

## UNDERSTANDING EPIDEMICS WITH SPECIAL REFERENCE TO COVID-19: A REVIEW OF THE AYURVEDIC CLASSICS

Dr. Dilip Kr. Goswami\*

Guwahati: Assam India.

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\*Corresponding author: Dr. Dilip Kr. Goswami

Guwahati: Assam India.

### ABSTRACT

The term "Epidemic" means "a sudden outbreak of infectious disease that spreads rapidly through the population, affecting a large proportion of people". Similarly "Pandemic" is a technical word used to indicate "an epidemic so widely spread that vast number of people in different countries are affected". These two words cause panic among the common citizen, cause extra ordinary alertness in the administration and raise brain storming situation among the researchers and scientists. In such situations the health workers have to stand as the soldiers to fight for the administration. They have to forget food, rest and sleep. Public co-operation is must to overcome such situations successfully. "COVID-19" the situation caused by the dreadful virus "CORONA" is now standing as the great challenge for the human society. Life of the citizen is in danger irrespective of age,sex,religion, caste , financial condition and profession. Starting from China it has already caused havoc in the developed countries and now affecting India. Looking back to the ancient medical system, specially of India, Ayurveda, it is observed that, there are some facts in Charaka Samhita, Susruta Samhita, Ashtanga Hridaya and Ashtanga Sangraha that have similarity with the present situations viz.endemic and pandemic. The facts mentioned in these ancient books regarding aetiology, diagnosis, treatment and prevention can also be taken in consideration for application in present situation also. A discussion on the descriptions of the ancient Ayurvedic scholars with special reference to the epidemic/pandemic like situations, aetiology, diagnosis, treatment prevention etc. is considered to have great importance in present situation.

**KEYWORDS:** COVID -19, CORONA, Endemic, Pandemic, Ayurveda.

### INTRODUCTION

Infection epidemic diseases, pandemic diseases are some situations that create panic among the people . In these situations the human society gets affected with same type of enemies (disease causing agents), suffer from same types of signs and symptoms and even face the fatal outcome irrespective of age, sex, religion, profession ,economic status and other factors . Simultaneously with the suffering of the common people the administration becomes bound to apply all efforts to save the lives of the citizens. In this situation the health workers have to serve as army by facing all dangers.

The present human society is also facing one such situation "COVID-19" due to infection of the dreadful "CORONA VIRUS". The situation is gradually going to establish itself as pandemic. Already a good number of countries suffered and gradually the virus is expanding it's activity to the other country. Even with tireless research no remedy for the virus is found till now. Hence

it is felt that, a search in the Ancient literatures on health science may show some fruitful path in this direction.

**AIM OF THE STUDY:** This a literary study aimed to

(1) Search whether there is any concept of disease that can be co-related with infectious disease/ epidemic disease/pandemic disease . If such concept is there then what opinion is given by the experts about the eatiological factors, signs -symptoms, treatment and preventive measures.

(2) Can the opinions of the ancient scholars be applied in present situation to deal with the CORONA VIRUS infection or not and if possible then on what basis?

## MATERIALS AND METHODS

The main treaties of Ayurveda - Charaka Samhita, Susruta Samhita, Ashtanga Hridaya and Ashtanga Sangraha were studied thoroughly and the findings related with the aims of the study were collected, compiled and arranged as a scientific article.

## OBSERVATION AND RESULT

The present study reflected the following facts related with the present situation faced by the human society due to effect of the infectious diseases/ epidemics / endemics –

**(A)The Situation/Disease:** - The father of Medicine “Charaka” in his famous book “Charaka Samhita” mentions a situation /disease that can be co-related with the epidemics with the nomenclature “JANAPAD DHWANGSA” when a huge number of people , a village/ town/ city/ district/ state/ country/ continent become affected with a group of similar signs and symptoms even without evidence of violating the rules of health and hygiene . Signs and symptoms of the situation is not mentioned in this reference. To characterize the situation only “death of a huge number of people after suffering from same signs and symptoms” is mentioned.<sup>[1]</sup>

Susruta, the father of Surgery ,though not mentioned any name that can be co-related with epidemic directly, then also he mentions some situations of poisoning of grass, water, soil, food and air.<sup>[2]</sup> Among these 5 factors, in present situation, poisoning of air (as the virus spreads through air also) and soil (since the virus can spread through all things like cloth, mats, skin contact etc.) can be considered responsible.<sup>[3]</sup> It is to be mentioned here that, the signs and symptoms mentioned by Susruta in this context are not directly similar with the manifestations of present CORONA virus infection .

**(B)Aetiological Factors:** - Charaka mentions 4 factors – poisoned /contaminated/polluted Vayu (air), Jala (water), Desha (soil) and Kala (time) responsible for the condition “JANAPAD DHWANGSA”<sup>[4]</sup>.

### (C) Signs and Symptoms

1)Suffering of a huge population from a group of serious type of signs and symptoms at a time irrespective of age ,sex, religion, social status, economic status etc. is the principal criteria of this type of situation (JANAPAD DHWANGSA).<sup>[5]</sup>

2)The signs and symptoms of COVID-19 has similarity with the signs and symptoms of poisoned (polluted ) air . Susruta says that, in exposure to poisoned air the person develops cough (Kas), sneez and rhinorrhoea (Pratishyaya), headache (Shiroruja) and serious type of eye problems (Tibra Nayanamaya).<sup>[6]</sup>

### (D) Treatment

(1)Rasayana prayoga (Rejuvenation therapy)<sup>[7]</sup>

(2)Maintenance of mental health by following the codes of good conduct <sup>[8]</sup>

(3)Susruta advise purification of air in the state of poisoning with poisonous air by fogging with the smoke of Laksha (Shell lac), Haridra (*Curcuma Longa*), Ativisha (*Aconitum Heterophyllum*), Abhaya (*Terminalia Chebula*), Harenuka (*Piper Aurantiacum*), Eladala (*Amomum Aromaticum*), Kustha(*Saussurea Lappa*) and Priyangu(*Aglaia Roxburghianna*).<sup>[9]</sup>

(4)Use of Godugdha(Cow’s milk), Ativisha kalkasiddha Ghrita(Ghee prepared with *Aconitum Heterophyllum*) are advised to use as pana(orally) and nasya(as nasal application) in the situation of exposure to poisonous smoke (Air).<sup>[10]</sup>

(5)For purification of poisonous air fogging can be done with the smoke of Jatu (Shell lac), Sarjarasa(*Mimosa Rubicaulis*), Ushira(*Vetiveria Zizanioides*) , Sarsapa (*Brassica Camprestris*), Patra (Tejapatra /Tamalpatra) (*Cinamomam Tamala*), Valaka (Hriver)(*Pavonia Odorata*), Vella (Bidanga/ Marich)(*Embelica Ribe s/Piper Nigrum*), Aruskara (Bhallatak)(*Semecarpus Anacardium*), Guggulu(*Balsamodendron Mukul*) , Arjunapuspa (*Terminalia Arjuna* flower) <sup>[11]</sup>

## DISCUSSION

From the observations the following points can be considered important

(1)Consideration of the concept of infectious/epidemic/pandemic diseases reflects that, Charaka has nicely described the situation “JANAPAD DHWANGSA”. This is a situation when a huge part of the population suffers from same manifestations irrespective of age, sex, religion, economic status, social status etc.

As Susruta mentions contaminated/polluted air can be considered as the prime factor of occurrence of such a situation when a huge number of population suffer from same signs and symptoms related with respiratory system .

Hence by definition the present situation “COVID-19” can be considered as “JANAPAD DHWANGSA” mentioned by Charaka and by manifestation “DUSHITA VAYU LAKSHANA” mentioned by Susruta.

(2)Consideration of the aetiological factors it can be said that, Charaka has rightly mentioned the 4 essential and unavoidable things Air, Water, Soil and Time. The role of air, water and soil as source /carrier of infectious organisms is well known and easily explainable. Scientists have already identified and established the role of these 3 as source/ carrier of certain diseases. The role of time in outbreak/spread of epidemic diseases is difficult to explain. But it can be said that, sometimes the

eatiological factor, vector etc. of certain widespread diseases becomes difficult to explain. So there may be some influence of unknown factors which can be considered as “Kalaprabhava (Time Influenced Outbreak/Spread)”. Depending upon the available informations it can be said that, “COVID-19” outbreak and spread may be due to “DUSHITA VAYU (CONTAMINATED/POLLUTED AIR)” triggered by favorable time. To understand the situation it can be said that, CORONA virus caused pollution of air. It also spreaded with the air. Travelling with the air some of them contaminated other essential goods like cloth, matel etc. and caused harm to the user of these substances.

(3) Charaka has mentioned nothing about the signs and symptoms of JANAPAD DHWANGSA. He has only mentioned the character of the situation. It indicates that, he tried to make it understand that, any disease when affects a huge population at a time is alarming and should be dealt with seriousness by studying about the 4 probable factors viz. air, water, soil and time and accordingly remedial measures to be taken.

The signs and symptoms of effect of polluted/contaminated air as described by Susruta are closely similar with the manifestation of “COVID -19”.

(4)On the prevention and treatment Charaka advised to follow 3 modules – (i)Yuktivyapashraya (application of medicine with justification) – specially rejuvenation is advised as in this situation the prime need of the individuals is to maintain/increase resistance . Resistance can be increased by diet, medicine and therapeutic regimen. (ii)Daivavyapashraya (following religious rituals) – prayer, offering to the Gods, service to the respectable persons etc. (iii)Satwavajaya (self control – maintenance of mental peace and harmony) – mental health is an important factor to maintain physical health as there is close relation between the body and the mind . Any one of them, if looses balance, the other gets affected . Hence stress is given on maintenance of mental health by exercising good conducts like speaking truth, discussing good and beneficial things, avoiding anxiety, anger etc. In the present context of CORONA VIRUS infection it is difficult to comment on the utility of Daivavyapashraya chikitsa but the Yuktivyapashraya and Satwavajaya has definit role.

(5) Charaka has not mentioned anything about air purification as treatment/preventive measure of “DUSHITA VAYU (contaminated/polluted air)” . But Susruta and Bagbhata have stressed on air purification by fogging with the smoke of some substances that have the capacity to destroy the organisms (jantughna- can kill bacteria, virus and other living organisms).

(6)Since there is involvement of air in outbreak of the epidemics/pandemics hence prior importance can be given on air purification which will prevent the spread of the disease . In most of the situations it becomes difficult to identify the causative organism. Hence a specific

measure cannot be taken at the beginning. In such situations use of preparations that can increase the general resistance of the individuals can be considered as justified.

## SUMMARY AND CONCLUSION

As summary it can be said that,

(1)During the ancient times also there were some dreadful and fatal situations when a huge number of population suffered from diseases manifested with same signs and symptoms and the health service providers were to act in these situations as guides and front line fighters. They were to make the planning for prevention and treatment of such situations. Charaka and Susruta samhita specially give guideline in this context.

(2)In the situation of outbreak of the diseases affecting a huge population maintenance of individual health is important For the purpose rules regarding diet, behavior and medicine are to be followed strictly.

(3)Mass fogging with use of smoke of jantughna drugs is important both for prevention and control of the disease.

As conclusion it can be stated that, in the CORONA virus infection, since it is standing as a challenge for the human society, some study can be conducted by taking the reference from the Ayurvedic classics which may help to get a fruitful solution.

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