

**MANAGEMENT OF COVID-19 THROUGH HOLISTIC AYURVEDA APPROACHES: A REVIEW****Prashansa Singh Baghel\***

Post Graduate Scholar, PG Department of Rasashastra and Bhaisajya Kalpana, Shubhdeep Ayurved Medical College and Hospital, Indore, Madhya Pradesh, India.

**\*Corresponding Author: Prashansa Singh Baghel**

Post Graduate Scholar, PG Department of Rasashastra and Bhaisajya Kalpana, Shubhdeep Ayurved Medical College and Hospital, Indore, Madhya Pradesh, India.

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**ABSTRACT**

Ayurveda has enough potential and possibilities to be employed both for prevention and treatment of COVID-19. Description of causation and management of epidemic diseases in Ayurveda are mentioned in *Janapadodhwamsa*. Classical Ayurveda preparations may play an excellent role in the management of this outbreak. Ayurveda has a unique method of approaching the newly detected disease. Rather than focusing on the microbial etiology, Ayurveda embraces a holistic technique for elaborating the details of the disease at hand. AYUSH system of medicine is performing a central role in improving the immune system of a person. Variety of herbal combinations have proven to perform the same function.

**KEYWORDS:** COVID-19, SARS-CoV-2, *Rasayan*, *Janapadodhwamsa*, Immunomodulators.**INTRODUCTION**

Corona virus is a new virus first identified in Wuhan, Hubei province, China. A pneumonia of unknown cause detected in Wuhan, China on 31st December 2019. On 30th January 2020 this outbreak was declared a public health emergency of international concern. WHO announced a name COVID-19 for it on 11th February 2020 and it has been declared as a pandemic on 11th March 2020 by WHO.<sup>[1]</sup> Coronaviruses are a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and severe acute respiratory syndrome (SARS). This is a new coronavirus named as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) that has not been previously identified in humans.<sup>[2]</sup>

This virus can easily affect or harm those individuals who have an infection, less immunity and especially who all have been aged more than sixty. To boost immunity among individuals, various methods are described in Ayurveda. People are mostly living a sedentary lifestyle which not only weakens their immune system but also make them more susceptible to infections. Hence Ayurveda is a science of life that is mainly focusing on strengthening persons by boosting their immune system through improving our lifestyle by using medicines, diets, meditation, and activities like Yoga.<sup>[3]</sup>

Ayurveda interventions become even more relevant by the fact that there is an elaborate description of causation and management of epidemic (*Janapadodhwamsa*) in Ayurveda.<sup>[4]</sup>

*Sushruta*, had well-explained about epidemic diseases. *Sushruta*, in *Sutrasthana* 6th chapter, narrated about 'vyapanna rutu' as a cause of epidemic diseases. Now a days, we are facing lots of changes in climate and 'rutuviparyay' means conditions opposite to that season. *Sushruta* says that this changes in season occur due to, 'Adharma'. 'Dharma' means, the right things, disciplines, rules, commitments, which we are supposed to follow, while leaving in a civil society. When we do not follow this, it is called as 'Adharma.' As per Ayurveda, this may be the reason for seasonal variation. Seasonal variation leads to vitiation of water and herbs, medicines, which leads to outbreak epidemics.<sup>[5]</sup>

**Stages and Duration of COVID-19**

COVID-19 is one of the major pathogens that primarily target the human respiratory system. The symptoms of COVID-19 infection will appear after an incubation period of 5 days. The period from the onset of COVID-19 symptoms to death ranged from 6 to 41 days with a median of 14 days. This period is directly depending on the age and immune status of the patient. This period was found shorter among the patients who were more than 70 years old, while longer in those under the age of 70.<sup>[1]</sup>

**Symptoms<sup>[6]</sup>**

The most common symptoms were seen at onset of COVID-19 illness are

- Fever
- Cough
- Shortness of breath or difficulty in breathing
- Chills
- Repeated shaking with chills
- Muscle pain
- Headache
- Sore throat
- Loss of taste or smell

These symptoms may become more severe in some people

- Trouble breathing
- Confusion or inability to arouse
- Persistent pain in the chest
- Bluish lips and/or face
- Excessive drowsiness

The most serious complication of COVID-19 is a type of pneumonia called the novel coronavirus-infected pneumonia (NCIP).

**Causes**

Person-to-person transmission occurs through direct contact or through droplets spread during coughing or sneezing from an infected individual. People may also pick up the virus from touching infected surfaces and then touching their eyes, nose, or mouth.<sup>[1]</sup>

**Preventive measures to control COVID-19**

The novel corona virus has taken a few months to sweep the globe, there are certain questions that are impossible to fathom as the disease rages. The virus is being controlled from spreading worldwide through numerous strategies. Therefore, noticing the virulence of this virus, several preventive measures have been taken at a global level to protect the human race. One of the indispensable measures that show evidence in controlling the spread of this pandemic is social distancing.<sup>[7]</sup> Second measure is lock downing the cities, area, colony in phased manner to stop the movement of people. Third measure is sanitizing the affected area, hands and frequently washing the hands. Fourth measure is wearing face mask to avoid direct contact with infected people.

**1. Effect of COVID-19**

This pandemic has affected world population either through direct effect by making person susceptible to physical illness causing morbidity and mortality or through indirect effect in the form of financial losses due to lockdown imposed for variable intervals in different countries of world.

**2. COVID-19 Management through ayurveda approaches**

Holistic Ayurveda meaning both preventive and cure techniques in the management of Covid-19, which

includes immunity boosting methods and medicines. Covid-19 management using Ayurveda methods can be broadly categorised in four parts.

**I. Using ayurvedic Drugs /Medicines**

*Rasayan sevana* is included in one of COVID-19 treatments. It produces Dhatu of optimum qualities and could act at the level of *Strotas* which will prove an effective tool in disease management. This can be called as immunomodulators, which can be defined as biological or synthetic substances that can stimulate or suppress or modulate any aspect of immune system including both adaptive and innate arms of the immune system. *Vyadhikshamatva* (Line of Defence from the Antigen) is depend upon the *Dhatuposhana* (Nourished Dhatu) and *Oja*. For the healthful longevity and mindfulness, it is necessary to work upon the *Rasa, Agni* and *Srotasa* level which is done by the *Rasayan* therapy. *Rasayan* may be used in two ways, first as a prophylactic medicine and second as a preventive measure in healthy people. *Rasayan* can be given as a single drug or as a compound drug.

**Single drug rasayan****(1) Gudhuchi (*Tinospora cordifolia*)<sup>[8]</sup>**

*Gudhuchi*, one of the best and hence considered to be the first in rest of five *Rasayana*, due to its versatility. It is also known as "*Amrita*". *Gudhuchi* is *Agnideepana*, *Balya*, *Jwaraghna* and *Ama nashaka* and useful for the upper respiratory tract infection, skin diseases, urinary diseases, dyspepsia, general debility, fever, bronchitis, gout etc. because of its *Tikta* and *Kashaya Rasa*. It is *Guru & Snigdha in Guna*, *Ushna Veerya* and *Madhura Vipaka*. And hence, responsible for pacifying the *Doshas* and resulting in balancing all the *Dhatus*. So, called as the *Rasayana*. It can be used in many ways like *Swarasa*, *Satwa*, *Kashaya* etc.

*Gudhuchi* + *Ghrta*: pacify the *Vata Dosha*

*Gudhuchi* + *Gudha*: pacify the *Pitta Dosha*

*Gudhuchi* + *Madhu*: pacify the *Kapha Dosha*

*Gudhuchi* helps in increasing the killing ability of macrophages and acts in infectious diseases through its *Amapachana*, *Agnideepana*, *Jwaraghna* and *Balya* properties. *Gudhuchi* is known to be a rich source of trace elements (Zinc and Copper) which act as antioxidants and protects cells from the damaging effects of oxygen radicals generated during immune activation.

**(2) Amalaki (*Emblica officinalis*)<sup>[8]</sup>**

*Amalaki* having the significant role and place in *Veda*, *Shiva purana*, *Padma purana*, *Ramayana*, *Charaka Samhita*, *Sushruta Samhita* etc. It is known as "*Amrita Phal*", and having the supreme place amongst anti-ageing drugs and considered as the one of the best *Dravya* for *Rasayana* Effect which is responsible for the *Sandhaniya Karma* (Improves Cell migration and Cell binding) and *Ayushya* (Prolonged Cell Life). It constitutes an anti-oxidant, Vitamin C, Tannin and Gallic Acid. *Amalaki* is the nutritious drug and termed as

“*Amalaki Vayasthaapanama Shreshthama*”. It has low molecular weight hydrolysable Tannins which act as the best anti-oxidant herb. A study suggested that *Amalaki* shown immunostimulant activity and moderate cytoprotective activity.

### (3) *Haridra (Curcuma longa)*<sup>[8]</sup>

The drug well documented in several Ayurvedic Literatures included *Samhita*, *Nighantu*, *Chikitsa Grantha* and *Rasa Grantha*. The study reveals that plant *Haridra* has special attributed with properties like *Daha hara* (alleviating burning sensation), *Ruja hara* (alleviating pain), *Varnya* (complexion promoter) and *Vishodhana* (cleansing of the body) etc. *Curcuma longa* (*Haridra*) commonly known as turmeric, is a common ingredient in spices and act as a health supplement. It is also used in various therapeutic applications such as blood purifying, wound healing, and inflammatory disorders. It has a wide role in the modulation of proliferation and cellular response of many immune cell types, i.e., T cells, B cells, macrophages, neutrophils, natural killer NK cells and dendritic cells. And hence, act as Immune Modulator. It also acts as anti-inflammatory, anti-oxidant and chemo-preventive due to the constituents like turmerones and sesquiterpenoids.

### (4) *Pushkarmool (Inula racemosa)*<sup>[9]</sup>

In all cases including mild, moderate and severe cases repeated steam inhalation is given. One drug of choice for treating all cases is *Pushkar Moola (Inula Racemosa)* with variation in doses as per severity of diseases. *Pushkar Moola* is time tested medicine for treating respiratory diseases. *Tikta, Katu Rasa* of *Pushkar Moola* acts on *Aama* which can be considered as toxin responsible for causing deterioration of *Agni* which in turn causes *Jwara*. *Aama-pachana* helps in curing *Jwara*. *Laghu, Teekshna Guna* (property) and *Ushna Virya* (potency) acts on *Kapha Dosha* which is usually involved in respiratory diseases. *Inula racemosa* exhibited analgesic, anti-inflammatory, cardio protective and antiallergic, bronchodilator and rejuvenating properties. Considering these properties of *Pushkar Moola* it can be effectively used in management of COVID 19.

### (5) *Nagara (Zingiber officinale)*<sup>[9]</sup>

*Nagara* is proven anti-inflammatory drug which acts on IL-1, IL-6 and TNF. Consumption of *Nagara Swarasa* (fresh juice) as per *Prakriti* and *Dosha* involvement may be beneficial in all symptomatic as well as asymptomatic patients. A few contraindications to this are *Pittaja prakruti* patients, patients taking blood thinners.

### (6) *Ashwagandha (Withania somnifera)*<sup>[10]</sup>

A potent Aphrodisiac and antistress in Indian system of Medicine. It produces adaptogenic activity and acts like a Hydrocortisone. It acts synergistically when it administered with anti-anxiolytic and anti-stressors.

## Compound formulations of *rasayan*<sup>[1]</sup>

### 1. *Sanshamani vati*

**Dosage:** 2 tabs of 250 mg, twice a day, a unique tablet of *Giloya (Tinospora cardifolia)* well known for its platlet forming properties, anti-inflammatory and immunomodulatory properties. ‘*Gudhuchi Ganapati*’ is mentioned by the name *Sanshamani vati* in *Jwaradhikara*.

### 2. AYUSH-64

**Dosage:** 2 capsules of 500mg, twice a day, each capsule of AYUSH 64 contains, *Caesalpinia crista* L. (*Kuberaksha*) Seed powder 200 mg, *Alstonia scholaris* R. Br. (*Saptaparna*) Bark Aqueous Extract 100 mg., *Picrorhiza kurroa* Royle ex. Benth (*Katuki*) Root Aqueous Extract 100 mg., *Swertia Chirata* Pexbex. Karst (*Kiratiktika*) Whole-plant Aqueous Extract 100 mg. The medicinal plants present in AYUSH-64, possess anti-inflammatory and immunomodulatory activity, it modulates the secretion of multiple cytokines. The all ingredients present in AYUSH-64 are *Tikta rasatmaka* which possess the *Agnideepak* and *Amapachak* (anti-inflammatory) properties. It acts as an *Amapachak*, as it converts the metabolic status from *samavastha* stage into *niramavastha* stage of an individual, thus it restores the normal metabolism and immune system. It may be used as add-on to standard care for early recovery and better outcome in fever and other viral infections.

### 3. *Agastya haritaki rasayan*

**Dosage:** 10 gm / 1 table Spoon, once a day, its action as *Rasayana* and *Vyadhihara* (Rejuvenating & Curative treatment), which is to be used in the diseases of *Pranavaha Strotas* like *kasa* (cough), *Shwas* (Bronchial asthma), *Pratishyay* (cold), *jwar* (fever). It gives strength to the *Pranavaha Strotas*; thus, recurrences of respiratory tract infections are reduced.

### 4. *Chyavanaprash*

10 gm / 1 table Spoon, once a day, on an empty stomach in the morning, it should be taken in such a quantity that it should not interfere the appetite. Diabetic person should take sugar free *Chyavanaprash*. Its main ingredient is *Amla* (Indian gooseberry), which is the richest source of vitamin C. In Ayurved it has been described as a *Rasayana*, beneficial in a cough, asthma and other respiratory ailments; it nourishes the weak *dhatu*, promotes vigour, vitality, immunity and it is having an anti-ageing property.

### 5. *Shirishavaleha*

Prepared from heartwood, significant immunomodulatory activity of as well as anti-inflammatory activity in albino rats.

### 6. *Haridradi ghrita*

It shows the Immunomodulatory activity (preferential stimulation of the components of cell-mediated immunity) in rats during a trial.

### 7. *Ayush kwath* (Herbal tea/Decoction)

Drink a special herbal tea made with *Tulsi* (Basil), *Sunthi* (Dry Ginger), *Dalchini* (Cinnamon), *Kalimirch* (Black pepper) and *Munakka* (Resins), suggested by experts of ministry of Ayush, GOI, for enhancing immunity. Dosage: 3gms to be boiled in 200ml of water for 5-7 min and when the volume reduced to 150 ml filtered this decoction and can be consumed once or twice a day. If needed jiggery (natural sugar/ guda) or fresh lemon juice can be added depend on taste of individual.

### 8. *Triphala churna*

*Triphala* is well known *Rasayan*, that is used for balancing the three *doshas* in body, it is used as a detoxifying agent of the colon and as a rejuvenator. *Triphala* preserves and promotes health, immunity and longevity. The individual plants of *Triphala* have been reported to be a rich source of Vitamin C, ellagic acid, gallic acid, chebulinic acid, bellericanin,  $\beta$ -sitosterol and flavanoids<sup>37</sup>. It possesses antioxidative and immunomodulatory activity.

### 9. *Shadangapaniya*

A preparation mentioned as *Shadangapaniya* is worth mentioning here as it is first preparation included in treatment regimen in all types of *Jwara*. Here one more myth is to be cleared in terms of advertisement of various *Kwatha* with the claim of preventing and treating this viral disease. As per text, various *Kashaya* should be used only after 6 or 7 days of *Jwara* and not from the first day onwards. Instead, there is mentioned clear contraindication of *Kashaya* in *TarunaJwara*.

## II. Using ayurvedic therapy<sup>[7]</sup>

Panchakarma is the natural detoxifying therapy comprising five purificatory measures. It has been scientifically proven that natural purificatory treatments can successfully eliminate toxins and infectious substances without damaging or causing any side effects. *Charaka* described that Panchakarma is the best treatment for *Janapadodhwamsa*.

1. In morning and evening sesame oil or coconut oil can be applied in the nostrils (*Pratimarsh Nasya*).
2. Oil Pulling Therapy can be done once or twice a day by taking one tablespoon sesame or coconut oil in mouth. Do not drink, swish in the mouth for two-three minutes and spit it off followed by warm water rinse.
3. *Shirodhara* by *Brahmi Tail*, *Mahanarayan Tail*.
4. *Abhyanga* (Massage): *Sarvanga Abhyanga* and *Patra Pinda Pottali Swedana*.

## III. Using diet (*Ahara*)<sup>[9]</sup>

As mentioned earlier, for healthy individuals following *Dinacharya* and *Rutucharya* along with few dietary precautions is sufficient in terms of prevention of infection.

### *Pathya ahara* (Dietary regimen)

- Soup of *Mudga* (Green lentil), *Kulatha* (Horse gram)

- *Patola* (Bitter gourd), *Karela* (Bitter gourd)
- *Amalaki* (*Emblica officinalis*), Dry fruits like Figs, Black grapes
- Spices - Dry ginger, Cloves, Curcuma etc.
- Consumption of lukewarm water

### *Apathaya ahara* (Dietary restrictions)

- Watermelon, Yoghurt, Sea food, Sweets, Refrigerated food.

## IV. Using lifestyle (*Vihara*)<sup>[9]</sup>

### *Pathya vihara*

- Adequate sleep is must in healthy as well as diseased state.
- Following hobbies to feel happy.
- *Yoga - Pranayama*

### *Apathaya vihara* (Restrictions)

- Sleeping during daytime
- Remaining awake till late night
- Stress, Anger etc. should be avoided.

## 3. CONCLUSION

Ayurveda has mentioned *Janapadodhwamsa* (Epidemic Condition), a number of invisible and very minute objects like *Krimi*, *Bhoota*, etc. that cause serious diseases, different types of *Aagantuja Vikara* (including unknown causes), and different kinds of *Aupasargika Vyadhi*. The conclusion drawn from above-mentioned interpretations, it is clear that COVID-19 is *Aupasargika*, and *Janapadodhwamsa Vyadhi* caused by a type of *Krimi or Bhoota* (SARS-CoV-2) which comes from outside of the body. The clinical symptoms of COVID-19 resemblances with *Abhishangaja Jwara*, *Vata-Kaphaja Jwara* and *Sannipataja Jwara* and management are proposed symptomatically.

*Rasayan Dravyas* has been used as the first line of defence for *Janapadodhwamsa*. The stress, unhealthy nutrition and continuous exposure to several toxins in present era led to compromised immune system. Therefore, immunomodulation should be of central importance in medical field to combat several infective, chronic, autoimmune & inflammatory diseases. Ayurveda *Rasayan* may help in boosting of our immunity and thereby promoting the health of individual or public, which is the ultimate requirement in prevention of COVID-19. '*Swasthvritta*' explains the way to remain healthy. To educate people about *Swasthvritta* measures, advice to follow, daily regimen, seasonal regimen, exercise, food and behaviour habit, *yoga*, *pranayama*, *yoga* purification method, good morals, will play major role to prevent epidemic diseases. Seasonal *panchakarma* also play major role to prevent epidemic diseases.

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**REFERENCES**

1. Singh N, Sengar AS. Ayurveda Rasayan in prevention and health promotion of COVID-19. *J Ayu Herb Med*, 2020; 6(3): 177-181.
2. Quang-Ung L, Horng-Liang L. Whether Herbal Medicines Play an Important Role in the COVID-19 Therapeutics and Boosting Immune as One of the Preventive Solutions: A Science Opinion. *J Ayu Herb Med*, 2020; 6(1): 1-3.
3. Renu Sharma, Mahesh Kumar Sharma, Gyan Prakash Sharma, Monika Rathore. A Review of the Role of Essential Ayurvedic Management in Covid Pandemics. *International Journal of Ayurveda and Pharma Research*, 2022; 10(5): 95-97.
4. Rastogi S, Pandey DN, Singh RH. COVID-19 pandemic: A pragmatic plan for ayurveda intervention. *J Ayurveda Integr Med*, 2022; 13(1).
5. Shisode N. To study the Ayurveda perspective of Covid 19. *J Prev Med Holistic Health*, 2020; 6(2): 62-65.
6. Kumar S. Ayurveda interpretation, diagnostic, and probable management of COVID-19 pandemic. *J Indian Sys Medicine*, 2020; 8: 91-101.
7. Tanveer T. Immunity Boosting measures during COVID- 19. *J Ayu Herb Med*, 2020; 6(2): 40-42.
8. Chauhan VP, Dutt B, Vyas M, Gupta SK. Effect of immune-modulators (Rasayana Dravya) in Janapadodhwansa WSR to COVID-19. *J Ayu Herb Med*, 2020; 6(1): 26-29.
9. Harishbhai KD, Kumar PH. A conceptual study on management of COVID 19 through Ayurveda- A brief review. *J Ayu Herb Med*, 2020; 6(3): 182-184.
10. Hetalben A, Shukla A. Ayurveda Approach to Combat Epidemic Diseases. *J Ayu Herb Med*, 2020; 6(3): 185-188.