence of grand glass opacities. These unique clinical features distinguish it from the earlier bacteria-viral stage (Carlos *et al.*, 2020).

#### Therapeutics/ Treatment Options

Until now, specific antiviral drugs or vaccine against COVID-19 infection for potential therapy of humans is not available. All of the drug options come from experience treating SARS, MERS or some other new influenza virus previously. Active symptomatic support remains key to treatment Lu (2020). The only option is using broad-spectrum antiviral drugs and also HIV-protease inhibitors that could attenuate virus infection until the specific antiviral becomes available. Effectiveness of broad-spectrum antiviral-remdesivir and chloroquine is also reported in some vitro studies.

#### Directions to control disease spread

1. Washing hands frequently with an alcohol-based hand sanitizer/ rub or with soap and water is essential to control the spread of the disease.
2. Maintain physical distancing: Maintain at least 1 meter (3 feet) of physical distance between two persons, especially from anyone who is coughing or sneezing. It can control spread through the droplet.
3. Avoid touching eyes, nose and mouth. Contaminated, hands can transfer the virus to your eyes, nose or mouth.
4. Everyone must follow good respiratory hygiene as follows- Covering mouth and nose with bent elbow or tissue while coughing or sneezing. Then dispose of the used tissue immediately in covered dust bins.
5. If you have fever, cough and difficulty in breathing, seek medical care at earliest. Update yourself with the latest government policies and news through the media for protecting oneself.

## Review of Janapadadhwasavyadhi

### Definition

When any disease simultaneously affects large population irrespective of their Prakruti, Ahara, Bala, Vaya, etc., it is known as janapadadhwasavyadhi. It affects a large community at the same time by developing the same symptoms ([Sengupta and Sengupta, 2009c](#)).

### Causes

Causative agents of it are- Desha, Jala, Vayu and Kala. Each hetu is more vulnerable than the previous one ([Sengupta and Sengupta, 2009d](#)). The leading root cause behind these four is 'Adharma' ([Sengupta and Sengupta, 2009e](#)). Adharma is the effect of previous Asat karma which took place due to Pradhyaparadha. Due to adharma, administering bodies work out of control and hence the people. Because of disobeying the rules, adharma increases extensively and thus devata, satpurusha leave that place. Rutuvyapad occurs. It affects all Prithvi, Jala, vayu...etc. And ultimately oushadhi and anna which are nourished by them. All becomes deficient in their natural qualities. Hence they cannot treat the disease properly ([Sengupta and Sengupta, 2009f](#)).

In Sushrutsamhita description is as follows- Due to Abhishapa, Krodha, Adharma etc. Vayu becomes poisonous, and it destroys janapad of that desha where it goes. Some other hetu such as graha nakshatracharan, graha dwaraasamyakchinha and other spreading causes are mentioned in the text. ([Acharya, 2010b](#)).

### Lakshana

In Charaksamhita, it is mentioned that due to adharma sharir becomes deficient in qualities. Due to poor quality of food, it cannot nourish the body properly, and hence different diseases affect the body leading towards death ([Sengupta and Sengupta, 2009a](#)).

In Sushrut samhita shwas, Kasa, vaman, pratishyaya, shiro ruuka, and jvara are mentioned as symptoms of janapadadhwasavyadhi ([Acharya, 2010c](#)).

### Treatment

In both Charaksamhita and Sushrutsamhita primary line of treatment is same. It includes- mantra, oushadhi, mani, mangal, bali, upahar, homa, niyam, prayashchitta, upavas, swastyayan, pranipat in Charaksamhita ([Sengupta and Sengupta, 2009b](#)). The only hita upachara is effective for life. All hinyoga, atiyoga and mithyayoga should be avoided. In Sushrut samhita also it includes- sthanaparityag, Shanti karma, prayashchitta, mangal, Japa, homa, upahar, anjali, namaskar, tapa, niyam, daya, dana,

deeksha, abhyupagam ([Acharya, 2010c](#)).

## DISCUSSION

Now we will correlate COVID-19 and janapadadhwasavyadhi and describe COVID-19 based on Ayurveda. We will compare it on the following points- definition, causes, symptoms and treatment.

### Definition

A disease affecting many persons at the same time and spreading from person to person in a locality where the disease is not permanently prevalent is known as an epidemic disease. It is occurring at the level of region or community. It is a temporary prevalence of infection ([MedicineNet, 2020](#)). The pandemic disease is an epidemic that has spread over a large area, that is, it is prevalent throughout an entire country, continent or whole world.

Thus it shows pandemic disease spread irrespective of place, race, sex, age etc. Symptoms are the same and occur at the same time. This is similar to the description of janapadadhwasavyadhi mentioned in Charak Samhita.

### Causes

As per modern medicine, the causative agent of COVID-19 is B COV of group 2B. Its transmission is through direct contact or droplet infection through coughing or sneezing of an infected person. Means here one major cause of infection is air (Vayu). It is spreading due to not following rules of isolation, cleaning etc.

In Ayurveda, four major basic elements are given – desha, Jala, Vayu, and Kala. Dushitvayu has become the basic cause of spreading COVID-19 which is caused by adharma as a result of Pragyaparadha. It includes not following the rules by apta (here authority person), not following sadvrutta (social conduct), not following regulations related to such social hygiene etc.

### Symptoms

COVID-19 has symptoms such as fever, cold, cough, fatigue, sputum production, headache, hemoptysis, some may have dyspnea, diarrhoea, rhinorrhoea, sneezing and sore throat.

In Charak Samhita specific symptoms are not mentioned. But due to deficient qualities of Vayu, Kala, jara etc., immunity of body decreases and vyadhi like jvara which are described already become vulnerable in the weak body leading to death.

In Sushrut Samhita symptoms given are Kasa, shwas, vaman, pratishyaya, shiroruka and jvara. These symptoms are similar to COVID-19.

Again as it is due to dushitvayu affecting the main respiratory system, in Ayurveda, it can be correlated to the disease of pranavahastrotas, specially shwasavyadhi. In shwasavyadhi, it is mentioned that it is kaphavatatmakvyadhi originating from pitta sthana (amashaya). It causes Shoshan of rasa and other dhatu and hence disturbing working of the heart. It is dangerous as snake poisoning and hard to treat. If we think of the pathology of the corona, it is sannipatikavastha. First exaggerated Vata at pranavahasrotas causes udirana of Kapha dosha (excess mucus secretion/ infiltrates). Further dryness (ruksha) of vayu increases and makes Kapha devoid of Sneha, i.e. firstly styan and then solid. These solid infiltrates cause obstruction in pranavahastrotas, again due to excessive dryness of vayu elasticity of pranavahasrotas decreases. All this pathology ends in the collapse of alveoli, ground-glass opacities, dyspnoea and respiratory distress.

Thus, COVID-19 is a janapadadhwamsavyadhi. Primary factors of spreading disease are Vayu (contaminated with droplets) and Prithvi (places for phomites). It is vataKaphajvyadhi of pranavahasrotas originating from pitta sthana. The elasticity of pranavahasrotas has been lost, and hence its restoration is necessary for the treatment.

### **Treatment**

We already took a review that potent and specific treatment is not available at present. Broad-spectrum antivirals and some molecules like HCQ are some options adopted. At present, there is no specific treatment in modern medicine also, so they are emphasizing on prevention.

In Ayurveda adharma has been mentioned as a primary cause of janapadadhwamsavyadhi and treatment is explained accordingly. Satvavajaya chikitsa and daivavyapashrya chikitsa are mainly elaborated. The most crucial factor about chikitsa is, medicines which are useful for treatment must be collected before a loss of natural qualities of desha, Vayu, Kala, java etc. It is mentioned that when janapadadhwamsavyadhi takes place, medicines lose their qualities and their potency decreases and cannot be used for curative properties. The same thing is happening in the present scenario.

Now we will see how principles of treatment of janapadadhwamsavyadhi are useful at present.

### **Sthanaparityag**

At present person has to leave places due to outbreak of COVID-19. Isolation, quarantine is done currently as preventive measures are also a few types of sthanaparityag.

### **Shanti karma**

Shanti karma means indriyajaya. Control on mana and indriya. Mind control is important as we are aware that a large number of people are unable to stay at home. They couldn't control their behaviour and continue going outside in lockdown period. Asking for work from home, reduced working time, applying curfew, avoiding social gatherings are some of the examples of modern shantikarma.

### **Prayashchitta**

It is karma done for neutralizing the effects of praktan- that is, previous bad karma. It is not only limited to daivavyapashrya, but it should be followed for yuktivyapashrya also. E.g., In various Dharmasastras texts, a list of multiple types of Prāyaśchitta are described.

### **Abhiśasta (public confession)**

China government recently gave confession for hiding information about such outbreak of a new deadly virus is an excellent example of this abhiśasta.

### **Anutāpa (repentance)**

Giving information about the disease and methods of protection on every mobile by setting as caller tune can be said as aanutapa.

### **Prāṇāyāma (restraint of breath)**

Guiding people for strengthening and purifying the respiratory system through exercises similar to yoga can increase elasticity and immunity of the people.

### **Tapas**

Means giving klesha to body and mind. Doctors serving at corona clinics are avoiding visits at their family, and staying quarantined is also a type of tapas.

### **Homa**

It means lightening agnihotra or burning dhoopana drugs to disinfect the area. Spraying sanitizer or modern fogging or fumigation practices may be called as homa.

### **Japa**

Chanting of Vedic prayers verbally, audibly or mentally. Circulating wide publicity for awareness of diseases on all social media repeatedly can be said as a Japa.

### **Dāna**

Sharing gifts such as cow, horse, land, bread and butter, sesame seeds and food for economically backward people. Nowadays food distribution in concessional rates through the public distribution system, donation of food kits to needy people by different NGO and Govt.agencies, making a contribution towards PM relief funds by different peoples and

organizations to fight against COVID-19 are some of the good examples of Dana.

### **Upavāsa or Vratas**

Control over one's diet if possible or consumption of small quantity of satvika ahara as a self-reminder of penance, Avoiding or restricting public kitchens, hotels, barred food delivery by hotels or online food companies is also called as a vrata in this scenario.

### **Tirtha (pilgrimages)**

Bath in holy rivers or taking sanitizer bath or using sanitizers frequently to avoid the spread of the disease can be called as modern tirtha procedures said in dharmashastra (Kane, 1962).

### **Mangal, Japa, upachar**

These all are for increasing psychological strength. As in COVID-19 fear of death, stress due to lockdown, isolation, quarantine as well as economic issues and the mental state of the patient worsens. It accelerates the speed of pathology and journey towards death.

Not only for patients but persons in that region/community are also under high mental stress. So these options increase the power of the mind and positive thinking which a part of treatment.

### **Namaskara**

Means greetings, here it can be taken as a greeting without physical contact in social gatherings to avoid the spread of the disease.

### **Diksha**

It is also called as changing some traditional practices related to aahara or vihara, here we can say that avoiding mansahara or non-vegetarian diet can be a good Diksha for COVID-19.

### **Anjali**

Means divine offering or sacrifice, donating food to needy masses, supplies of daily needs in reasonable rates are also few types of Anjali

### **Homa**

Homa has both effects- one as described above for mental distress program, and another result is the purification of the environment, especially air. It depends upon drugs used in that procedure.

In compendia rakshoghna dravya are mentioned which have different actions on different microbes, bacteria etc.

Many types of research have been done on various dhoopana dravya and their role in the purification of the environment.

### **Niyam**

Niyam means rules which are given in Shastra, should be followed without fail. Dinacharya, ritucharya, sadvrutta, Aachara Rasayana should be followed on a strict basis. Though it is not the treatment of COVID-19, these rules act as immunity boosters. They will maintain health and will keep dosha, dhatu, mala in an equilibrium state. WHO also mentioned that severity of symptoms, a period of incubation etc. depends upon immunity. So boosting immunity also has a significant role in treatment. It will decrease the severity of symptoms and increase the success of treatment.

### **Daya, Dana**

In the present scenario, we have some social issues apart from treatment. They are social stigma and discrimination. Patients are afraid of being boycotted because of suffering by COVID-19 or similar minor illness. It may lead to hiding proper history or present disease which may become a problem to society in future. So we have a quality like- daya, i.e. seeing everyone with equality and affection. Due to lock down, isolation and other issues, there are different needs of people who are suffering. So society should take responsibility to provide food for nearby needy people.

### **Abhyupagam of guru, devata etc.**

It means following instructions given by them. They all are Apta. At present, our governing bodies, Health care system all are apta as they have studied the pattern of disease and hence following the instructions like lockdown, social distancing, washing hands etc.

Thus, these principles of treatment for janapadadhwamsavyadhi are very useful in treating COVID-19.

These are also the preventive measures: prevention of disease as well as prevention of spread. For treatment, chikitsa sutra of shwasa, as well as sannipatikjvara, should be followed.

### **CONCLUSION**

COVID-19 is Janapadadhwamsavyadhi with the involvement of pranavahasrotas specifically. It is sannipatikavastha with a predominance of Vata and Kapha dosha. The primary line of treatment mentioned for janapadadhwamsavyadhi is also useful for the prevention of the spread of disease as well as it can be treated with principles of therapy of shwasavyadhi. It is also concluded that in India, most of the management procedures described in Samhitas are followed by health authorities and government of India except rasayan,

homa/agnihotra/dhoopan. It is also concluded that Trisutra of Ayurveda that is Hetu sutra, Linga sutra and Oushad sutra of janpadadwanshavyadhi explained in Samhitas are found applicable to the current epidemic of COVID-19. Rasayan oushadhi after Shodhan chikitsa and Dhoopan Chikitsa externally for environment purification along with agnihotra can be added with modern preventive and management procedure followed by Government of India as there is no established cure found for COVID-19.

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