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Role of Ayurveda in the Management of COVID-19: A Review

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ABSTRACT

SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) is the causative organism of COVID-19 (Coronavirus disease 2019). It is a highly contagious disease. It is mainly characterised by fever, cough, and breathing difficulty. Most of the infected people do not need any special treatment and recover easily from it. Different types of testing methods are there to diagnose this disease. RT-PCR (reverse transcription polymerase chain reaction) is the standard diagnosis method for this disease. It is mainly done from a nasopharyngeal swab. At this time no any specific treatment is there for COVID-19. Presently, treatments and vaccines are under study. In Ayurveda, epidemics/pandemics are discussed under the headings of *Janapadodhwamsa* (as per Acharya Caraka) and *Maraka* (as per Acharya Sushruta). Acharya Sushruta has described the mode of transmission of *Samsargaja* or *Aupasargika roga* (communicable/contagious disease). COVID-19 can be correlated with *Bhutabhisangaja jwara*. It can also be correlated with *Vata-shleshmaja jwara* due to similarity in clinical features. In this article Ayurvedic managements of COVID-19 have discussed in details. It includes line of treatment, general measures, dietary measures and specific measures.

Key Words: *Ayurveda, COVID-19, Janapadodhwamsa, Samsargaja roga, Aupasargika roga*

INTRODUCTION

Nowadays all over the world facing a great misery due to COVID-19 pandemic. Outbreak of this disease not only affect the physical health of people but also affect the mental and social health badly. Worldwide economy is also affected badly due to this pandemic. This disease is started in Wuhan, China in early December 2019. COVID-19 is declared as PHEIC (Public Health Emergency of International Concern) by WHO on 31st January 2020. It was declared as pandemic on 11th March 2020¹. Globally its total cases were 65,870,030 including 1,523,583 deaths (as on 6th

December 2020), reported to WHO². In India its total cases were 96, 44, 222 including 1,40,182 deaths (as on 6th December 2020)³.

COVID-19 (Coronavirus disease 2019) is occurred by SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2). It is a highly contagious disease. It spreads from infected individual to healthy one by close contact. It is mainly transmitted via respiratory route. It spreads by the infected respiratory droplets that are produced when an infected individual sneezes, coughs, talks or sings. It may also transmit through fomites (contaminated surfaces)⁴.



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In Ayurveda, epidemics/pandemics are discussed under the headings of *Janapadodhwamsa* (as per Acharya Caraka) ⁵ and *Maraka* (as per Acharya Sushruta) ⁶. Acharya Caraka has mentioned four factors responsible for *Janapadodhwamsa*. These four factors are *Vayu* (air), *Udaka* (water), *Desha* (land), and *Kala* (seasons). When these factors are vitiated, they can cause the destruction of countries by epidemic/pandemic diseases ⁷. In Ayurveda, there is description of *Agantuja vyadhi* which is caused by external factors like *bhuta* (micro-organism), *visha* (poisonous substance), *vayu* (wind), *agni* (fire) and *prahara* (external trauma) etc ⁸. According to Acharya Cakrapani, *Bhuta* means *Savisha krimi* ⁹ which is transmitted through air. So, it can be said that COVID-19 is an *Agantuja vyadhi*.

Samsargaja or *Aupasargika roga* (communicable/contagious disease) is produced by close contact or proximity with diseased person ¹⁰. Hence, COVID-19 can be said as *Samsargaja/Aupasargika roga*. Acharya Sushruta has described the mode of transmission of *Aupasargika roga* which are *Prasanga* (intimate relationship), *Gatra samsparsha* (direct contact), *Nishwasa* (inhaling the expired air of patient), *Sahabhajana* (eating together), *Sahasayyasana* (sleeping and sitting together) and *Vastra malya anulepanat* (wearing dress, garlands and unguents used by the patient) ¹¹.

Ayurveda (the science of life) has two primary objectives – *Swasthasya swastha rakshanam* (to maintain the health of healthy individual) and *Aturasya vikara prashamanam* (to cure the disease

of a patient) ¹². So, it can be said that Ayurveda has described both preventive as well as curative aspects of disease. In this article preventive and curative measures of COVID-19 have discussed.

AIMS AND OBJECTIVES

1. To discuss about COVID-19 and its Ayurvedic correlation.
2. To evaluate the role of Ayurveda in the management of COVID-19.

MATERIALS AND METHODS

As the present study is a review article, different Ayurvedic texts, published research papers and available materials on internet have been reviewed for this article.

COVID-19 and its Ayurvedic correlation –

SARS-CoV-2 is a newly identified strain of corona viruses (CoV) that causes COVID-19 ¹³. COVID-19 has an incubation period of 1-14 days and the mean incubation period of 4-5 days ⁴.

Its most common symptoms are fever, cough, and tiredness. Some patients may also develop aches and pains, running nose, nasal congestion, sore throat, loss of smell and taste, and diarrhoea. Usually these symptoms are mild. In spite of being infected some people are asymptomatic. Most of the infected people do not need any special treatment and recover easily from it. Around 1 out of every 6 infected people may develop serious illness and suffers from breathing difficulty. Older people and patients with underlying medical conditions like cardiac problems, high blood



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pressure, chronic respiratory disease and diabetes are at high risk. Patients with symptoms like fever, cough and breathing difficulty need medical attention¹⁴. COVID-19 can initially be diagnosed on the basis of clinical features then it is confirmed by RT-PCR (reverse transcription polymerase chain reaction) test. CT scan of chest may also be helpful for its diagnosis in persons having a high risk of infection⁴.

At this time no any specific treatment is there for COVID-19. Presently, treatments and vaccines are under study. Example of therapies used for this illness includes.

- Antiviral or retroviral medications.
- Respiratory support like mechanical ventilation.
- Steroids which help to reduce lung swelling.
- Blood plasma transfusions¹⁵.

It is difficult to correlate COVID-19 exactly with diseases mentioned in Ayurvedic texts. Although it can be correlated in many ways. According to Ayurveda, COVID-19 can be considered as *Agantuja vyadhi* because it occurs due to invasion of *bhuta* (virus). If we come in context to *Agantuja jwara*, it can be correlated with *Abhisangaja jwara* (more specifically *Bhutabhisangaja jwara*). It can also be correlated with *Vata-shleshmaja jwara* due to similarity in clinical features. *Vata-shleshmaja jwara* is characterised by *Sheeta* (feeling of cold), *Gaurava* (heaviness), *Tandra* (drowsiness), *Staimitya* (timidity), *Parva ruk* (pain in joints), *Shiro graha* (headache), *Pratishyay* (coryza), *Kasa* (cough), *Sweda apravartanam* (absence of

sweating) and *Santapo madhya vegascha* (moderate rise in temperature)¹⁶.

Ayurvedic management of COVID-19

I. Line of treatment for epidemic/pandemic diseases^{17,18} -

1. *Sthana parityaga* (people should resort to change of place of living).
2. *Karma panchavidham* – For their cure five elimination therapies (viz. *Vamana*, *Virechana*, *Niruha basti*, *Anuvasana basti* and *Nasya*) are the best.
3. *Rasayanam vidhivat cha upayogah* (proper administration of Rejuvenation therapy).
4. Following *Sadvritta* – Truthfulness, benevolence, charity, offerings, worship of the gods, observance of noble's conduct, calmness, self protection, search for things as are good for the self, resides in healthy places, observance of celibacy and company of those who are observing celibacy, discourse of religious scriptures, narratives of self-controlled great sages and constant company with religious, *sattvika* and learned persons.

II. Line of treatment for *Krimi roga*¹⁹ -

COVID-19 occurs due to invasion of *bhuta* (virus). According to Acharya Cakrapani, *bhuta* means *Savisha krimi*. So, line of treatment for *Krimi roga* may also be administered here which are as follows.

1. *Apakarshana* – It is of two types – *Hasta/yantra apakarshana* (manual extraction) and *Bheshaja apakarshana* (therapeutic extraction). Here, *Hasta/yantra apakarshana* cannot be used as we are unable to extract the virus



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manually. But *Bheshaja apakarshana* can be applied by the administration of appropriate therapies which are of four types – *Shirovirechana* (errhines), *Vamana* (emesis), *Virechana* (purgation) and *Asthapana basti*. There will be decreased in viral load by administration of these therapies.

2. *Prakriti vighata* – This principle helps in breaking the pathogenesis of ongoing disease. For this purpose *Krimighna dravyas* are used which inhibit the growth of *krimi*.

3. *Nidana parivarjana* – Avoidance of etioloogical factors by following preventive measures.

III. Management protocol of COVID-19 as per Ministry of AYUSH²⁰ –

(a). General measures :

1. Follow social distancing, wear face mask and maintain respiratory and hand hygiene.
2. For gargling – use warm water mixed with salt and a pinch of turmeric powder. Water boiled

with *Yastimadhu* or *Triphala* can also be used for this purpose.

3. For nasal instillation – use *Anu taila* or *Shadbindu taila* or sesame oil or coconut oil or cow's ghee, one or two times in a day, specifically before going outside and after returning to home.
4. Take steam inhalation with *Pudina* or *Ajwain* or *Eucalyptus* oil, once daily.
5. Take proper sleep daily for 6-8 hrs.
6. Do physical exercises moderately.

(b). Dietary measures:

1. Drink warm water or water boiled with *Ardra* or *Dhanyaka* or *Tulsi* or *Jeeraka*.
2. Take balanced diet which should be fresh and warm.
3. Golden milk (1/2 tea spoon of turmeric powder + 150 ml of hot milk) should be taken once at night. Avoid in the condition of indigestion.
4. *Ayush kadha* or *kwatha* should be taken once a day.

(c). Specific Measures : (Described in Table 1)

Table 1: Specific Measures

Clinical severity	Name of the medicines*	Dosage and anupana
	Ashwagandhaurna	1-3 gm, two times in a day with lukewarm water for 2-4 weeks.
Prophylactic care (for primary contacts and high risk group)	Guduchiurna or Samshamani vati or Guduchi ghana vati	1-3 gm curna or 250-500 mg vati, two times in a day with lukewarm water for 2-4 weeks.
	Chyawanaprasha	10g with warm milk / water once a day
	Guduchiurna or Samshamani vati or Guduchi ghana vati	1-3 gm curna or 250-500 mg vati, two times in a day with lukewarm water for 2-4 weeks.
Asymptomatic COVID-19 Positive	Aqueous extracts of Guduchi and Pippali	375 mg, two times in a daily with lukewarm water for 2 weeks.
	AYUSH64	500mg, two times in a day with lukewarm water for 2 weeks.
Mild COVID-19 Positive	Aqueous extracts of Guduchi and Pippali	375 mg, two times in a daily with lukewarm water for 2 weeks.
	AYUSH64	500mg, two times in a day with lukewarm water for 2 weeks.
Post COVID	Ashwagandhaurna	1-3 gm, two times in a day with lukewarm water for 2-4 weeks.
	Chyawanaprasha	10g with warm milk / water once a day



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Rsasyanaurna (contains Guduchi, 3 gm, two times in a day with madhu for 4 weeks. Gokshura and Amalaki in equal quantity)

* Along with above mentioned medicines; general and dietary measures should also be followed

DISCUSSION

In this article Ayurvedic managements of COVID-19 have been discussed. It includes line of treatment, general measures, dietary measures and specific measures which are mentioned above. For the treatment of this disease, both Shodhana and

Shamana chikitsa play important role.

For Shodhana chikitsa five purificatory therapies like Vamana. Virechana. Niruha basti, Anuvasana basti and Nasya can be administered. For Shamana chikitsa different Shamana aushadhis are used which are as follows. (Mentioned in Table 2)

Table 2: List of Shamana aushadhis

Sr. no.	Name of medicine	Ingredients	Properties/Actions
1.	Ayush kwatha	Tulsi, Dalchini, Sunthi, Maricha.	It has anti-oxidant, anti-microbial and anti-inflammatory properties. It helps to enhance immunity and relieves symptoms of infection.
2.	Golden milk	Haldi, Milk	It is anti-inflammatory, anti-microbial, anti-allergic and immunity booster.
3.	Ashwagandhaurna	Ashwagandha	It has anti-oxidant, adaptogenic, immuno-modulatory, anti-depressant and anti-inflammatory etc. properties.
4.	Guduchi Ghana vati	Guduchi	It is <i>tridosha shamaka</i> . It has anti-microbial, immunomodulatory, analgesic, anti-pyretic, and anti-inflammatory properties.
5.	Chyawanaprasha ²¹	Amalaki, Dasamula, Bala, Mashaparni, Mudgaparni, Pippali, Shringi, Draksha, Pushkara, Aguru, Abhaya, Shati, Musta, Punarnava, Ela, Chandan, Vidari etc.	It is a good rejuvenator. It is very much useful in curing bronchitis and asthma. It promotes intellect, memory, lusture, immunity to disease, longevity, strength of sense organs etc.
6.	Pippaliurna	Pippali	It is <i>Kapha-vata shamaka</i> . It is good digestive stimulant and rejuvenator. It promotes immunity, strength and intellect. It is useful in curing cough, respiratory distress and fever.
7.	AYUSH64 ²²	Saptaparna, Katuki, Chirayata, Kuberaksha	It is an Ayurvedic anti-malarial drug. It has anti-pyretic and anti-inflammatory properties. It enhances immunity and helps to fight against infections.
8.	Rasayanaurna	Guduchi, Gokshura, Amalaki	It acts as rejuvenator, anti-stress and adaptogen. It promotes longevity and immunity against disease.

CONCLUSION

COVID-19 is an ongoing health crisis which is being faced by all over the world. Today the whole

world is waiting for effective treatment protocol for this disease. Ayurveda may help to fulfill this need. There is elaborative description of



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epidemic/pandemic along with its treatment in Ayurvedic texts. In this article line of treatment, general measures, dietary measures and specific measures of COVID-19 have discussed. Above mentioned Ayurvedic managements of COVID-19 will show good effects if they are properly administered.



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