

Understanding About Novel Coronavirus and Ayurveda Guidelines for Preventive as well as Curative Aspect of Pandemic Diseases Like COVID-19

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ABSTRACT

Ayurveda is not an old medical science and nor developed through experimental efforts by research scholars in ancient period as perceived by some. But it is the direct gift of supreme soul to mankind which is practically effective at any time of need. Detailed information about viruses like SARS-CoV-2 is already described in Ayurveda in the name of Rakshas or Pishacha (microorganisms invisible to naked eyes). Management of kaphajjwar or vata kaphajjwar or other types of fever as per their manifestation may be adopted for COVID-19 and management of swas (asthma) can be adopted for emergency situation to get improved anticipated results. The causes of epidemic or pandemic diseases, prevention as well as controlling methods have been described under Janapad dhwansaneeya adhyaay (chapter about mass casualty). The purpose of this study is to disseminate the available knowledge of Ayurveda regarding novel coronavirus, epidemic or pandemic diseases in the present scenario of COVID-19 outbreak, to all health streams. Further research may be taken up to establish a scientific treatment protocol as well as preventive measures for COVID-19 outbreak successfully. Conclusion may be drawn that Ayurveda is not just an ancient medical science but it has accommodated solutions for future incoming problems also. Trial is needed to substantiate them in present scientific protocol.

Keywords: Janapaddhwans, Pishacha, Kaphajjwar, Swaas, Pandemic disease, COVID-19

INTRODUCTION

Ayurveda is a direct gift of Lord Brahma to the mankind, not just an old medical science which has been developed through experimental efforts by research scholars in ancient period, as perceived by some. Due to this misperception, most of the time Ayurved have been considered only for preventive or chronic or metabolic problem. But reality is, it is practically effective at any time of need for every problem of the society including emergency aspects, as Ayurveda is science of life.

Unfortunately it has not been proved yet in its full potency due to several causes. COVID-19 disease by Novel Coronavirus is a very serious pandemic outbreak of this century. It is a very alarming situation for the entire world which needs some immediate solution. Till now there is no official treatment except symptomatic aids. A very elaborative illustration is available regarding epidemic and pandemic diseases both in Charak and Sushrut samhita. So this is the need of time to understand it in depth and utilize its power for mankind.

AIMS AND OBJECTIVES

- To acknowledge the available knowledge of Ayurveda regarding epidemic and pandemic diseases like COVID-19
- To search out the available knowledge of Ayurveda regarding novel corona virus
- To establish a scientific treatment protocol through further research for corona virus pandemic.
- To disseminate the preventive measures in the society to control epidemic or pandemic outbreak.

MATERIAL AND METHODS

Maximum materials have been collected directly from ancient literature like Charak and Sushrut samhita, compiled by acharya Charak and acharya Sushrut respectively near about 5000 years back. These are the basic treatise of Ayurveda. As per the available history these knowledge are based on truth and are not developed through research as modern science but are the compilation of direct knowledge postulated by lord Bramha, through a series of deity. So no single research in Ayurveda based on original knowledge has been proved as false till now. Later on some other treatise has been added by different acharyas as per their own logic and experiment but in some places they have deviated from original knowledge. So the trend of inclusion has been adopted in Ayurvedic research instead of trying to understand the value of originals. Due to this long back history of deviation lots of controversy has been added in Ayurveda and originality of Ayurveda has been lost. As a result of which, gradually confidence on original literature has decreased among Ayurveda faculty. Very few studies have been conducted in Ayurveda regarding its literary aspect due to this loss of confidence. No single review study conducted regarding this pandemic outbreak (Janapaddhwaskaari disease) and its cause till date. This is completely new study based on original available literature.

Epidemic or pandemic diseases as per Ayurveda:

In Charak samhita “Janapadadhvamsa” term has been used for mass casualty where as in Sushrut samhita “maarak” term has been used for this. Several causes have been mentioned for mass casualty. These causes broadly can be divided into two categories.

1. Vyapana ritujanit (due to climate change)
2. Avyapanaritujanit (without climate change or in normal climate).

Vyapanaritujanit mass casualty occur as a result of gradual impairment of Vayu (air), Jala (water), Desha (land), Kaala (season or climate). Due to this polluted air, soil, water bodies and climate, the source of food and drugs lose their qualities and become unhealthy for us. These injurious traits from food and drugs ultimately enters into the food chain and aggravation of same doshas occur all over the region at the same time leading to epidemic or pandemic form of a disease and sometime may cause mass human casualty (Janapadadhvamsa)¹.

Avyapanaritujanit mass casualty occurs as a result of krutya (war) Abhishapa (curse by Siddha Purush) or Rakshakrodha (anger of evil spirit)². The root cause of these all causes is told as Adharma (personal, social and intellectual misconduct. These gross misconducts have descended from upper level to lower level in a social community and have originated from greediness³.

Concept of microorganisms as per Ayurveda

According to Sushrut Samhita Upasarg aroga (communicable diseases) comes under Daivabalapravrittaroga, which is a subtype of Adhidaivikvyadhi. This Daivabalapravrittaroga may be an outcome of sansarga (contamination) of pisachaetc (microorganisms)⁴. During the reference of mass casualty, rakshasa term has been mentioned. In the context of vranitapasaniyaadhyay, nishacharterm has been mentioned. To protect the wound from these

nishachara several precautionary method, Rakshamantra and management has been described⁵. In the context of Amaanushapasarga chapter it has been described that innumerable numbers of anuchara (retainer) of graha are there in the environment, who affects the human beings⁶. Eight graha such as Devta, Devashatru, Gandharva, Yaksha, Pitara, Bhujanga, Rakshasa and Pisacha have been counted in that chapter, among them Rakshasa and Pisacha may considered under microorganisms because during the context of communicable diseases these terminology have been mentioned⁴. The Graha directly cause psychosomatic disorders but the anuchar of them may cause disease in humans. In the context of krimi, raktajkrimi also may be considered as microorganisms because as per reference they are not visible in naked eye. So Rakshasa/Pisacha/nisachar/raktajkrimi term has been mentioned for microorganisms in Ayurveda. Among them novel coronavirus may be considered under Rakshasa or Pishacha, these are also called as nishachar because they usually roam during night⁶. Raktajkrimi specially causes skin diseases which is not a feature of covid-19⁷.

In Sushrut samhita aupasargika term has been explained for complications of another disease⁸. Pisacha, rakshasa are considered as causative factors for Daivavalpravrittarogas. So upadrava also may be considered for upadrava of pishacha or rakshasa. Aupasargika form of kustha (Skin diseases), jwar (Fever), shosha (Rajyaksma), netrabhisyaanda (Conjunctivitis) are considered as communicable diseases. The mode of transmission of these communicable diseases as per Ayurveda are prasangaat (sexual contact with patient may be the proper meaning in this context), gaatrasansparshaat (direct contact with patient), nishwasat (droplet during respiration), sahabhojan (sharing of same food article and utensils), sahasaiyaandsaha asana (sleeping or seating together), bastramaalyaadilepanaat (contact with clothes, garlands, ornaments and instruments of patients) etc⁹. So particular varieties of Jwar, kustha, sosha and netrabhisyaanda,

which are occurring in the form of upasarga of microorganisms, should be considered as communicable diseases. The present situation of COVID-19 pandemic may be comes under upasargajroga which is causing janapadadh was a as far as Ayurveda perception.

Ayurveda diagnosis of the disease Covid-19

As per Ayurveda principle, whatever may be the cause, the diseases cannot occur without vitiation of doshas¹⁰. First of all a specific diagnosis of a disease is essential. Initially the sign and symptoms of disease Covid-19 most probably comes under kaphajjwar as far as author's scientific belief and knowledge. The symptoms of Kaphajjwar are: Gaurav (Feeling of Heaviness or Tiredness), Sita (Mild chill in body), Utklesh (Nausea), Romaharsha (Mild Shivering), Atinidrata (Hypersomnia), Srotorodha (Obstruction in channel including breathing difficulty), Rukalpatwam (Mild pain in body), Praseka (Hypersalivation), Madhurasyata (Sweetish taste in mouth), Natiushnagatrata (Mild fever), Chhardi (vomiting), Angasada (Bodyache), Avipaka (Indigestion), Pratisyaya (Runny Nose), Aruchi (Anorexia), Kasa (Cough) intensity, Akhna cha shuklata (Pallor in eye)¹¹. Common symptoms of COVID-19 include¹².

- Fever
- Tiredness
- Dry Cough

Other symptoms Include

- Shortness of Breath
- Aches and Pains
- Sore Throat
- Few will develop Diarrhea, Nausea or Runny Nose

These symptoms are usually mild and start gradually. Some infected people do not develop symptoms and most people around 80% recover from the disease without any special treatment. Older people and others with preexisting medical problems are more susceptible for

serious illness (WHO). Almost every symptom is present in kaphajtype of jwara as per Ayurveda. Most positive point of Ayurveda is its diagnosis is possible only through proper history so there is least chances of contamination during diagnosis.

Management Strategy of Covid-19 in the context of kaphajjwar

As this outbreak is highly contagious in form all the way of contamination advised in Ayurveda as mentioned above also should be avoided strictly for prevention as well as during treatment. The lock down or social distancing are nothing but the present way of avoidance of contamination. For treatment point of view, the patients may be divided into two groups

1. Patients with no previous health problems
2. Patients with previous health problems or health compromised patients

Case of Patients with no Previous Health Problems

Again these patients may be divided into two categories

1. Persons having good strength and immunity
2. Comparatively weak people like children, aged people, pregnant women etc.

The treatment protocols of mild case of kaphajjwar (Covid-19) may be as follows

Langhan (Fasting): Langhan is the initial treatment for Kaphajjwar for adult persons having good strength. Langhan means not taking food for a certain period even if someone is hungry. Fasting should be done as per own strength. Langhan helps to eliminate the aamadasha (Improperly digested toxic metabolites that forms as a result of impaired agniand is the main cause of jwar), reduce the fever, improve appetite, increase interest for intake of food, produce lightness in body. Langhan is contraindicated for patients having kshyaya (weak patients), pregnant women, old age persons and kid's

etc. they should be given a light diet after overcoming from amavastha¹³. Langhan should be done up to proper excretion of flatus, urine and faeces and appearance of sweat, hunger and thirst. Excess fasting can produce complications like excess thirst, sleepiness, kaas, swaasetc¹⁴. So adequate fasting should be done.

Ushna Jala (Warm Water)

Warm water improve the appetite that was lost in kaphajjwar, it reduce the aggravated kapha, improves anuloman (Improve the normal function of vataand pitta), so it is suitable for both kaphaj and vataj war. Normal water should be avoided because it may aggravate the fever¹⁵.

Jwaraghnakashay (Medicinal Treatment)

In Ayurveda great emphasis has been given to suitable time for medicine intake. Success of treatment depends on its medicine dose and time of intake¹⁶. Medicine for fever should be started after paachan of doshas means after achieving doshamruduta (peak of fever become little down), feeling of lightness in the body and urge for natural urges like urine, stool and thirst etc.¹⁷. In case of excessive aggravation of doshas and patient having very low digestive capacity sometime doshapaachan never occur even after 7 days of langhan, intaking usna jala and peya. In that condition there is need to take appropriate kashay(medicine) for doshapaachan without waiting for paakavastha for more periods¹⁸. Medicine should not be taken before paakavastha otherwise it may leads to complication or vishamjwar (recurrent type of fever)¹⁹. Several formulations have been advised for this fever²⁰.

1. Kwath or decoction of saptaparna, guduchi, neem, phanijjak with honey.
2. Churna (Powder) or kwath of trikatu, naagkeshar, haridra, katuki, indrayava
3. Kwath or decoction of nagarmotha, indrayav, triphala and phalsa.
4. Kwathor decoction of pippalyaadigana²¹.

Role of Shirovirechannasya (Nasal Drops):

Heaviness in head or headache may be due to of kapha aggravation in Shiro Pradesh (Head)²². Nasya (Nasal Drops) 4 to 8 drops each nostril with medicated oil prepared from shirovirechan dravya like Trikatu, Vidanga, Apamargaveejtandul, Sigrū, Sweta Sarsapa, Tulsi and Rasona etc. should performed in adult patients²³ and two drops each nostril may be applied to any other persons.

Role of Medicated Ghee: After 12 days if fever persists patients should be treated with medicated ghee²⁴. This time the fever may be considered as jeernajwar. Medicated ghee like Guduchyadighrit, Kalyanaadior Mahakalyaanakghrit, Panchgavyaghritor Patolaadighr it should be advised²⁵.

Treatment in Specific Situation

Weak or debilitated Patients with moderate respiratory symptoms- may be treated by medicated Ghritsuch as Dashmooladighrit²⁶, Guduchyadighrit²⁷, Kaasmardiyadighrit²⁸, as described in Swasand Kasaroga Chikitsa under proper medical guidance and hospitalization.

In case of moderate to severe respiratory distress-

- (i) For young patients with breathing difficulty due to kapha aggravation in chest-Abhyang by Til tail mixed with salt over the chest may be preferred followed by swedan and then Vamana with Pippali, Saindhalavan and honey²⁹. Then dhumapana should be given after vamana to clear the airways with vartiprepared from the followings
 - a. Haridra, Yau, Erandmool, Laksha, Mansheela, Devdaaru, Jatamansiafter dipping it in ghrit
 - b. Yavchurna with ghrit
 - c. Madhuchista, Sarjarasandghrit³⁰
 - d. Ghrit, Jau, Madhuchista and Sarjaras³¹
- (ii) In case of old patients, child or patient having less

strength vomiting should not be done. Dhumpaan should be administered directly after abhyang and swedan as mentioned above along with medicated ghee as mentioned above for internal intake, after that light diet should be used³².

- (iii) Nasya by Rasona (Garlic) or Palandu (Onion) or Grinjanak (Carrot) swaras also may be applied during respiratory distress as an emergency management³³.
- (iv) If the airway is obstructed by vitiated kapha, kshaar (ashwagandhakshaar with honey and ghee) intake has been advised to clean the airway and promote air to pass³⁴.
- (v) Kantkaari (Solanum xanthocarpum) 1part, Amla 1part and Hingu 1/2 part with honey for 3 days has been advised by Sushrut may also be used³⁵.

Line of Treatment in Brief

In Ayurveda an elaborate and systematic treatment principle is available regarding kaphajwar which may be tried for covid 19 in this time of unavailability of proved treatment for this. In brief, the treatment may be summarized as-

1. Do not give any medicine or diet to any patients until there is no appetite because as per Ayurveda if any medicine given in amavastha it may convert into vishamjwar (recurrent type of fever).
2. Advise fasting in case of adult as per patient own strength
3. Boiled water is advised after feeling of thirst
4. Appropriate decoction should be started after achieving paakavastha (as mentioned above)
5. If heaviness or mild headache occur then shirovirechannasya should advised as mentioned above
6. A light diet should be given during entire suffering because aama (undigested or partially digested material) is the principal cause for most of the fever.

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7. If recovery never occur within 12 days medicated ghee should be advised as mentioned above
8. In case of breathing difficulty specific nasya or dhumpaana should advised as mentioned above

Pathya (advisable diet) for kaphajjwar

- Fever patients should take peya (watery semi solid food prepared from sadangapaniya (decoction of mustak, sunthi, ushira, parpatak, udirya and raktchandan) after proper langhan³⁶.
- Light diet should be used after relief of fever³⁷
- Mudgayusha (Green gram soup) with rice can be taken 38
- Takra (Butter Milk) with Trikatuchurna³⁹
- Trikatuchurna with old Jaggery and Ghrit⁴⁰
- Mudgayusha with saindhavlan, yavkshaar, shigrueej, marichachurna can be taken as diet during breathing difficulty⁴¹.

Other probable diagnosis

Now Covid-19 is expressed in other forms also. Ayurveda diagnosis of a disease may vary as per its manifestation. Every possible type of fever has been described under disease jwara. Because the knowledge of Ayurveda has been written for Trikaal (past, present and future). Only there is a need to identify it properly.

Vatakaphajjwar- our body is influenced by the season. Grishmaritu has been started since the middle of April. During this season vata accumulation occurs naturally in our body which further progress to vitiation of vata in Pravrut (premonsoon) season. Specific diet regimen has been advised in Ayurveda to pacify this vata aggravation. So Covid 19 may be manifested in the form of Vatakaphajjwar during the month of vaishakha, Jyestha, Asadha and Shravan, as these are vaat aggravating periods. During these periods fatality may increase as prognosis of vatakaphajjwar is worse than

simple kaphajjwar. Due to mismanagement simple kaphajjwar may be converted to vishamjwar or severe sannipatjwar. Specific symptoms as well as management have been described in the literature. Covid 19 also may be manifested as Rajyakshma because it is also having the similar features of covid 19.

Most mimicking feature of Covid-19

Covid 19 mostly started as flu like symptom so there is a big fear running among the society by the onset of symptoms like running nose, sore throat, difficulty in breathing, coughing etc. so it is essential to know the common Ayurvedic remedy for these ailments. All these features have been described in Ayurveda as pratishyaay. The initial treatment for this is warm management (take warm water, take bath in warm water, avoid direct air exposure, cold food item). Adrak (Gingiber officinale) should be boiled along with tea. Due to this warm management pratishyaay will convert to pakwavastha in which patient will feel some relief, runny nose stopped and feel a thick cough in throat. In this situation there is a need for removal of cough by shirovirechannasya. As a home remedy, applying mustard oil in the nostril along with warm saline gargling with a pinch of pepper powder may be helpful. Chew 2-4 marich or lavang after taking diet. Simple ayurvedic drugs like laxmivilas/ mahalaxmivilasras, sitopaladichurna with honey and ghee are very effective. If someone feeling discomfort during breathing ½ spoon cow ghee with little saindhavlan + rock salt/ black salt along with hot water should be taken after diet.

Preventive Measures

The specific guidelines of janpadhvasa or Maarak as well as the advice of Sadvritta should be considered as preventive measures. Sadvritta is having a very vast meaning which includes Dincharya (daily regimen), Ritucharya (seasonal regimen), obeying the rules for natural urge etc. We saw that as per literature, due to unrighteous acts of human beings seasons have been

altered so it is very difficult to follow the exact seasonal regimen needed for the present time. Again the advised ritucharya is for healthy individuals only. People having some kind of health issue may need specific ritucharya. So preferably it should be followed as per the advice of Ayurveda vaidya.

Specific guidelines of janpadhvansa or Maarak with probable justification^{42,43}

- Chanting of rakshamantra like gayatri mantra or other successful mantra as per guideline of spiritual belief which may be helpful to maintain the inner peace and pacify anxiety. One religious chanting has been described in Sushrut samhita to save from all microorganisms⁵.
- Yagyan/ Havan karma should be done in proper way which may be having antimicrobial action.
- Fumigation of room with rakshaghna drugs like swetasarsap (yellow mustard seed), neempatra, cow ghee (and saindhavlan⁴⁴).
- Meditation should be done regularly which has a great benefit to keep the mind calm and stable during this pandemic outbreak.
- Follow the path of truthfulness- it is directly related with isolation of covid 19 patients, along with this it has several roles to control the pollution which is the ultimate cause of this pandemic outbreak.
- Show bhutedaya (compassion for the living beings)- during the pandemic outbreak it has also indirect role to maintain peace
- One should donate as per capability which is very essential to maintain the economy during this type of outbreak
- Devoutness towards the supreme soul is needed to follow the righteous path which is needed to recover from four climate changes.
- Following the sadvritta (good deeds) is essential to maintain immune power and peace in our mind as well as in society.

- Maintain the tranquility or peace is needed to maintain the government rules like lock down or social distancing which are essential to check the spread of infection
- Maintain the celibacy is needed to maintain the immunity power as per Ayurveda.
- Discussion on religious scripture is very essential to overcome from the root cause i.e. Adharma.

All these remedies are having a direct or indirect role to control the situation during a pandemic outbreak.

Some common jwaragna medicines and immune boosting medicines

- Medicines like Dashmoolkwatha (due to its sarvajwarhar action as mentioned in Sushrut samhita)⁴⁵, Amritarista (as per Bhaisajyaratnavali)⁴⁶, Sadangpaaniya (advised for jwarchikitsa in Charak samhita) may be given to all fever patients after achieving pakwavastha of it⁴⁷.
- Rasayan (immune boosting) drugs like Chyavanprash⁴⁸, Amla⁴⁹ and Giloy⁵⁰ etc. may be advised due to their immunomodulatory action, to all healthy individual to maintain their health.

DISCUSSION

Climate changes occur as a result of Adharma (following an unrighteous path by the people). Due to this climate change, similar types of doshasanchay (accumulation) occur in large numbers of people at a time. Further the microorganism (retainers of rakshas or pisacha) enters into humans who have left the path of truthiness and vitiate the accumulated doshas and cause a similar type of manifestation of disease. The same thing is happening in this pandemic outbreak of covid 19.

This understanding is essential to find out a probable solution for this problem. As dosh vitiation is an inevitable phenomenon for disease manifestation, it has been advised to treat the diseases as per their specific doshik

diagnosis. Apart from the specific treatment of the sufferer, guidelines given for preventive aspects are much beneficial to tackle the situation in the present scenario of this COVID-19 like pandemic outbreak as well as to normalize the climate changes occurred. The social and spiritual measures which have been described as a part of treatment are essential to cope with family distress, relationships, isolations, control anxiety, distress, pain, fear, uncertainty and rapid social and economic changes. In research it was found that people with deeper spirituality and social health have enhanced physical health and experience less physical symptoms of any disease. Spiritual well-being is always associated with less anxiety, depression or distress during difficult times, a pandemic outbreak can be one of those times. Sadvritta in Ayurveda which includes all physical, moral, social, psychological and spiritual conducts is must for all individuals to follow. In this way the gravity of the situation can be realized and spread of disease can be controlled effectively.

This results is only a hypothesis, it can guide us to find out a proper solution for COVID 19. It cannot tell us how far these guideline help us, unless proved practically. Separate study for each guideline should be conducted to evaluate their practical utility in present era. Then after getting fruitful results from each, complete protocol should be followed.

CONCLUSION

The article shows detail literature regarding concept of microorganisms, prevention, and control and treatment aspect of epidemic or pandemic diseases that have been described in Ayurveda There is need to propagate this complete knowledge of Ayurveda as soon as possible so that this world may overcome from this grim situation now and in future also. Though it is difficult to draw any conclusion regarding the Ayurvedic treatment aspect of disease COVID-19, without a trial it may not be irrelevant also because, whatever written in Ayurveda are coming true in modern parameters. As it will take

time for any confirmed treatment or vaccine it is time to take serious proper trial regarding this to establish an appropriate treatment protocol for COVID-19. The important tools for preventions as prescribed in Ayurveda are equally helpful in present time also to tackle every situation during an epidemic outbreak. Without preventive measures it will be difficult to treat a large number of patients at a time and the health system may break down. To check the contamination steps like lock down, home isolation, quarantine etc. taken by the government is essential but it needs more to stop this outbreak completely. It is also a best opportunity for India to come forward and show the value of Indian medicinal knowledge to the entire world through Ayurveda.

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