

# Highlights of Traditional Ayurveda Medicine for Covid-19 in India

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## ABSTRACT

**Introduction:** Novel corona virus or the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) a new public health crisis spreading continuously. The virus originating in bats and was transmitted to humans through yet unknown intermediary animals in Wuhan, china in December 2019. The disease is transmitted by inhalation or contact with infected droplets and the incubation period ranges from 2 to 14 days. Traditional Indian Medicines has lot to offer in the management of COVID-19. It was reported that traditional remedies may alleviate the symptoms of COVID-19. The Approach of Ayurveda on strengthening host defence may be useful as effective, safer, accessible and affordable prophylaxis of COVID-19.

**Objective:** The objective of this study to review protocol of Ayurveda and provide information for prevention and treatment of COVID-19.

**Methods:** The national guideline summarised which provide the best management for COVID-19. We extracted the case definition and clinical classifications of COVID-19 in along with relevant treatment.

**Results:** We present the most recent case definition, clinical classifications, and relevant treatments of COVID-19 in accordance with the recommendations in the Indian guidelines. COVID-19 has been categorized in four specific situation based on the severity of clinical condition. Several Ayurveda formulation are recommended for COVID-19 cases according to their clinical classification.

**Conclusion:** To control the COVID-19 outbreak, countries must ensure the adherence of their citizens to local public health measures. Medical professionals should diagnose and treat patients according to up-to-date guidelines. This review provide preventive strategy by increasing the immunity of the body to fight covid-19. However till today social distancing is considered as most effective way to stop the spread of COVID-19.

**Keywords:** COVID-19; Respiratory Syndrome; Ayurveda formulation; Clinical classifications

## 1. INTRODUCTION

The World Health Organization declared the coronavirus disease (COVID-19) as a global pandemic on 11 March 2020 [1]. An occurrence of pneumonia in December 2019 outbreak in Wuhan, China, has now been determined to be caused by a novel coronavirus [2]. It is termed as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) [3, 4]. The disease has spread across the world with more than one hundred countries reporting confirmed cases without effective control measures. Around the world 212 countries and territories affected by the virus reported with more than 4.2 million cases and more than 285, 294 deaths as of May 11, 2020. India has reported 67,152 confirmed cases including 44,029 active cases and 2,206 deaths. Despite worldwide efforts to contain it, the pandemic is ongoing to spread for want of a clinically-proven prophylaxis and therapeutic strategy [5].

Consequently, it is necessary that scientific community must draw on diverse knowledge systems available globally. Although the fact that no system of medicine has any evidence-based treatment for COVID-19 as yet, clinical interventions are being done worldwide. Similar strategy is required to be implemented by Ayurveda system of medicine. India is known for its traditional medicinal systems—Ayurveda, Siddha, and Unani. Medical systems are mentioned even in the ancient Vedas and other scriptures [6]. Ayurveda is the world's oldest medical system that can manage any disease without side effects. Ayurveda is equipped with varieties of treatment modalities to handle with any type of deadly diseases. However, a major drawback is a lack of an adequate scientific basis. To overcome this problem, AYUSH has started encouraging research in several areas to improve the system effectively [7]. Ayurveda interventions become even more relevant by the fact that there is an elaborate description of causation and management of epidemic in Ayurveda [8].

## 2. METHODS

We extracted the case definition and clinical classifications of COVID-19 in India along with relevant Indian Traditional Medicine treatments cited in the Revised Guidelines on Clinical Management of COVID – 19 by Government of India. Since the guideline is an administrative document issued by The Ministry of Health & Family Welfare, Directorate General of Health Services (EMR Division) Government of India.

## 3. RESULTS

### 3.1 Case definition & classification in India

#### 3.1.1 Suspected COVID-19 case

To be classified as a suspected case in India, the patient should fulfil one of the following epidemiological risks criteria and two of the following clinical features

- (1) All symptomatic individuals who have undertaken international travel in the last 14 days;
- (2) All symptomatic contacts of laboratory confirmed cases;
- (3) All symptomatic healthcare personnel (HCP);
- (4) All hospitalized patients with severe acute respiratory illness (SARI) (fever AND cough and/or shortness of breath);
- (5) Asymptomatic direct and high risk contacts of a confirmed case (should be tested once between day 5 and day 14 after contact).

Symptomatic refers to fever/cough/shortness of breath.

Direct and high-risk contacts include those who live in the same household with a confirmed case and HCP who examined a confirmed case

### 3.1.2. Confirmed COVID-19 case

To be classified as a confirmed case in India, the suspected case should fulfil one of the following pathological or serological criteria:

A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms

- (1) Test positive for SARS-CoV-2 nucleic acid in real-time rRT-PCR;
- (2) Viral genome sequencing reveals a high similarity to SARS-CoV-2;
- (3) Test positive for serum SARS-CoV-2-specific IgM and IgG, serum SARS-CoV-2-specific IgG seroconversion, or a fourfold or greater rise in SARS-CoV-2-specific IgG titre between acute- and convalescent- phase sera.

### 3.2. AYUSH Classification: Ayurveda Intervention

Research Council under the ministry of AYUSH, Government of India have also issued advisory based on Indian traditional medicine practices[9]. Therefore it is necessary to review of ancient classics of Ayurveda for prevention and treatment of COVID-19. For the purpose of Ayurveda interventions during COVID-19 pandemic, people can be segregated into four distinct categories[10].

#### 3.2.1. Unexposed asymptomatic group

This group will include persons who currently do not have any related symptom nor have any associated risk factor and co-morbidities. These apparently healthy people may be the most suitable for building of immunity so that infection-related pathogenesis can be countered to keep them healthy[11]. Common health keeping approaches of Ayurveda including healthy diet, healthy life-style, adequate sleep, physical activity, good conduct, care for retainable and non-retainable urges, and avoidance of disease causing factors (excessive cold and exposure to pollutants)[12]. In addition, Chyavanprasha, Brahma Rasayana, AmritBhallataka,[13, 14] Sanjeevani vati, Swarnaprashan. garlic (*Allium sativum*) peel, turmeric (*Curcuma longa*) powder, Carom or Ajwain (*Trachyspermum ammi*) seeds and Loban (resin of *Styrax benzoin* and *Boswellia* species) may also be a useful[15].

#### 3.2.2. Exposed asymptomatic (Quarantined)

This group comprises of people who are without apparent symptoms, but at risk due to contact history. They need to be quarantined *carefully*. Specific prophylaxis for this group may include *Sanjeevani vati* [16] and *Chitrakadi vati* and combination of *Guduchi* (*Tinospora cordifolia*), *Shunthi* (*Zingiber officinale*) and *Haridra* (*Curcuma longa*) [17].

This group may also be provided with decoction of a combination of Ayurvedic herbs including *Tinospora cordifolia*, *Zingiber officinale*, *Curcuma longa*, *Ocimum sanctum*, *Glycyrrhiza glabra*, *Adhatoda vasica*, *Andrographis paniculata*, *Swertia chirata*, *Moringa oleifera*, Triphala and Trikatu.[18-21].

#### 3.2.3. With mild COVID-19 symptoms

This category relates to people found positive to SARS-CoV-2 and are having mild URTI symptoms. They are required to be carefully isolated and monitored for any progression of

the disease, along with giving adequate therapy to arrest the symptoms and balancing the vitiated *doshas* to control disease progression.

Formulations like *Lakshmi Vilas Rasa* [20], *Pippali rasayana* [22], *Sanjeevani vati* [16], *Chitrakadi vati*, *Gojihvaadi Kashaya*, *Vyaghrih aritaki*, *Kantakaari Avaleha*, *Dashamul kwath*, *Sitopaladi* [23], *Talishadi*, and *Yashti madhu* may be the most suitable drugs to be used at this stage in an integrative model.

### 3.2.4. With moderate to severe COVID-19 symptoms

This category may be the population where the moderate to severe symptoms are already present and the patients also belong to high risk groups. These patients require tertiary care from the beginning itself but can also be co-prescribed with Ayurveda medicines in order to reduce the impact of the pathology and to buy more time to have intensive management [24].

Recommended formulations here may include *Pippali rasayana* [22], *Laghu Vasant Malati*, *Sanjeevani vati*, *Tribhuvankeerti rasa* [25], *Brihata Vata Chintamni rasa*, *Mrityunjaya rasa*, and *Siddhamakardhva rasa* [26].

### 3.3. Initiatives by AYUSH Ministry

The AYUSH Ministry in collaboration with the health Ministry launched the clinical trials of Ayurvedic medicines for novel coronavirus infection. The scientific studies on Ayurveda interventions as preventive prophylaxis and as an add-on to standard care to COVID-19 are joint initiative of AYUSH Ministry, Health Ministry and Council of Scientific AND Industrial Research (CSIR) with technical support of Indian Council of Medical Research.

Ayurvedic medicines such as Ashwagandha, Yashtimadhu (Mulethi), Guduchi + Pippali (Giloy), and polyherbal formulations are being used in the clinical trials involving health workers and those working in COVID-19 high risk areas. The AYUSH Ministry cleared that outcome of the trials would certainly pave a new horizon in understanding the preventive potential of AYUSH interventions during pandemic like COVID-19 through scientific evidence [27].

## 4. CONCLUSION

The COVID-19 pandemic characterised by World Health Organization is spread across the globe at an alarming rate. Elderly and immune-compromised patients are at the greatest risk of fatality. There are no approved medication and vaccine has been developed for this infection, prevention is crucial so some supporting therapy like Ayurveda preparations work. AYUSH Ministry also rolled out some Ayurveda recommendations to boost immunity using simple home measures and stop the spread of viral disease. All herbs discussed above have proven potent medicinal benefits. Detailed guidelines for critical care management for COVID-19 have been published by WHO.

We hope that future evaluation of the outcomes of implementing Traditional Medicine recommendations will strengthen the evidence base for COVID-19 management not only for the sake of public health but also for the promotion of Traditional Medicines status in the world.

## 5. CONFLICT OF INTEREST

There is no conflict of interest

## 6. ACKNOWLEDGEMENT

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