

Literature Review of Probable Ayurvedic Paralance for COVID-19

Rohit KS^{1*}, Dhanya NS² and Pratap Shankar¹

¹Department of Ayurveda, National Ayurveda Research Institute for Panchakarma (CCRAS), Cheruturuthy, Kerala, India

²Department of Rasasastra and Bhaishajyakalpna, Kriyasareera Ahalia Ayurveda College, Cheruturuthy, Kerala, India

Abstract

Introduction: Corona virus disease called as COVID-19 is an infectious disease caused by a newly discovered Coronavirus. Most people infected with the Corona virus will experience mild to moderate respiratory illness, fever, sore throat etc. Older people and those with underlying medical problems like CVD, diabetes, chronic respiratory disease etc., are more likely to develop serious illness. The Corona virus spreads primarily through droplets of the saliva or discharge from nose when an infected person coughs or sneezes. Ayurveda [Traditional Medicine (TRM) of India as per WHO], the holistic science of medicine, as practiced and utilized by Indians since centuries has many references of diseases having symptoms like COVID-19.

Materials and methods: Paper attempts to review the possibilities of Ayurveda (one among Indian system of medicine) against the pandemic by reviewing the classical literatures of Ayurveda (one among Indian system of medicine).

Results: COVID-19 symptoms in Ayurveda [Traditional Medicine (TRM) of India as per WHO] can be correlated to disease named Jwara (fever), Kasa (cough), Swasa (respiratory diseases). Many of the symptoms mentioned in COVID-19 can be seen in the above-mentioned literature of Ayurveda [Traditional Medicine (TRM) of India as per WHO] along with its treatment.

Discussion and conclusion: Treatment adopted for diseases Jwara (fever), Kasa (cough), Swasa (respiratory diseases) and Immunomodulatory drugs can effectively try for symptoms associated with COVID-19. Ayurveda [Traditional Medicine (TRM) of India as per WHO] the treatment is selected according to the presentation of symptoms which will be a great boon in the present pandemic situation.

Keywords: COVID-19; Ayurveda; Ayurvedic (related to Ayurveda); Swasa

Introduction

Corona viruses are initially zoonotic. This means it first develops in animals before developing in humans. The person when comes to close contact with afflicted animal that carries the infection will get infected [1]. Once the virus develops in humans, corona viruses can be spread from person to person through respiratory droplets. The viral material will be present in the droplets and when breathed into the respiratory tract (your windpipe and lungs), where the virus can lead to an infection. The recent corona virus hasn't been definitively linked to specific animal [2]. Researchers tend to believe that the virus may have been passed from bats to another animal and then transmitted to humans. This transmission most likely occurred in the open food market in Wuhan, China.

Incubation Period

14-28 days before acquiring symptoms.

Signs and symptoms

Shortness of breath, first it develops as mild cough later progress to severe cough, low-grade fever that gradually increases in temperature, Sore throat.

Severe symptoms

Trouble breathing, blue lips or face, persistent pain or pressure in chest, excessive drowsiness etc.

Risk factors

High risk group when come into contact with the patient especially

when exposed to the droplets of the infected one.

High risk groups

1. Direct contact with infected.
2. Providing home care for the infected.

Older people and people with certain health conditions have a higher risk for severe complications if they had been in contact with the virus. These health conditions include: Lung conditions, such as COPD and asthma, Cardiac diseases, Immune system conditions, such as HIV, Cancer, Severe obesity, Other health conditions that includes diabetes, kidney disease, or liver disease, Pregnant women [3].

Diagnosis

COVID-19 can be diagnosed using blood, saliva, or tissue sample. However, most tests use a cotton swab to retrieve a sample from the inside of nostrils.

1. RT PCR assay is one of the molecular assays available for corona.
2. Test for Immunoglobulins-IgM/IgG Rapid test.

***Corresponding author:** Rohit KS, Department of Ayurveda, Research officer (AYU) CCRAS, National Ayurveda Research Institute for Panchakarma (CCRAS), Cheruturuthy, Kerala, India, Tel: 9446184337; E-mail: rohitksgavc@gmail.com

Received: May 08, 2020; **Accepted:** May 22, 2020; **Published:** May 29, 2020

Citation: Rohit KS (2020) Literature Review of Probable Ayurvedic Paralance for COVID-19. J Tradit Med Clin Natur S1: 001.

Copyright: © 2020 Rohit KS, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Treatment

There's currently no treatment and vaccines, treatment mainly focuses on managing symptoms as the virus runs its course [4]. Other corona viruses like SARS and MERS are treated by managing symptoms. Examples of therapies used for these illnesses are:

1. Antiviral or Retroviral medications
2. Breathing support, such as mechanical ventilations
3. Steroids to reduce lung swelling
4. Blood plasma transfusions etc.

Complications

From COVID-19 the most serious complication of a SARS-CoV-2 infection is a type of pneumonia it's been called 2019 novel corona virus-infected pneumonia (NCIP).

1. Acute Respiratory Distress Syndrome (Ards)
2. Irregular heart rate (Arrhythmia)
3. Cardiovascular shock
4. Severe muscle pain (Myalgia)
5. Fatigue
6. Heart damage or heart attack

Prevention tips

1. The best way to prevent the spread of infection is to avoid or limit contact with people who are showing symptoms of COVID-19.
2. Practice good hygiene and social distancing to prevent bacteria and viruses from spreading.
3. Wash your hands frequently for at least 20 seconds at a time with warm water and soap.
4. Don't touch the face, eyes, nose, or mouth when your hands are dirty.
5. Consult doctor if you're feeling sick or have any cold or flu symptoms.
6. Stay at least 1 meter away from anyone who is coughing or sneezing.
7. Cover your mouth with tissue whenever we sneeze or cough. Throw away the used tissues on closed waste bins.
8. Clean the objects you touch a lot. Use disinfectants on all utensils and articles which are daily in use.

Ayurvedic Paralance (Correlation of COVID-19 with Ayurveda)

Ayurveda [Traditional Medicine (TRM) of India as per WHO] is one of the oldest healing systems prevailed in India. In Sanskrit, Ayurveda means "The Science of Life". Ayurveda [Traditional Medicine (TRM) of India as per WHO] places great emphasis on prevention of diseases and maintenance of health [5]. Ayurveda [Traditional Medicine (TRM) of India as per WHO] works on basis of its pillars Vata, Pitha and Kapha. Vata is the energy associated with movement and activity, Pitha is the energy associated with digestion or metabolism and Kapha is the energy associated with lubrication and structure. All people have Vata, Pitta and Kapha in their body constitution [6-10]. The cause of

disease in Ayurveda is viewed as a lack of proper cellular or metabolic function due to an excess or deficiency of Vata, Pitta or Kapha. Disease can also be caused by the presence of toxins or microbes.

COVID-19 symptoms in Ayurveda [Traditional Medicine (TRM) of India as per WHO] can be correlated to disease named Jwara (fever). In Charaka Samhita, Jwara is defined as the state where the body, mind as well as sense organs suffer due to the high temperature. As per Ayurveda [Traditional Medicine (TRM) of India as per WHO] Jwara (fever) is considered as head of diseases (Shailesh nadkarni Arogya mandir patrika).

Cause of Jwara: Nija hetu (internal cause) and Agantu hetu (external cause) where Hetu stands for cause of a disease [11].

Nija hetu are due to factors develop due to metabolic defects.

Agantu Hetu: Aagantuja Hetus are the external factors which lead to vitiation of the Doshas (body humours).

Agantuja Hetu is classified in the following four types.

1. Abhigataja: Trauma due to fall or injury due to any external object
2. Abhicharaja: Can be classified under black magic or evil things
3. Abhishapaja: Curses of furious ancestors or pious souls etc.
4. Abhishangaja: It includes Desires, Anger, Fear, Toxins, Smell of toxins as well as Grahabadha (microbes) (Shailesh nadkarni, Arogya mandir patrika).

As per Ayurveda [Traditional Medicine (TRM) of India as per WHO] Agantu jwara (fever due to external cause) will lead to Nija jwara (fever due to metabolic defect) after 7 days [12-16,17]. During Nija jwara (fever due to metabolic defect) symptoms shows more resemblance to Tritiyaka and Chaturthaka jwara these are types of fever mentioned in Ayurveda [Traditional Medicine (TRM) of India as per WHO]. Tritiyaka jwara manifests when the dosha afflict the Mamsa dhatu (muscular tissues). Dosha lodging in channels of circulation of Medo dhatu (fatty tissues) cause Chaturthaka jwara.

Apart from Jwara (fever) it has symptoms similar to Kasa this disease clearly correlates with cough and its pathophysiological characteristics exactly correlate the mechanism of cough reflex. Kapha (energy associated with lubrication and structure) is the main aspect in production of Kasa (cough) [18]. Early intervention is necessary in Kasa as it is a potential Nidanarthakara Vyadhi (causative factor for another disease) as it can produce Swasa (respiratory diseases) at last Kshaya (tb).

In advanced stages it shows symptoms which shows similarities with Urdhwa swasa (copd) which has typical feature like: Inability in inspiration, adhesion of mouth and breathing channel with phlegm, affliction with aggravated Vayu (energy associated with movement and activity), bewildered eyes, unconsciousness, affliction with excessive pain, dislike for everything, inspirational dysfunction paleness, death [19].

Rasayana therapy is mentioned among eight limbs Ayurveda mainly dedicated for anti-degenerative, immunomodulators, rejuvenative health care and for preventing the effects of ageing and improving the quality of life of healthy individuals as well as diseased individuals. According to Ayurveda [Traditional Medicine (TRM) of India as per WHO]

Treatments adopted will incorporate treatment principles of disease Jwara (fever), Kasa (cough), Swasa (respiratory diseases) and Rasayana (immunoboosters).

1. Agantuja Jwara (fever due to external factors) (Shailesh nadkarni. Arogya mandir patrika). In Abhighataja Jwara is one type among Agantuja Jwara (fever due to external factors) - Ghrutapana (internal administration of medicatedghee), Abhyanga (oleation therapy), Raktavistravana (bloodletting), and Daivavyapashraya (treatment using religious rituals), Ashwasana (counseling), Vishaghna Chikitsa (treatment against toxins)should be done [20].

2. T tiyaka and Chaturthaka jwara is a type of fever which has specific line of treatment since these two types of fever are mostly associated with Agantu or extraneous factors as Bhutas (including germs) [21]. When Vayu (energy associated with movement and activity), is predominantly aggravated in these two types of Jwara, then they should be cured by the administration of Ghee, Niruha and Anuvasana bastis (medicated enemas), with hot diet and drinks [21].

3. When the Pitta (energy associated with digestion or metabolism) is vitiated the patient should be given purgation therapy, they are supplemented with medicated milk, ghee and articles which are bitter and cold.

4. In state of Kapha (energy associated with lubrication and structure) is vitiated then the patient should be administered emetic therapy, Pachana (therapy which promotes the digestion and metabolism), and supplemented by unctuous diet and drinks, fasting and hot decoctions are useful [22].

5. Decoction prepared by using Andographis paniculata, Tinospora cordifolia, Pterocarpus santalinus, Zingiber officinalis, in Tritiyaka jwara and decoction of Tinospora cordifolia, Embelica officinalis, Cyperus rotundus can be used in Chaturthaka jwara [23,24].

Management of Abhighataja jwara (fever due to external factors), Kasa (cough) and Swasa (respiratory disorders) treatment are to be incorporated accordingly [25]. Based on disease severity and strength of patient the mode of treatment whether Shodhana (purificatory therapies mentioned in Ayurveda) or Shamana (mitigation therapies mentioned in Ayurveda) must be decided.

Formulations used in Ayurveda [Traditional Medicine (TRM) of India as per WHO] to control Jwara (fever), Kasa (cough), Swasa (respiratory disorders) and the medicines given as Rasayana (immunomodulators) along with curative therapy are mentioned below.

Medicines

Used in Kasa (cough) And Swasa (respiratory disorders)

Decoction

Puskarmuladi kashaya, Dashamoolakatutraya kashaya, Nayopayam kashaya, Balajeerakadi kashaya.

Churna (medicated powders)

Shatyadi, Mukyadi, Talishadi, Sitopaladi, Vyoshadi vati

Gutika (tablets)

Eladi

Ghrita (medicated ghee)

Manahshiladi ghrita, Vasa ghrita, Dasmuladi ghrita, Tejovatyadi ghrita, Kulatthadi ghrita

Vihara (lifestyle patterns)

Some special breathing yogaasana recommended for decrease the intensity of respiratory distress. Yogaasana (one among Hatha yoga). Ushtrasana, Simhasana, Sarvangasana, Matsyasana, Uttanasana, Pranayama (Yogic breathing exercise) also help for management of Respiratory distress.

Rasayana(immuno modulators)

Chyavanprasha, Gudardhra, Agastya hareetaki (The Ayurvedic formulary of India, Part 1), Vasa avaleha, Amritaprasha avaleha.

Recent Research in COVID-19

1. The WHO Strategic and Technical Advisory Group for Infectious Hazards (STAG-IH) regularly reviews and updates risk assessment of COVID-19 to make recommendations to the WHO health emergencies program. STAG-IH's most recent formal meeting on March 12, 2020, included an update of the global COVID-19 situation and an overview of research priorities established by WHO Research and Development Blueprint Scientific Advisory Group, to prioritize the recommendations. WHO recommended STAG-IH understands of control activities with the group's risk assessment and recommendation?

2. Recent studies in Ayurveda proposed the need of pragmatic design to facilitate learning, generate evidence and shall be a way forward in management of COVID-19 [26].

3. Recent studies showed the importance of preliminary clinical profiling of COVID-19 based on review of modern medical and classical Ayurvedic (related to Ayurveda [Traditional Medicine (TRM) of India as per WHO]) literature with inputs from Allopathic clinicians treating COVID-19 patients assumes significance in present scenario.

Discussion

COVID-19 is the infectious disease caused by recently discovered corona virus. COVID-19 is now a pandemic affecting many countries globally. The most common symptoms of COVID-19 are fever, dry cough, and tiredness, nasal congestion, headache, sore throat, diarrhoea, loss of taste or smell. These symptoms are usually mild and begin gradually. Most people (about 80%) recover from the disease without needing hospital treatment. Only Some Patients becomes seriously ill and develops difficulty breathing. Older people, and those with underlying diseases like high blood pressure, heart and lung problems, diabetes, or cancer, are at higher risk of developing serious illness. Till present day no specific medicines are there for COVID-19.

Ayurveda [Traditional Medicine (TRM) of India as per WHO] is one of the oldest healing systems prevailed in india. COVID-19 symptoms in Ayurveda [Traditional Medicine (TRM) of India as per WHO] can be correlated to disease named Jwara (fever), Kasa (cough), Swasa (respiratory diseases). Many of the symptoms mentioned in COVID-19 can be seen in the above mentioned litreture of Ayurveda [Traditional Medicine (TRM) of India as per WHO] along with its treatment. Adopting the the Treatment principles as per the symptoms will fetch optimum results, which will be a great boon in the present pandemic situation.

Conclusion

When going through the literature review mentioned in Ayurveda [Traditional Medicine (TRM) of India as per WHO] the signs and symptoms of CoVID-19 almost shows similarity to spectrum of disease mentioned in classical literature of Ayurveda [Traditional Medicine (TRM) of India as per WHO] which include Agantu jwara (fever due to external factors), Kasa (cough), Swasa (respiratory diseases) mentioned in Ayurveda [traditional medicine (TRM) of India as per WHO]. Treatment adopted for diseases Jwara (fever), Kasa (cough), Swasa (respiratory diseases) and Immunomodulatory drugs mentioned as Rasayana can effectively try for symptoms associated with COVID-19. Ayurveda [traditional medicine (TRM) of India as per WHO] the treatment is selected according to the presentation of disease the treatment mentioned for symptoms can be considered effective in the present scenario.

Note: Self-medication is harmful consult physician aptly and decides the medication.

Conflict of Interest

NIL

References

- Acharya Vagbhata (2016) Kasa chikitsa. Govindan vaidyan. P.M (edn). Ashtanga hridaya, Kodungalloor. Kochi, Kerala, India, pp: 94-101.
- Acharya vagbhata (2015) Nasaroga pratishedha. Srkanta Murthy (edn.8). Ashtanga hridaya, Kodungalloor. Varanasi, Chowkhamba Krishnadas Academy, Uttar Pradesh, India, pp: 5-7.
- Agnivesha (2011) Trimarmiya chikitsa. Gorakhnath chaturvedi (edn). Charaka Samhita of Agnivesha elaborated by Charaka & Drudhabala. Varanasi, Vidhyotini Vyakhya Choukhambha bharti academy Prakashan, Uttar Pradesh, India, p: 733.
- Agnivesha (2011) Rasayana chikitsa. Gorakhnath chaturvedi (edn). Charaka Samhita of Agnivesha elaborated by Charaka & Drudhabala. Varanasi, Vidhyotini Vyakhya Choukhambha bharti academy Prakashan, Uttar Pradesh, India, p:16.
- Agnivesha (2011) Shvayathu chikitsa. Gorakhnath chaturvedi (edn). Charaka Samhita of Agnivesha elaborated by Charaka & Drudhabala. Varanasi, Vidhyotini Vyakhya Choukhambha bharti academy Prakashan, Uttar Pradesh, India, p: 365.
- Agnivesha (2011) Hikka Swasa chikitsa. Gorakhnath chaturvedi (edn). Charaka Samhita of Agnivesha elaborated by Charaka & Drudhabala. Varanasi, Vidhyotini Vyakhya Choukhambha bharti academy Prakashan, Uttar Pradesh, India, p: 526.
- Agnivesha (2011) Rajyakshma chikitsa. Gorakhnath chaturvedi (edn). Charaka Samhita of Agnivesha elaborated by Charaka & Drudhabala. Varanasi, Vidhyotini Vyakhya Choukhambha bharti academy Prakashan, Uttar Pradesh, India, p: 297.
- Agnivesha (2011) Kshatakshina chikitsa. Gorakhnath chaturvedi (edn). Charaka Samhita of Agnivesha elaborated by Charaka & Drudhabala. Varanasi, Vidhyotini Vyakhya Choukhambha bharti academy Prakashan, Uttar Pradesh, India, p: 343.
- Agnivesha (2011) Gulma chikitsa. Gorakhnath chaturvedi (edn). Charaka Samhita of Agnivesha elaborated by Charaka & Drudhabala. Varanasi, Vidhyotini Vyakhya Choukhambha bharti academy Prakashan, Uttar Pradesh, India, p: 218.
- Agnivesha (2011) Kasa chikitsa. Gorakhnath chaturvedi (edn). Charaka Samhita of Agnivesha elaborated by Charaka & Drudhabala. Varanasi, Vidhyotini Vyakhya Choukhambha bharti academy Prakashan, Uttar Pradesh, India, p: 547.
- Bagde AB, Sawant RS, Nikumbh MB, Kale AB, Dhindhime RS (2013) Rasayana chikitsa: Antiaging therapy of Ayurveda. Int Res J Pharm 4: 64-69.
- Chakrapanidatta (2011) Kasa chikitsa. Yadavaji Trikamaji (edn). Charaka Samhita, of Agnivesha elaborated by and Drudhabala. Varanasi, Chaukhambha Surbharati Prakashana, Uttar Pradesh, India, p: 540.
- Chakrapanidatta (2011) Apasmara nidana. Yadavaji Trikamaji (ed). Charaka Samhita, of Agnivesha elaborated by and Drudhabala. Varanasi, Chaukhambha Surbharati Prakashana, Uttar Pradesh, India, p: 227.
- Saka VN (2019) A Critical reviews: Tamaka shwasa (bronchial asthma). Int J Res Granthaalayah. 7: 258-264.
- Osterholm M, Moore K, Ostrowsky J, Kimball-Baker K, Farrar J, et al. (2016) Team WT. The Ebola Vaccine Team B: A model for promoting the rapid development of medical countermeasures for emerging infectious disease threats. Lancet Infect Dis 16: e1-9.
- Radzimińska A, Kozłowska S, Strojek K, Styczyńska H, Zukow W (2016) Kompleksowa fizjoterapia w astmie oskrzelowej-przegląd literatury: Comprehensive physical therapy in bronchial asthma: A literature review. J Edu Helt Spt 6: 53-67.
- Govinddas (2005) Rajyakshma Rogadhikara. Mishra (edn.13). Bhaishajya Ratnavali. Varanasi, Chaukhamba Surbharati Prakashana, Uttar Pradesh, India, p: 408.
- Mamidi P, Gupta K (2017) Shukra Dhatugata Jwara-Rabies Encephalitis. Int J Complement Alt Med 7: 00219.
- Bedford J, Enria D, Giesecke J, Heymann DL, Ihekweazu C, et al. (2020) COVID-19: towards controlling of a pandemic. Lancet 395: 1015-1018.
- Krishnanvaidyar (2016) Sahasrayogam (34 edn). Alapuzha, Vidyarambham pulishers, Kerala, India, p: 63.
- Acheson LS, Wiesner GL, Zyzanski SJ, Goodwin MA, Stange KC (2000) Family history-taking in community family practice: Implications for genetic screening. Gnts Med 2: 180-185.
- Patra Gajendra Singh, Bhagat S, Agrawal AK, Gupta R, Rout OP (2016) Current update of Ayurvedic drugs used in fever: A critical review. Int J Res Ayurveda Pharm 7: 19-25.
- Puthiyedath R, Kataria S, Payyappallimana U, Mangalath P, Nampoothiri V, et al. (2020) Ayurvedic clinical profile of COVID-19-A preliminary report. J Ayurveda Integr Med 975: 30039-30045.
- Rastogi S, Pandey DN, Singh RH (2020) COVID-19 Pandemic: A pragmatic plan for Ayurveda Intervention. J-AIM.
- Shailesh nadkarni. Arogya mandir patrika, Jwara Vyadhi Visheshank. Weblog.
- Sen S, Chakraborty R (2017) Revival, modernization and integration of Indian traditional herbal medicine in clinical practice: Importance, challenges and future. J Tradit Complement Med 7: 234-244.