Review Article

The immediate response of the Ayurveda Community to COVID-19 outbreak- a critical review

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ABSTRACT

Even as COVID-19 has affected more than one crore people worldwide, no proven medicine for its treatment or prevention has been discovered yet. In the search for a cure or a vaccine, the whole world is looking towards Traditional medical systems also. Accordingly, varied responses have come forward in the form of different studies and guidelines. China, South Korea and India have issued traditional medicinal guidelines on the prevention and treatment of COVID-19. In this review, different electronic databases were searched in PubMed, Embase, CTRI, the Cochrane Central Register of Controlled Trials (CENTRAL), Scopus and Google Scholar using keywords related to COVID-19 and Ayurveda until 26th July 2020. The preliminary studies have helped in profiling COVID-19 as *Vâtakapha* dominant *Sannipâta Jvara* of *Âgantu* origin with *Pittânubandha.* Also, different studies have put forward potential drug candidates for prophylaxis and therapeutic management on the lines of Anti-viral herbs, immune-modulators and *Rasayanas*. Similar thought process involved in such studies augmented the way for developing systematic guidelines for its management by competent authorities.

Keywords: Ayurveda, COVID-19, Complementary and alternative medicine, Herbal drugs, AYUSH

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Introduction

The year 2020 is earmarked in history by the unforeseen and devastating advent of COVID-19 pandemic. The arrival of COVID-19 was initially identified to be "Pneumonia of Unknown origin" when it first emerged in the city of Wuhan in China in December 2019. The meticulous investigation into the cases led to the identification of a novel virus belonging to the Corona virus family to be the causative pathogen. The Corona Viruses were till then hugely popular as a large family of single-stranded RNA viruses (+ssRNA) that were responsible for a wide range of human respiratory illnesses ranging from the easily overlooked common cold to major deadly respiratory infections like MERS and SARS[1]. The new respiratory infection was named COVID-19 in February 2020 as an acronym for "coronavirus disease 2019[2].

Analysis of cases of COVID-19 indicates that human to human transmission of the virus occurs by respiratory droplets (particles >5-10 μm in diameter) from coughing and sneezing and as revealed recently, possibly through aerosol transmission too. Asymptomatic persons seem to account for approximately 40% to 45% of SARS-CoV-2 infections. Its alarming that persons with asymptomatic infections have the same infectivity as symptomatic infections[3].

It would be helpful to know the history of this disease in India, which now has the third largest reported cases globally, to comprehend the challenge it provided to the medical community. The disease was first reported in India in the Southern state of Kerala, in Thrissur district on January 30th, 2020. The Ministry of Health and Family Welfare of India has been rigorously campaigning and implementing stringent measures to contain the infection with the help of state governments[4]. Isolation has been found as the most effective method in containing the illness

as the virulence of COVID -19 has been found to be ten times that of seasonal flu and has a possibility that even individuals who remain asymptomatic could transmit the virus[5,6]. The Indian government implemented a nation-wide lockdown on March 25, 2020, to reduce the transmission of the virus. There are 4,02,529 Active COVID-19 Cases in India. 7,24,577 cases have been reported to be cured and 28,084 deaths have been ascribed to the illness as on 21st July 2020. Even as the regulations persists, local spread of COVID-19 was confirmed by the Kerala State Government on July 18th in the clusters in coastal areas of Thiruvananthapuram district. The huge population of India and crowded living conditions have made spread of infection easy while restraint of the virus seems to be tough.

Even as the COVID-19 disease spreads worldwide, no proven medicine for its treatment or prevention has been discovered yet. China, South Korea and India have issued traditional medicinal guidelines on the prevention and treatment of COVID-19.[7] AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy) comprises of traditional Indian medical knowledge. AYUSH also upholds the universal principles of social distancing, wearing face masks, washing hands frequently with soap or sanitizing, and maintaining personal hygiene as measures to stop the rapid spread of the illness[8]. The time tested wisdom of Ayurveda is being promoted by the Ministry of AYUSH as one of the strategy for preventing COVID-19 by prophylactic measures or with immunomodulatory drugs that would supposedly provide protection from COVID-19[8]. In the present context, this paper seeks to critically review the potential Ayurvedic medicine used as prophylaxis and treatment of COVID-19 through research publications and the proposal for Ayurvedic prophylaxis by ministry of AYUSH, India.

Methodology

Searching: A comprehensive search was done in electronic databases including PubMed, Embase, CTRI (Clinical Trial Registry of India), Cochrane Central Register of Controlled Trials (CENTRAL), Scopus and Google Scholar using keywords “COVID-19” and “Ayurveda” until 26th July 2020. Information available from Gray literature were also searched for relevant information. The prophylactic and intervention measures for COVID-19 proposed by Ministry of AYUSH, Govt. of India at the central and state levels were also searched.

Study selection: All published papers that proposed Ayurvedic medicine and Yoga for overcoming COVID-19 and all trials registered with CTRI related to COVID-19 and Ayurveda.

Inclusion: Studies that focused on Ayurvedic understanding of COVID-19, studies that related to Ayurveda regimen, food, medicine and Yoga in the disease scenario and the ones that directed towards potential therapeutic agents for the disease were included in the study. The trials registered with CTRI related to COVID-19 and Ayurveda.

Exclusion: Articles which did not actually pertain to Ayurvedic research in COVID-19 were excluded from this study. The studies that evolved around role of Ayurveda in any other context, event or disease during the advent of COVID-19 were excluded. Trials not registered in CTRI but registered in some other registry were excluded.

Outcome assessment: Further the studies were grouped based on research design and an attempt was done to critically analyze the findings and recommendations put forth through the studies. Any discrepancy related to inclusion of a research paper was resolved by mutual consensus between first and second author

Results

58 research articles pertaining to the keywords COVID-19 and Ayurveda were screened in this study. The 44 papers included in this review cover various conceptual studies, review articles, observational studies, clinical trials and experimental studies that emphasizes on the application of Ayurvedic principles, medicines and procedures in the prophylaxis and as add on in COVID-19 management. 16 articles were excluded as they did not meet the inclusion criteria and did not justify the objective of this study.

Table 1: Shows the different types of research articles included in this study

Type of study	Number
1. Review articles and conceptual studies	**32**
Ayurvedic understanding of clinical profile of COVID -19	10
Single herbs/ formulations on Ayurvedic management of COVID -19	17
Mode of action of Ayurveda interventions and Yoga	5
2. Observational studies	**2**
Observational studies on symptomatology from case studies followed by survey for Ayurvedic understanding	1
Extensive survey with questionnaire	1
3. Pre- clinical study	**7**
In-vitro studies and molecular docking to envisage role of Ayurveda herbs against Sars-Cov-2	7
4. Clinical study	**1**
Case study	1
5. Editorial articles	2

Conceptual studies pertaining to Ayurveda understanding of COVID-19

As the whole world endeavors to find a worthwhile cure for COVID-19, India's indigenous Ayurveda medicine holds promise of providing a solid solution. Understanding the pathogenesis of the disease as per the philosophy of Ayurveda is of utmost importance in drawing treatment principles and interventions. Researchers in Ayurvedic medicine have worked in all directions in analyzing all possible leads from the science.

Ayurveda fraternity have been able to devise a detailed plan of action for managing each stage of COVID-19 by considering the symptomatology thereby outlining possible interventions and medicines useful categorically, in each stage of the disease[9,10]. It is also acknowledged that the disease could be managed by *kapha-pitta pradhana-Tridoshahara, Rakta prasadaka/Shodak, Agada (Vishahara), Jwara hara, Ashukaari, Bahukalpa Rasayana / Urjaskara* (drugs having immune-boosting properties) against COVID-19.

Ayurveda scholars have also suggested that COVID-19 symptomatology could be connected with *Sannipatika Jwara* (fever of *Tridosa* involvement)[12]. The recommendations for suitable diet, regime and R*asayana* medicines for the prevention and management of the same is also available[12]. Ayurveda community also upholds the role of preventive and management methods of *Samkramaka roga* or communicable disease in tackling COVID-19[13]. Thus application of *Panchakarma* (purificatory methods), *Rasayana* medicines and *Achara rasayana* (behavioral rules) and *Sadvrittam* (code of conduct) as elaborated by Charaka are means of preventing the disease[13]. The importance of following rules pertaining to food intake *(Ahara vidhi visesa ayatana*) has also been stressed[14].

Highlighting possible Ayurveda herbs and formulations against COVID-19:

Appreciable work has been done by Ayurveda community in bringing forth possible *Rasayana dravyas* or immune-modulatory drugs for health promotion, prevention and reducing disease burden from COVID-19 especially among vulnerable groups like geriatric population[15] and paediatric community[16]. As review papers suggest Guduchi (*Tinospora cordifolia*), *Aswagandha* (*Withania somnifera*), ***Kiratatikta*** *(Swertia chirata), Vasa (Adathoda vasica), Katu rohini(Picrorhiza kurroa)* and *Musta*

(Cyperus rotundus) are some potent herbs that could have promising results in COVID-19 as they have been proven useful in other viral diseases also[17]. Even researchers outside Ayurveda community have taken interest in finding leads from Ayurveda against COVID-19 as illustrated by articles that suggest *Triphala*[18] or *Lasuna* (Allium sativum)[19] and even the synergistic prophylaxis by *Piper betle & Swarna Bhasma*[20].

Mode of action of Ayurveda interventions: Conceptual studies

Even when the pathophysiology of the COVID-19 is being explored, the relation between the immune response and susceptibility to the disease cannot be denied. Studies show that SARS-CoV-2, a subgroup of corona virus, directly and indirectly, affects the immune system and avoids being eliminated in early stages .While a strong immune response from the individual could prevent the manifestation of the illness or its symptoms, data from several cases shows that after infection by the SARS-CoV-2, an inefficient immune response could lead to cytokine storm and hyperinflammation, which itself leads to further multi-organ damage and even death[8]. Hence hypothetically, immunomodulation seems to be the key in COVID -19 prophylaxis and cure. An interesting review paper that analyses the recommendations of AYUSH against COVID-19 urges the need the verify the efficacy of these interventions by direct experimenting while the author seeks to view it as 'psycho neuro immune mechanisms' as well as the 'meaning response' [21].According to this article the possible positive effects of the regime could be attributed to the positive influence on immunity either by direct effects on symptoms of depression or anxiety, or through its symbolic significance. The paper concludes that such practices could be beneficial both in terms of psychological quality of life, and in terms of diminishing the risk of infection[21].

Observational studies for understanding the clinical profile of COVID-19 as per Ayurveda:

The philosophical background of Ayurvedic treatment stresses that in a clinical setup preliminarily the understanding of the disease is essential rather than direct derivation of treatment. It is a delight to find that swift action was taken by Ayurveda community in understanding the new disease. Such a study involved primarily the extensive review of available data on pathogenesis and symptomatology of COVID-19. Ayurvedic researchers have made an attempt to study case records of fourteen COVID-19 patients treated at Gurgaon[22]. The symptomatology was compared with data obtained from published literature and later correlation was done with disease conditions from classical Ayurveda literature. Further the preliminary Ayurvedic profile of COVID-19 was formulated by considering expert views of clinical practitioners too[22]. The study concludes that COVID-19 is a *Vâtakapha* dominant *Sannipâta Jvara* of *Âgantu* origin with *Pittânubandha*. The various clinical stages ranging from asymptomatic to critical stages of COVID-19 was analyzed on the basis of *Nidâna, Doca, Dûcya, Nidânapañcaka* and *bamkriyâkâla* in the study results[22].

In-Vitro experimental studies that reveal anti-viral drugs in Ayurveda

- *Nimba (Azadirachta indica* A. Juss) and *Amrita (Tinospora cordifolia* (Thunb.) Miers: In Silico analysis of Inhibitory Effect of Phytochemicals from Nimba and Amrita against SARS-CoV-2 M pro and Spike Protease showed that they prevented the entry of SARS Corona virus by targeting spike protease host receptor ACE2 and restricting replication of the viral genome by targeting M pro residues[23]. This ascertains that Azadiracta indica and Tinospora cordifolia are promising therapeutic agents in COVID 19[23].

- *Shatavari (Asparagus racemosus*)**:** In-vitro studies shows that the phytochemicals of *Shatavari* holds promise as inhibitors of SARS-COV-2 (S) and SARS-COV_2 (N) protein inhibitors. Asparaoside-C and Asparoside-F has good binding with target proteins[24].

- *Aswagandha (Withania somnifera*)**:** A research was done on the plant Withania somnifera (Indian ginseng) using molecular docking and dynamics studies. Molecular docking results recommended that Withanoside X and Quercetin glucoside from Witania somnifera have favorable interactions at the binding site of selected proteins

of SARS-COV-2[25]. Withanoside X showed highest binding free energy thus promising to be the most proficient inhibitor[25].

- A study on the antiviral activity of selected Ayurveda herbs by structure-based drug designing against SARS-CoV-2 spike glycoprotein and its cellular receptor by molecular docking suggested that curcumin and nimbin exhibited highest interaction with spike glycoprotein and ACE2 receptor[26]. The study revealed that curcumin, nimbin, withaferin A, piperine, mangiferin, thebaine, berberine, and andrographolide have significant binding affinity towards both spike glycoprotein of SARS-CoV-2 and ACE2 receptor, and therefore may be useful as a therapeutic and prophylactic agent for restricting viral attachment to the host cells[26].

- In Silico Study of the Drugs of *Nagaradi Kasaya*[27] shows that every selected phytoconstituents of Nagaraadi Kashaya (Sunthi, Puskarmoola, Kantakari, Guduchi) works on minimum one of the targets and hence the formulation may have appreciable results in combating SARS-COV-2.

Clinical studies

There is only a single case report pertaining to management of the disease using Ayurveda medicine published in PubMed.[28] Here COVID-19 was treated by diagnosing the condition as *Agantuja Sannipatika jwara* which is *Vata Kapha* predominant. Three classical Ayurvedic medicines- *Sudarsana churna, Dhanwantharam gulika* and *Taleesadi churna* was administered to the patient in this case study. The study observes that Jwara mukti lakshanas were seen on the seventh day of treatment[28]. The last symptom to resolve was loss of sense of smell, which returned on Day 16 of the intervention.

Clinical trials on Ayurveda for COVID-19 registered with CTRI

The Clinical Trial registry of India was searched using key words "COVID-19", "Ayurveda", "corona virus" and "herbal" for trials registered till 26/07/2020 for Ayurvedic management or prevention of COVID-19[29]. The implementation of Ayurveda principles or medicine as intervention or preventive aid was made the exclusive inclusion criteria. A predesigned excel spreadsheet was used to collect, sort and analyse data. Data collected included trial registry number, sponsors, study design and methodology. Altogether 84 studies met the inclusion criteria in the specified period. 77 interventional studies were found and 7 observational studies. The details of study designs have been shown in table 2.

Table 2 showing study design involved in trials registered in CTRI

Study design used	Number of studies
Observational studies	7
Interventional study	77
• Randomised and Non randomised Controlled Trails	49
Active control	42
Placebo control	5
Not mentioned	2
• Single arm	25
• Black box design	1

Among the interventional studies 37 studies were interventional prophylactic and 40 were interventional therapeutic. 51 studies were government funded and 26 studies had private funding agencies. The single drugs like Guduchi, Yashtimadhu, Aswagandha and Haridra have found place in more than 5 studies each. The formulations like Sudarshan vati, Samsamani vati, AYUSH kwath, Chyawanprasha and AYUSH-64 have been found to be popular among trial drugs as stand alone formulation or in combination.

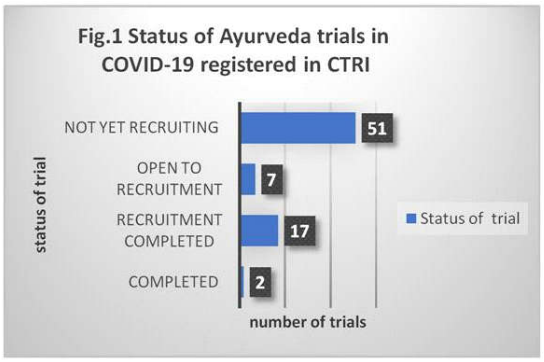

Figure. 1 Diagrammatic representation of status of Ayurveda trials in COVID-19 in CTRI

Cochrane Central Register of Controlled Trials revealed a single study "Ayurveda as Prophylaxis for Suspected COVID-19 Patients" that was ongoing and in the phase of enrollment of participants[30].

Revealing the evidence base in Government of India's recommended Ayurveda regime for COVID-19 prophylaxis

- A network pharmacology analyses of the ingredients recommended by The Ministry of AYUSH to be used as *Kadha* (decoction/ herbal tea) has proven boost immunity and to inhibit the severity of infection caused by a novel coronavirus[31]. The study was done on phytoconstituents of 6 medicinal plants i.e. *Cinnamomum verum* (twak) , *Curcuma longa* (haridra), *Ocimum tenuiorum* (Tulasi), *Piper nigrum* (Maricha) , *Vitis vinifera*(Draksa), *Zingiber officinale* (Nagara) that were retrieved from ChEBI database. The targets of each phytoconstituents were identified using DIGEP-Pred. The study showed that the formulation not only boosted the immunity but was also claimed to effective in respiratory diseases and could be possible cure and prophylaxis for COVID-19.[31]

- The use of Golden milk or Haldi milk has been endorsed by AYUSH as a prophylactic treatment in COVID -19[8]. A conceptual study on potential of turmeric in COVID-19 suggests that the medicinal value of turmeric or *Haridra (Curcuma longa*) could have been identified by its efficiency in managing viral diseases like Influenza A wherein curcuminoids attenuated the lung tissue injury by blocking the NF êB signaling and inhibiting the production of inflammatory cytokines[32]. The paper also quotes researches showing that five active curcumin derivatives decreased H_1N_1-induced neuraminidase activation in H_1N_1-infected lung epithelial cells[32].

- The Ministry of AYUSH has been vocal about benefits of Meditation and Yoga for mental health and immunity during COVID-19 and the same is stressed in research studies[33,34]. As was discussed earlier, a hyperinflammatory host response to SARS-CoV-2 infection is the primary pathway to COVID-19 disease morbidity and mortality. A conceptual study urges for use of Pranayama and Yoga practice during COVID-19 as it has anti-inflammatory and immunomodulatory action as seen through many studies[35]. Yoga therapy was also shown to downregulate the cytokine receptors tumor necrosis factor (TNF)-RII and IL-1RA, and stress-related CRP[36].

1. AYUSH Sanjeevani App: The Ministry of AYUSH has come up with the "Ayush Sanjivani" mobile application for understanding and documenting the measures adopted by public for enhancing immunity and keeping themselves healthy in the difficult COVID-19 situation[37]. Through this app, AYUSH ministry targets to reach out to 50 lakh people in the country and data collected through this app is planned to be analyzed to find out usage of AYUSH interventions and its efficacy in maintaining health by enhancing immunity.[38]

2. Ministry of AYUSH, Govt. of India has also released Guidelines for Ayurveda practitioners for COVID-19.[39] Ayurvedic interventions was categorized into Preventive, Therapeutic and Promotive sections. These

interventions were given to four target groups. Target 1 includes Quarantine and home isolation subjects with or without Corona positive test and health workers. Target group 2 includes Subjects with mild, severe symptoms, comorbid and immunocompromised condition. Target group 3 includes vulnerable group (Pregnant and lactating women, children and geriatric subjects). Target group 4 includes those requiring post treatment restorative healthcare. In Preventive group, Target group 1, General and health workers, suspected and quarantined and immunocompromised people are included. The therapeutic section is divided into mild, moderate and severe category. Under mild category, Target group 1, mild with co morbid conditions, mild with vulnerable population are included. Under moderate category, those having pneumonia with no signs of severe disease, Target group 2, Moderate with co morbid conditions, moderate with vulnerable population, target group 3 are included. Under severe category, Severe cases with respiratory rate greater than 30/min and SpO2 less than 90%, Severe with co morbid conditions, severe with vulnerable population, Target group 3 are included. Under promotive section, Target group 4 and those requiring post recovery maintenance are included. The classification is very logical and levels of interventions are advised accordingly with different medications at each level.

Moreover, according to the symptomatology, the disease is classified into three stages. The first stage has *swasa* and *kasa* symptoms with jwara (COVID-19 positive or negative with mild symptoms). The second stage has *vata kapha pradhana jwara* (COVID-19 positive with specific symptoms at moderate level). The third stage is *Vata Kaphaja Sannipatika jwara* (COVID-19 positive with severe symptoms with respiratory distress etc.)

The descriptions are very lucid with drug advices at each stage, general precautions, tips to improve quality of life, management of comorbidities, Case record format for COVID-19, assessment criteria's and all other necessary requirements. Almost 66 Ayurvedic classical medicines are quoted in that guideline to be systematically used at different stages.

Discussion

Ayurveda community in short has tried earnestly in understanding the pathophysiology, drawing Ayurveda treatment protocol and putting forth preventive medicines against COVID-19. The potential of Ayurveda in managing COVID-19 is mainly anticipated in India at state and national levels. While taking as an example of state level working model, Govt. of Kerala has set up Ayurveda COVID-19 Response Cells, Ayur Raksha Clinics for preventive work for

different age groups and risk categories, *Punarjani* project for promoting convalescence case, *Amrutam* project for prophylactic measures among quarantine individuals for effective utilization of AYUSH strategies against COVID-19 pandemic[40]. However, this goes with the fact that AYUSH systems are not yet approved as a treatment option in COVID – 19 positive cases yet in Kerala.

It is interesting to note that in some states like Gujarat and National capital region, Delhi, AYUSH streams are utilized as a treatment option. Initial unpublished claims among Ayurveda community in Kerala is that there are only very few positive cases turnout from among those people who are taking Ayurveda medicines for prevention and those who are quarantined compared to those who are not taking Ayurveda medicines.

The news that people once cured with modern medical care are returning back to hospitals with poorer functioning in their lungs, heart and liver indicate the long-term effects of this disease[41]. It may also be the tip of an iceberg and we are still to fathom what lies ahead. But looking at this scenario, there may be a possibility that patients who receive Ayurvedic medicines as a standalone or as an adjuvant may be having lesser complications post recovery. Once the long term assessment is obtained regarding the situation in Kerala where AYUSH is kept at bay and in other states where it is actively used in treatment also, we may be able to come to such conclusions.

Few eminent Ayurveda scholars even say that the present pandemic is identical to '*Janapadodhwamsa'* a state where due to either of deranged Vayu (air), Jala (water), Desha

(habitat) and Kala (seasons), certain diseases arise which is capable of killing people in masses[42]. That maybe a controversial statement as we cannot decidedly say that COVID-19 is a *Janapadodhwamsa* rather than a *Samkramika Roga* (communicable disease). There is no widespread and generalized derangement of the elements like air occurring in this disease as such. Situations like cholera where there is derangement of water element in large due to the irresponsibleness of authorities may be more so considered as *Janapadodhwamsa*.

Considering all the findings which were searched diligently, Guidelines for Ayurveda practitioners for COVID-19 by Ministry of AYUSH, Govt. of India seemed to be well organized and suitable to understand and tackle the pandemic effectively. Once these guidelines are executed on a mass scale, should we may be able to get the actual impact of Ayurveda in managing COVID-19 on an immediate and long term basis. All the other research papers are only reflecting upon the individualistic and primary thought process of different practitioners of Ayurveda.

More research studies require to come up to substantiate the claims and to scale up the model at a global level. The healthcare system of India led by modern medicine doctors at large urges to remain neutral and identify the strengths and limitations of the indigenous medical systems through review by experts. The efforts by indigenous medical system including Ayurveda have been sought to be sidelined attributing them to be misleading and lacking enough scientific data. There are published papers in PUBMED that emphasis the need to have plans for collaborations among trans-disciplinary teams to identify potential leads and then develop research protocols for evaluating them through scientific peer-review process[43].

The trial data of clinical trials being conducted by certain Ayurveda private pharmaceutical companies in COVID-19 is yet to be revealed and made available. Modern medical community is always strongly skeptical towards Ayurveda solutions for COVID-19 citing lack of scientific trials and databases. This stays along with the irony that hydroxychloroquine was introduced by the same community without any standard trials and was later withdrawn abruptly. The potential of Ayurveda medicines in tackling COVID-19 and the evidence base of Ayurveda in combating viral diseases like Dengue[44] has been proven constantly. While we look at the Traditional Chinese Medicine (TCM), a systematic review cites that there were 5182 related literatures related to TCM and COVID 19 till June 21, 2020.[45] This is enormous when we compare with 58 articles and 84 trials registered in CTRI related with Ayurveda and COVID 19 as on July 26, 2020.This throws light upon the need for increased governmental support to the AYUSH systems and to integrate it in interventions as was done by China with TCM.

Limitations and Scope

Limitations are present in this review and should also be taken into account. The study focuses mainly on published research articles on Ayurveda for COVID-19. The contributions made by Ayurvedic community in other areas during the pandemic has been excluded in the study methodology. Also the vast majority of trials registered in CTRI and COCHRANE are ongoing ones and only when they are completed and published should we able to come to more conclusions. As the scope of this study, it is a preliminary level assessment and the upcoming studies should be included under this purview for a broader understanding. Once such endeavors are possible, it would be helpful for the policy makers to adapt to rising situations.

Conclusion

Ayurveda community seemed to respond swiftly to the COVID-19 pandemic and is slowly gaining ground in different aspects of its prevention, treatment and recovery management. The present study seeks to draw attention towards the meticulous steps taken by Ayurveda fraternity in understanding and profiling the disease and its intervention methods. This paper is also an attempt to showcase the evidence base in the Ayurvedic COVID-19 management protocol and highlights the numerous leads from Ayurvedic medicine that could be potential interventions in this disease.

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