



# ‘CONCEPT OF EPIDEMIC IN AYURVEDA (JANAPADADHWANSA) AND COVID-19’

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## ABSTRACT

Ayurveda is the ancient life science, which deals with the study of life. When infectious diseases are being spreading through human populations across a large region or even worldwide, then it is known as epidemic. An epidemic over a wide geographic area and affecting a large proportion is called a pandemic. It can be correlated to the *Janapadadhwansa* (destruction of community) in Ayurveda. The novel corona virus 2019 named as (nCoV- 2019), a bull for *Janapadadhwansa* is highly communicable which has created a deadly pandemic situation in the world. Since December 2019, the virus has turned the globe by killing about 2 lakh individuals accounting from all around the world. Till now there is nothing which can stop this virus to turn out to *Janapadadhwansa* until we strictly follow the hygiene laws. The corona viruses which were broken before, in earlier decades were not that fatal. But this virus is much more novel and infectious. *Janapadadhwansa* can be correlated with covid-19. Epidemic in *Ayurved* (*Janapadadhwansa*) is described by Acharya Charak and Sushruta. Aetiology of *Janapadadhwansa* (destruction of community) are *adhrama* (sin), derangement of the air, water, land, season. Ayurveda recommends purification therapy such as emesis, purgation, enema etc., proper rejuvenation, atonement and enchanting of mantras. In Ayurveda epidemic diseases has been mentioned in context of *Janopadadhwamsa* (destruction of community). So for prevention of such condition we can adopt the foot note of Ayurveda mentioned in context of *Janopadadhwamsa*.

**Keywords:** Communicable disease, Coronavirus disease 2019, Pandemic

## INTRODUCTION:

Concept of *Janapadadhwansa* (destruction of community) is described by *Charak* that can be approximately compared with epidemic and pandemic and its several variants based on the degree and intensity of the event <sup>[1]</sup>. Concurrent destruction of community by very single disease despite of the individuals counting from varying background, having different constitution, diet, physique, vitality, age and habits is called epidemic disease or *Janapadadhwansain* Ayurveda <sup>[2]</sup>. The major factors which tends it to infect mass population are deranged *Vayu*(air), *Jala*(water), *Desha*(land) and *Kala*(seasons) <sup>[3]</sup>. *Sushruta* explains epidemic as a *Janapada/ Mahamar*. <sup>[4]</sup> He described parameters of soil, air, food and water contamination in *Kalpasthan* <sup>[5]</sup>. A season manifesting uncommon and strange features, affect or retard characteristics properties of water and vegetables, which causes dreadful epidemics in the globe <sup>[6]</sup>. Some diseases arise, which cannot be control by human intelligence is explained under the heading of *Adidaivika Bala Pravritta Vyadhi* <sup>[7]</sup>. Terms like *Sansargaja/Upasargaja* (communicable) is mentioned which indicate

that few diseases can be transmitted by respiration or air from infected person to healthy person as a contagious disease<sup>[8]</sup>.

CORONA VIRUS DISEASE 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). Acute respiratory distress syndrome (ARDS) and shock were defined according to the interim guidance of W.H.O for novel corona virus.<sup>[9]</sup> Since December 2019 to march 2020 the World Health Organisation (WHO) has reported that 416,686 and 18,589 death case have been confirmed worldwide, and it has spread to 197 countries (WHO, 2020a).<sup>[10]</sup> The virus detected is the most fatal among its family with more novel and severe contagious in nature. The world health organization (W.H.O) declared the 2019-20 Corona virus outbreaks a public health emergency of international concern (PHEIC) in many countries. Corona viruses are enveloped non-segmented positive sense RNA viruses belonging to the family Corona viridae and the order Nidovirales<sup>[11]</sup>. It is transmitted from one individual to other by close physical contact. The incubation period is 14 days after which patient's shows symptoms include fever (85-90%), cough (65-70%), fatigue (35-40%), and sputum production (30-35%), shortness of breath (15-20%). No currently specific treatment or vaccine is currently available but supportive treatment such as isolate the patient and send PCR test early, fluid sparing resuscitation, empiric antibiotics and mechanical ventilation for ADRS etc.

### AETIOLOGY/ PATHOGENESIS:

*Charak* has explained the etiological factors are divided into two different categories, such as *Niyata Hetu* and *Aniyata Hetu*. The *Niyata Hetu*, is a set of unavoidable phenomenon that affect commonly to all the individuals in a particular community and includes the detrimental effect of the sun, the moon, planets and stars causing the cyclones landslides, flood, earthquake, and tsunami etc. The *Aniyata Hetu* is the inexorable destroys condition that includes *Prajnaparadha* (accidents, violence), *Shastrajaprabhavaja* (wars-nuclear weapons, missiles etc), *Abhisyangaja* (due to pathogens, evil forces and unhygienic factors), *Abhisapaja* (curse). Besides affecting the individuals these factors are also affect the entire community resulting in widespread disease causation known as *Janapadodhwansa Rogas* (destruction of community)<sup>[12]</sup>.

### CHARACTERISTICS OF POLLUTED AIR:

It plays a major role in the wide spreading of diseases. It doesn't show compliance with seasons, quiet or violently blowing, immensely rough, extremely hot or cold, exceedingly dry or humid, devilishly clamorous, puffing from different directions and contacting with each other incorporated with unpleasant odour, moisture, sand, dust and smoke<sup>[13]</sup>. According to *Sushrut*, if an air contaminated by poisonous gases in environment getting more and more toxic and causes many bad effects on health of people. It causes asthma, bronchitis and heart diseases also. And hence if droplets of covid-19 patients spread in environment and healthy people comes in contact with those surroundings he also suffers from same symptoms.<sup>[14]</sup>

### CHARACTERISTICS OF POLLUTED WATER:

Water seems to be unnatural in smell, colour, taste and touch, distinct stickiness, the source lacking of aquatic fauna and drying of bodies without the normal attributes of it<sup>[15]</sup>. According to *Sushrut* water pollution due to domestic waster, Fertilizer, harmful microorganisms due to drinking or consuming polluted water it causes typhoid, cholera and various other diseases<sup>[16]</sup>. The same sign and symptoms show the patients suffering from Covid-19.

### CHARACTERISTICS OF POLLUTED LAND:

Having uncommon odour tastes and touch, that which is extremely damp and plenty of locusts, beasts, serpents etc. Where cries of birds and dogs are heard, where the people's virtues like religion, truth, modesty, custom, character have either declined or been given up, where the sun the moon and the stars are frequently covered by dry clouds. Sometimes seems to be seized by ghosts and ghouls. Soil can be compared with "*Desha*" or food available to that particular area<sup>[17]</sup>. If food poisoning occurring that particular region Acharya *Sushrut* said that patients feels digestive problems such as vomiting, Diarrhoea. Patients suffering from covid-19 disease and live in it without informing<sup>[18]</sup>.

## CHARACTERISTICS OF POLLUTED TIME/ SEASON:

If season exhibiting the attributes that are opposite or reaching their extreme, either excessive or deficient (e.g. early rains, too little rain, excessive hot summers or cold winters etc. All the four seasons are important to be in progressive order because of the degree of their indispensability<sup>[19]</sup>.

*Sushruta* explained water and vegetables retain their natural properties when the seasons are natural and do not exhibit contrary features and they then tend to increase the appetite vitality strength and power of the human system<sup>[20]</sup>.

## CLINICAL FEATURES:

According to Ayurveda, sometimes a city is disinfected by a course, sin, sin by demons conjured by incantation. Even can pollens of poisonous flowers glided by the winds conquer a town or city and produce a sort of epidemic cough, asthma, catarrh, fever, irrespective of all constitutional peculiarities<sup>[21]</sup>.

While considering the present situation of Covid-19 have some similar features described in classical Ayurvedic texts, which are fever, cough and shortness of breath. Some other symptoms like fatigue, muscle pain, diarrhoea, sore throat, abdominal pain etc<sup>[22]</sup>.

## MATERIALS AND METHODOLOGY:

Review of classical *Ayurvedic* literature along with contemporary text books, journals, published articles, internet sources were referred. Information was collected from ministry of health and family welfare Govt. of India WHO etc.

## RESULT:

Table 1 showing similarities between Janapadadwansa and Covid-19

Sl no.	Factors	<i>Janapadadwansa</i>	Covid-19
1	Characteristics	Destruction of community	Destruction of community
2	Mode of transmission	As a communicable disease	As a communicable disease
3	Clinical features	cough, asthma, catarrh, fever,	fever, cough and shortness of breath
4	Prevention	Avoid from cause i.e. physical contact	Social distancing
5	Treatment	Symptomatic treatment	Symptomatic treatment

## DISCUSSION:

*Janapadadwansa* (destruction of community) may be spread from person to person. Considering the opinion of *Sushrut*, few modes of transmission has been described like, *Gatrasansparsat* (physical contact), *Nihsvasat* (Droplet infection), *Sahabhajnata* (eating food with diseased person), *Sahasayyananat* (sitting or sleeping with infected person), *Vastamalyanulepanat* (using clothes, garlands and cosmetics of patients)<sup>[23]</sup>. This concept is very much relevant today. Now covid-19 spreads through droplets spread when an infected person sneezes or coughs.

## PREVENTION / TREATMENT:

For cure of any disease five elimination therapy (emesis, purgation, *niruha* enema, *anuvasana* enema and nasal drops) are evaluated to be the best<sup>[24]</sup>. Appropriate use of *RasayanaChikitsa* (immune modulator drug) and nurturing of body by medical herbs are prescribed. Truthfulness, humanitarian work, worship of



god, charity, sacrifices and the right deeds is recommended<sup>[25]</sup>. Other than above *Sushruta* explained in such cases migration to a healthy or unaffected locality, performance of rites of pacification, atonement (wearing of prophylactic gems and drugs), recitation of mantras, liberation of clarified butter cast into the sacrificial fire, offering to the Gods, celebration of sacrificial ceremonies, obeisance with clasped palms to the Gods, practice of penances, self-control and charity, tranquillity, prophylactic protection of one self and seeking one's own good, residing in a wholesome country<sup>[26]</sup>. The spreading of infection of Covid-19 can be prevented by frequently hand wash with soap and water for 40 sec or 70% alcohol based hand rub. Maintain social distancing of at least 1 metre between two persons, Avoid going to crowd places, attend any event, prayers and parties. Avoid touching eyes, nose and mouth. A person should cover his/her mouth nose with handkerchief or tissues while coughing or sneezing<sup>[27]</sup>.

## CONCLUSION:

In Ayurveda epidemic diseases has been mentioned in context of *Janopadadhwamsa* (destruction of community). Present condition like Covid-19 can be partially correlated to *Janopadadhwamsa* as it is affecting a large part of population. Both have same characteristics, clinical features, mode of transmission. So for prevention of such condition we can adopt the concept of Ayurveda mentioned in context of *Janopadadhwamsa*.

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