

## "Literary review on *Janapadodhvans* with special reference to epidemic and pandemic."

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### ABSTRACT-

Epidemics means rapid spread of disease to a large number of people in a given population within a short period of time. An epidemic may be restricted to one location; however, if it spreads to other countries or continents and affects a substantial number of people, it may be termed a pandemic. The terms "epidemic" and "outbreak" have often been used interchange. In *ayurvedic* classic *Samhita* this term epidemic is described under context of *Janapadodhvans*. Commentator *chakrapani* has explained two types of *hetu*(causative factor)for disease in the context of clarification of *Janapadodhvans adhyaya* after *Trividhkukshi adhyaya*. First is *asadharan hetu i.e .common* morbidity factors among the individuals with dissimilar constitution diet(*aahar*),physique(*Bala*),vitality (*saatmya*),mental health (*mana*)and age(*aayu*). Second *hetu* is common factors

which get affected result in simultaneous outbreak of diseases having similar symptoms that destroy communities called as *sadharan hetu*. These common factors are *vayu*(air)*udak* water) *desh* (land) and *kala* (season). *Yuddha*(war), Nuclear bomb, biological war etc. are manmade calamities are also causative factors for *Janapadodhvans*. Considering above concepts, a detailed review is done from *Ayurvedic* classics and possible framework in regard to concept of epidemic pandemic and preventive measures in *Ayurveda*.

**KEY WORDS** - *Janapadodhvans*, *adharm*, *rasayana*, epidemic in *Ayurveda*

### INTRODUCTION-

*Janapadodhvansa* literally means destruction or annihilation of communities or settlements<sup>1</sup>. Epidemics and outbreaks of highly communicable diseases have blighted human being since time immemorial. In *Ayurveda* *Acharya Sushruta* and *Charka* recorded

their works on *aupasargika roga*<sup>2</sup> and *janapadodhvansa*<sup>3</sup> respectively, according special importance to the topic. *Acharya Charka* described out the causative factors of *janapadodhvansa* (epidemics), characteristics of vitiated factors and remedial measures to treat the conditions in the third chapter of *vimansthana as janapadodhvarsaniya adhyaya*.<sup>4</sup> The social hygiene aspect is also mentioned in this chapter. *Acharya Sushruta* refers to the concept of *janapadodhvansa* while discussing *ritucharya* (seasonal regimen) under the title *Maraka*.<sup>5</sup> In *Ashtangsangraha*, the concept of *janapadodhvansa* was described under the chapter *viruddhanna vijananiyam*.<sup>6</sup> A **pandemic** (from Greek word- pan, "all" and demos, "people") is an epidemic of an infectious disease that has spread across a large region, for instance multiple continents or worldwide, affecting a substantial number of people.<sup>7</sup> Now a day's Coronaviruses (CoV) are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). A new strain of coronavirus (SARS-CoV-2) causes Coronavirus disease 2019, or COVID-19, which was declared a pandemic by the WHO on 11 March 2020.<sup>8</sup> so the current burning topic of epidemic is described in an *ayurvedic* point of view.

#### AIMS AND OBJECTIVES-

1. To disclose the concept of epidemic and pandemic in *Ayurveda*.

2. To discuss the preventive measures of epidemics, explain in *Ayurveda*.

#### MATERIALS AND METHODS:

As this is review article, the concept is thoroughly explained with the help of *Ayurvedic Samhita* like *charaksamhita*, *sushrutsamhita*, *ashtangsamgraha* and also recent update from website.

#### DISCUSSION-

##### Causes of *janapadodhvansa*:

The primary cause for vitiation of this factors is *Adharma* (unrighteousness activities). *Astkarma* (Sins of the present life or the misdeeds of the past life) also are at the root of vitiation of all these factors and the source of this is intellectual error (*prajnaparadha*).<sup>9</sup> Thus when the reigning heads of countries, cities, trade guilds etc. govern the people irresponsibly by transgressing the virtuous path, then their officers, subordinates and under-subordinates, people of the city and community and traders deviate from their duties as well and propagate such unrighteous acts further. Their sinful acts perforce cause the righteous acts to disappear. Because of the disappearance of righteous acts, even the Gods desert the people living in such places. This causes seasons to get impaired in these places. There is no rain in time, or never at all, or abnormal rain occurs; the air does not blow properly; the land is afflicted, the water reservoirs dry up, and herbs lose their true properties and suffer deterioration. As a consequence, the people perish as the result of infectious contact or ingestion of polluted food and water.<sup>10</sup> Polluted air, water, land and seasons are basic factors for *janapadodhvansa*.

### Characteristics of air (Vayu) pollution<sup>11</sup>-

1. the air that is not in conformity with season [*visham*]
2. Totally calm or violently blow [*Atichal*]
3. Exceedingly rough [*Atiparush*]
4. Intensely cold, intensely hot, excessive hot [*Atisheet,Ati-ushna*]
5. excessive humid [*Atiabhisandhi*]
6. Terribly clamorous [*Atibhairav*]
7. Blowing from contrary direction and clashing with each other [*Pratihataraspargati*].
8. associated with bad odour, moisture, dust, sand and smoke [*Asatmyagandha,bashpa,sikata,panshudhumophat*]

### Characteristics of polluted water(jala)<sup>12</sup>

1. water that does not seem normal in smell, colour, taste and touch [*Atyarthvikrutgandha, varna, sparsha,*].
2. Excessive stickiness [*Kledbahula*]
3. devoid of aquatic animals and birds [*upakrantjalacharavihangam* ].
4. Drying up of water reservoir [*Upakshinjaleshaya*].
5. Without pleasantness [*Apritikar*]
6. the water devoid of normal attributes indicates polluted water [*Apagatgunam*].

### Characteristics of polluted land<sup>13</sup>

1. Any land having abnormal colour, odour, taste and touch [*Vikrutgandha,varna,rasa,sparsha* ].
2. Abundance of serpents, beasts, mosquitoes, locusts, flies, mice, birds and animals [*Sarisrupvyalmashakshalabhmaks hikamushakkoluetcbahula*].

3. where water reservoir always alters and are overflowing [*udirnasalilashayam*] frequent exposure to meteorite, thunderbolts and earthquake [*pratatulakatnirghatbhumikampa*]
4. where nature is full of menacing sound sights [*atibhayarupam*]
5. where sun, moon and stars are frequently covered by dry, grey cloud. [*Rukshaaarunabhrajalsanvritam aarkachandratarak*]
6. general atmosphere is of constant confusion [*guhyacharitamiiivaakranditam*]

### Characteristics of polluted season(kala):<sup>14</sup>

What time is said to be unwholesome if it exhibits characteristics that are opposite to normal or exhibit excessive or deficient characteristics [*kalamlingaviparitamalingamatilingamhin lingam*] (e.g. early rain, too little rain, excessive hot summer or cold winter, etc)

These four environmental factors can be considered the types that cause epidemics. In *Sushruta Samhita Acharya* described *marak vyadhi* under context of *Rutucharya Adhyaya*. Acharya explain all the hetu(causes) which are similar to *charakacharya*. *Shushrutcharya* explain new concept that; if *rutu* is in *avyapanna* state (Ordinary state of season), there is situation of epidemic due to *adharma*. Due to inhalation of *vishyukta vayu* (poisonous air) peoples are affected with symptoms like *kasa*(cough), *shwas* (difficulty in breathing), *shiroruja* (headache) *jwara*(pyrexia), *vaman* (vomiting).<sup>15</sup>

### Mode of transmission of communicable diseases according to Ayurveda

*Acharya Sushruta*, one of the proponents of *Ayurveda*, has depicted different modes of communicable disease transmission in his classical treatise *Sushrut Samhita*.<sup>16</sup> He says by physical contact (*Gatrasansparshat*), exhaled air (*Nishvasat*), eating with others in same plate (*Sahabhojanata*), sharing a bed (*Sahasayyanaccapi*), using clothes, garlands, and paste (*Vastramalyanulepanat*) infectious diseases spread from person to person. *Kushta*, *jwara* (pyrexia), *shosh* (pulmonary consumption), *netrabhishynda* (conjunctivitis) and other *aupsargika* diseases (incidental to influences of malignant planet or due to the effects of impious deeds) are communicated from one person to another.<sup>17</sup> Commentator *Gaydas* mention the *aupsargik roga* are caused due to *Adharma*.<sup>18</sup>

These concepts are very much relevant today. There are several changes that may occur in an infectious agent that may trigger an epidemic. The conditions which govern the outbreak of epidemics include infected food supplies such as contaminated drinking water and the migration of populations of certain animals, such as rats or mosquitoes, which can act as disease vectors. Certain epidemics occur at certain seasons. For example, whooping-cough occurs in spring, whereas measles produces two epidemics, one in winter and one in March. Influenza, the common cold, and other infections of the upper respiratory tract, such as sore throat, occur predominantly in the winter<sup>19</sup>. These all

factors are described by *Acharya Charka* and *Sushruta*.

### Preventive measures for epidemics according to Ayurveda

Well in *Ayurveda* main *chikitsa* (treatment) of any *vyadhi* is *nidanparivarjan*<sup>20</sup>. It means. factors which are responsible for generating disease is to avoid their consumption is the prime factor for prevention.

1. As per *Acharya Sushruta* we have to maintain social distancing or avoiding close contact with anyone showing symptoms of respiratory illness such as coughing and sneezing [*gatra –asparsh* socially], covering mouth and nose when coughing and sneezing or use mask on face [*anishwas*], do not share anything with others, do not go to social places otherwise it is important in covid-19 pandemic<sup>21</sup> in today's era these important preventive measures are discussed in *Ayurveda*.
2. Truthfulness, compassion for living beings, charity, sacrifices, worship of god, observance of right conduct, tranquillity, prophylactic protection of oneself and seeking one's own good, residing in a wholesome country, service to those observing *brahmacharya* (celibacy) and following it, discussion of religious scriptures, constant association with the righteous, the well disposed and those who are approved by the elders- all this with a view to protecting life has been termed 'medicine'.<sup>22</sup>
3. *Dinacharya* (daily regimens) that should be followed by a person for healthy living. The tenets of personal hygiene, oral hygiene and hygiene of sense organs should be maintain

through the certain ayurvedic procedures to preserve health like *abhyanga* (massage), *dhumapana* (inhalation of smoke/vapours), *nasya* (nasal errhines), *kavala* and *gandusha* (methods of gargling), *karnapurana* (applying oil in ears), *anjana* (collyrium) etc<sup>23</sup>

4. *Rutucharya* (seasonal regimen) - seasonal regimen of diet and lifestyle for preservation of health. The year is divided into seasons based upon the changes in environmental conditions, temperature, day-night cycle and circadian rhythm. Being an integral unit of the nature, these seasonal changes in nature affect human physiology too. Therefore, one must follow the specific regimen for maintaining the equilibrium of body components in harmony with nature. The seasonal regimen is designed based on changes in the dosha, bala (strength), and agni (digestive power)<sup>24</sup>.

#### **Prophylaxis treatment for epidemics in Ayurveda:**

1. one need not suffer from diseases provided they are assured of proper medicaments which are already collected and processed.
2. *Panchakarma* treatment (five elimination therapies viz *vaman*, *virechan*, *niruha*, *anuvāsana* and *nasya*) are considered the best.
3. The proper use of *rasayanachikitsa* (rejuvenation treatment) is recommended and maintenance of the body by means of medicinal herbs collected before the onset of epidemics is recommended. *Rasayana* is the means of obtaining

the best qualities of body cells and tissues and is able to defeat aging and disease.

All *rasayana* are *ojovardhaka* i.e. promoter of *ojas* or immune strength in the body, imparting *vyadhikshamatva* i.e. immunity in the body. By promotive treatment, one attains longevity, memory, intelligence, freedom from illness, youthfulness, excellence of lustre, complexion and voice, optimum strength of physique and sense organs, perfection in deliberation, respectability and brilliance. *Rasayana* is the means of attaining excellent qualities of rasa etc. *dhatu* i.e. body cells and tissues<sup>25</sup>. Some examples of *rasayana* are *bramhrasayan*, *chavanprashavaleha*, *aamlakrasayan*<sup>26</sup>

#### **CONCLUSION:**

From above discussion we can conclude that in ancient era there was also epidemic and pandemic disease which explained as *Janapadodhvars*. In today's epidemic like covid 19 we should follow preventive measures described in *Ayurveda* and future epidemic will be prevented by following *ayurvedic* protocol for maintain healthy state.

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