

## COVID-19 AND AYURVEDA

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**ABSTRACT**

*Ayurveda* is the “The Science of Life”. It is the oldest traditional system of medicine. *Ayurveda* lay emphasis on prevention and encourages the maintenance of health of an individual through balanced diet, lifestyle, positive attitude and the use of herbs. *Ayurveda* has the remedy or cure for those diseases also where ever other stream of medicine fails. **losZ jksx% vfi eUnkfXu ewya** –means that the root cause of all the diseases is *Mandagni*. *Agnivishmata* cause disturbances in the metabolism thus weaken the immune system of the body. As a result of this person gets prone to various infections. Now, in the present scenario Covid-19 is spreading like wildfire across the world. The first cases were seen in Wuhan, China in late December 2019 before spreading globally. Covid-19 outbreak was declared as a pandemic on 11 March 2020. In the present era, bad food habits, sedentary lifestyle, lack of exercise and over stress is the main cause of the spread and virulence this deadly disease. It is because of today’s lifestyle only that person’s immune system is so low that he gets easily infected by microorganisms. *Ayurveda* is ancient in origin but its concept like *Aupasargika Roga* (communicable diseases) and *Janpadodhavansa* (epidemics) still holds importance in the present era.

**KEYWORDS:** *Ayurveda*, *Mandagni*, *Agnivishmata*, *Covid-19*, pandemic, *Aupsargika Roga*, *Janpadodhavansa*.**INTRODUCTION**

Covid-19 or corona virus disease 2019 is an emerging viral infection that is a present global public health problem. It is caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2), previously known as 2019 novel corona virus (2019-nCoV), a strain of corona virus. The incubation period for COVID-19 is from 2 days to 2 weeks. A pooled analysis of 181 confirmed cases of COVID-19 outside Wuhan, China, found the mean incubation period to be 5.1 days and that 97.5% of individuals who developed symptoms did so within 11.5 days of infection.<sup>[1]</sup> Covid-19 virus is transmitted between people through respiratory droplets and contact routes. Droplet transmission occurs when a person is in close contact (within 1m) with someone who has respiratory symptoms and therefore at risk of having his/her mucosa (mouth/nose) or conjunctiva exposed to respiratory droplets. It can also spread by indirect contact with the surfaces in immediate environment or with objects used on or by the infected person.<sup>[2]</sup>

**History**

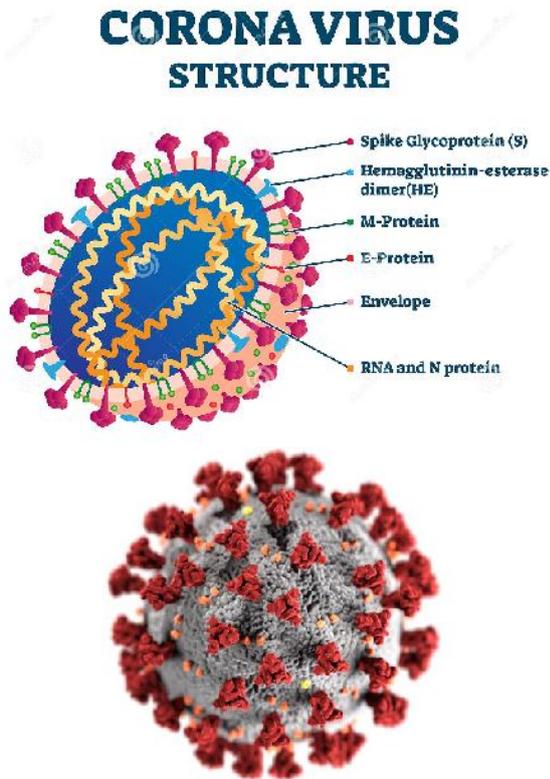
Corona viruses are a large family of viruses that can cause illnesses ranging widely in severity. The first

known illness caused by corona virus emerged with the 2003 Severe Acute Respiratory Syndrome (SARS) epidemic in China which infected 8,000 people, with a fatality rate of about 10%. A second outbreak of severe illness began in 2012 In Saudi Arabia with the Middle East Respiratory syndrome (MERS) which infected more than 1700 people, with a fatality rate of about 36%. On December 31 2019, Chinese authorities alerted the World Health Organization of an outbreak causing severe illness, which was subsequently named SARS-CoV-2.<sup>[3]</sup> As of 1 June 2020, about 6.2 million active cases with more than 374,336 deaths have been documented worldwide and the day by day cases are increasing. The United States of America has seen the highest number of these deaths.

**Structure**

Corona viruses belong to the family of Coronaviridae in the order Nidovirales. Corona viruses are large, enveloped, positive-stranded RNA viruses. They have largest genome among all RNA viruses. The genome is packed inside a helical capsid formed by the nucleocapsid protein and further surrounded by an envelope. Associated with the viral envelope are at least three structural proteins: The membrane protein and the

envelope protein are involved in virus assembly, whereas the spike protein mediates virus entry into host cells. Some corona viruses also encode an envelope-associated hemagglutinin-esterase protein. Among these structural proteins, the spike forms large protrusions from the virus surface, giving corona viruses the appearance of having crowns(hence their name; corona in Latin means crown). In addition to mediating virus entry, the spike is a critical determinant of viral host range and tissue tropism and a major inducer of host immune responses.<sup>[4]</sup>



Covid-19 typically presents with systemic and/or respiratory manifestations. Some individuals are asymptomatic and act as carriers. Some also experience mild GIT or cardiovascular symptoms, although there are much less common. It mainly spreads by touching of infected person or through sneezing by infected person which can infect a healthy person through aerosol/droplet infection. It also gets transmitted by touching or using infected persons things, having meals with him/her or sleeping with infected persons.

In *Ayurveda*, it may be defined as *Aupsargika Roga* (communicable disease) because of its rapid spreading and difficulty in control of this infection. *Charak* has dedicated a chapter on epidemic disorders named as *Janpadodhvamsa vimanam*. The *Jala*, *Vayu*, *Desha* and *Kala* are the four etiological factors whose contamination and vitiation makes epidemics to take place.<sup>[5]</sup>

The mode of spread of infectious diseases has been described clearly by *Sushruta* in reference to *Kushta*

(skin diseases), *Jwara* (pyrexia), *Shosha*(tuberculosis), *Netrabhishyanda* (conjunctivitis) etc spread from human to human due to :

- *Pransangat* (sexual route)
- *Gatra-samsparsat* (body contact)
- *Nihshwasat* (Droplet infection)
- *Saha bhojanat* (taking food with diseased person)
- *Vastra-malya-anulepanat* (using clothes, cosmetics and ornaments of patients).<sup>[6]</sup>

#### Signs and Symptoms of COVID-19 infected person

- Fever (90%)
- Dry cough (65%)
- Difficulty in breathing (30-40%)
- Weakness (40%)
- Cold (5%)
- Mucous production (30%)
- Headache & general body aches (15-20%)
- Anorexia (5-10%)
- Nausea, vomiting, diarrhea (5-10%)

In this death occurs due to respiratory distress or asphyxia.

The death rate is more in patients with weak immune response or co-morbid conditions like Diabetes, Hypertension and various pathological conditions in infected patients and in case of delay in treatment after infection.

#### Ayurvedic Measures for Covid-19

As we are aware that due to the outbreak of Covid-19 entire mankind across the globe is suffering. One's immune system (*Ojas*) plays a vital role in maintaining good health of an individual. As there is no medicine for COVID-19 as of now, the only way to prevent this deadly disease is to boost our immunity through different measures mentioned in various *Ayurvedic* classics. The following measures we can follow to prevent the disease.<sup>[7]</sup>

- 1) *Nidana Parivarjana*
- 2) *Shamana Chikitsa*
- 3) *Shodhana Chikitsa*
- 4) *Pranayama* and *Yoga*

#### 1) *Nidana Parivarjana*

According to *Ayurveda* our dietary and living habits plays an important role in preventing a disease. *Ojas* is the product of the digestive system. As long as we will keep our *Agni* (digestive fire) strong, no infections will ever over rule us. So we should follow *Dinacharya* - daily regimes and *Ritucharya*-seasonal regimes to maintain a healthy life. Here are few recommendations.

Drink warm water throughout the day. One should avoid sleeping during the daytime(except *Grisham Ritu*). Always have fresh meals prepared using minimum quantity of oil and use herbs like ginger, powder, cumin, turmeric, garlic, black pepper etc. Avoid drinking

refrigerated or ice cool water. Avoid regular uses of sweets, butter, cheese, dairy products, stale food and non vegetarian food.

**Fumigation (Dhoopana)**<sup>[7]</sup> can be done for environment purification with *Neem, Yava, Guggulu, Saraj Rasa, Agnimanthadi kshaya, Gandhak, Chandan* etc.

**Steam Inhalation** can be done with *Neelgiri* oil etc. *Kaval/Gandusha* (gargling with medicated oils) with coconut oil, sesame oil or *Ghee* should be done.

## 2) Shamana Chikitsa

The principle of management which can be followed in Covid-19 patients is boosting immunity, *Vata kapha nashan* and *Agni vardhan* treatment. In case a person comes in contact with the infected person, firstly he/she should be kept in isolation and during this period certain drugs should be given for boosting immunity like *Chayawanprasha avleha, Ashwagandha churana, Amlaki churana, Abhrak bhasma, decoction of tulsi, madhuyashti, dalchini and munnaka, Golden milk, Arogyavardhini Vati* etc.

In case of appearance of minor symptoms like fever, cough, sore throat, generalized body aches, some difficulty in breathing main focus should be to maintain health and digestion power, boost immunity along with symptomatic treatment of the person. The following can be the choice of drugs depending upon the symptomatology of the patient.<sup>[8]</sup>

## CHURANA

- *Giloy satva / Giloy juice*
- *Sitopladi churana*
- *Trifala churana*
- *Ashwagandha churana*
- *Tankan & Godanti bhasam*

## VATI

- *Lakshmilas rasa*
- *Tribhuvan kirti Rasa*
- *Sanshamni vati*
- *Shawaskuthar rasa*
- *Khadiradi vati*
- *Sanjeevani vati*
- *Mrityunjaya rasa*

## KASHAYA/ASAV/ARISHTA

- *Shadangpaaniye kashaya*
- *Kanakasav*
- *Ashwagandharishta*
- Decoction of *tulsi, Dalchini, Marich, Shunthi, Madhuyashti and munnaka*
- *Amritarishta*
- Golden milk

## AVLEHA

- *Vyagyaharitaki*
- *Chayawanprasha*

- *Vasavleha*
- *Brahama rasayana*

Above mentioned drugs can be given to the patient depending upon the symptomatology of the patient. These drugs are known to relieve stress, strengthen the immune system, promote healthy metabolism, relieve inflammation and have *Kaphashamak* and *Vatanuloman* properties.

## 3) Shodhan Chikitsa

*Nasya* is an important procedure for all the respiratory tract infections. In this there is trans nasal administration of medicinal preparations. It cleanses the nasal passage and sinuses, thereby relieves the symptoms.<sup>[7]</sup> Oil pulling therapy has also been recommended by the AYUSH ministry in which a person has to put one tablespoon of sesame oil or coconut oil in mouth and swish in the mouth for 2-3 minutes and spit it off followed by warm water rinse.<sup>[9]</sup>

## 4) Pranayam and yoga

When we get stressed out our internal environment is unbalanced and bacteria and viruses start attacking the body. *Pranayam and yoga* reduces stress hormones that compromise our immune system while also conditioning the lungs and respiratory tract, stimulating the lymphatic system to oust toxins from the body thereby maintaining balanced metabolism of the body. *Yoga* works on everything.<sup>[10]</sup> *Pranayam* like *Bhasrika, Kapalbhati* and *Anulom Vilom* whereas *Yoga asana* like *Shalabhsan, Ardha Matsyendrasana, Matsyasana, Uttasana, Viparita Karani, Dhanurasana, Vajrasana* etc can be performed which improves functions and strengthen cells, tissues, glands and organs and ultimately boost immunity and help us fight infections.

Moreover, if there is continuous difficulty in breathing then we should give ventilator support to the patient and maintain vitals regularly.

## CONCLUSION

The occurrence of any disease is the result of vitiation in *Dosha, Dhatu, Mala* and *Srotas*. Therefore to maintain good health, it is necessary to keep them in equilibrium by adopting healthy food habits, lifestyle, regular exercises and use of *Rasayana* and *yoga*. As there is no proven medicine for COVID-19 so the only way to escape this pandemic is to boost our immune system, wash our hands regularly with soap and water, use alcohol based hand rub, maintain social distancing, use mask whenever we go out of our homes and if someone suffers from the disease then there are various herbal formulations to control this fatal disease. *Ayurvedic* medicines have anti-viral, cleansing and anti-oxidant properties. They are excellent for balancing *Vata and Kapha*, which are prominent *dosha* in respiratory tract infections.<sup>[7]</sup>

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