



**A CRITICAL REVIEW ON ROLE OF AYURVEDA IN PREVENTION OF  
COMMUNICABLE DISEASES**

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**ABSTRACT**

Infectious or communicable diseases can be defined as an illness caused by another living agent, or its products, that can spread from one person to another, can cause emergency situation. Ayurveda has given practical explanation about the communicable diseases in various contexts which are applicable in day-to-day life in their prevention, and cure. The modes of transmission of the Communicable diseases, relative modes of prevention, and maintenance of health with *Dinacharya & Ritucharya* (daily practice & Seasonal practice) are well illustrated in classics. Various modes of transmission of the communicable diseases by Touch, Inhalation, Sharing Fomites, Polluted water, Air, Soil have been explained in Ayurveda along with the symptoms seen normally which follow cough, dyspnea, vomiting, rhinorrhoea, headache, fever etc. Infectious agents are plentiful, mutate rapidly, and can become resistant to drugs if not destroyed completely. Low vaccination rates, poor nutrition, age (young and elderly), and immunosuppression, Overcrowding, poor regional design and hygiene due to poverty, Polluted drinking water, rapid climate changes, and natural disasters, can lead to conditions that allow easier transmission of disease. The first and foremost aim of *Ayurveda* is Prevention of diseases and next is the cure of manifested diseases for which avoidance of the causative factors is the first line of management. There are minor diversions in the management of such infective conditions in Ayurveda such as *Sadvritta* (good conduct), *Rasayana* etc which can be effective method of prevention of communicable diseases.

**KEYWORDS:** *Janapadodhvansa, Sadvritta, Aupasargika vyadhi.*

**INTRODUCTION**

Due to advancement of science and research life span of human being has been increased but simultaneously threat of communicable disease is increasing day by day. Communicable disease.<sup>[1]</sup> spread from person to another or from an animal to a person. The spread often happens via air borne viruses or bacteria, but also through blood or other bodily fluids. It may also spread easily due to large population, crowd, unhygienic conditions and low immunological status of individual. H1N1 Influenza, Ebola virus are the recent example of such diseases. Because of its contagious nature, a large number of individuals are getting infected at the same time thus creating great strain over public health.

*Ayurveda* though being an ancient life science clearly mentions about such disease conditions. A detailed Chapter on *Janapadodhwansa*.<sup>[2]</sup> in *Charaka Samhita Vimansthana* Third Adhyaya explains epidemic disease and its etiological factors. In *Sushruta Samhita Kushtha Nidana Adhyaya*, there is a good description on mode of transfer of disease. They are called *Aupasargik Rogas* (Communicable diseases).<sup>[3]</sup> From these references we come to know that in ancient time also there were such epidemics. A detailed regimen for such diseases is also

described in *Charaka Samhita* as use of *Panchakarma* and *Rasayana* along with *Sadvrittapalana*.

The Communicable diseases, epidemics and pandemics have been explained in Ayurveda as *Aupasargika roga, Janapadodhvansa* and *Maraka* or *Janamara*. Along with the explanation, the preventive measures and the treatment of those occurred are also well explained in Classics. When a disease is very fast spreading and difficult to control, *Sthana Parityaga*<sup>[4]</sup> (leaving the place or staying in self isolation) has been explained in Ayurveda as a measure to prevent the healthy individuals from getting infected. Various measures of *Vayu Shuddhi, Jala Shodhana* etc have been well explained to prevent the spread of Air-borne and Water-borne diseases respectively in community level while for personal health protection and prevention, the use of *Rasayana*<sup>[5]</sup> (for upliftment of *Ojas*<sup>[6]</sup> and thus *Vyadhikshamatva*<sup>[7]</sup>), Concept of *Dinacharya*<sup>[8]</sup>, *Ratricharya, Ritucharya*<sup>[9]</sup>, *Sadvritta*<sup>[10]</sup>, *Swasthavritta, Adharaneeya vega* etc have been explained.

**MATERIAL AND METHODS**

1. This Literary review is endeavored to highlight and compare the Preventive aspect of communicable diseases

described in Ayurveda Classics and modern preventive measures.

### Literary Review

*Janapadodhvansa* refers to a similar scenario where a large population of a particular area is afflicted with similar set of symptoms and illness which is probably highly infectious or communicable. Contamination of *Vayu* (Air), *Jala* (Water), *Desha* (Soil or place) and *Kala* (Climatic changes/ seasonal) are considered as the very responsible factors for *Janapadodhvansa*. The main cause of *Janapadodhvansa* is said *Adharma*<sup>[11]</sup> which can be taken as a sin to self (*Pragnyaparadha*) (committing some mistakes with ones knowledge), *Vegasandharana* (controlling the natural urges), not following *Dinacharya*, *Ratricharya*, *Ritucharya*, *Sadvritta* etc) or to others (*Dashavidha papakarma* to other persons or animals or to the planet i.e. improper waste management leading to pollution and thus leading to various diseases.). Pertaining to the large number of casualties, Acharya Sushruta and Acharya Bhela termed *Janapadodhvansa* as *Maraka* and *Janamara* respectively. As a consequence of contamination of air, the symptoms like *Kasa*, *Swasa* (Respiratory symptoms), *Vamathu* (GI symptoms), *Pratishyaya* (Allergic symptoms) and *Jvara* (fever/hyperpyrexia) are explained by Acharya Sushruta.

As per modern science by ecological point of view disease can be defined as “a maladjustment of the human organism to the environment.” Or it can be simply defined as any deviation from normal functioning or state of complete physical or mental wellbeing.<sup>[12]</sup> While communicable disease is defined as an illness due to specific infectious agents or its toxic products capable of being directly or indirectly transmitted from man to man or animal to man,<sup>[13]</sup> Similar concept has been described in classical texts of *Ayurveda* as *Sankramak Roga* or *Aupasargik Vyadhi* by Sushruta.

**“Prasangat gatra sansparshaat nishwasat sahbhojanat Sahshyayayaashant vastramalyaanulepnat Kushthamjwarash shoshach netraabhishyandev ch Aupsargik rogasch sankramak itya annantaram”**  
*Su.ni.5/33,34*

It is defined as disease which transmits through direct contact between man to man or by contact through sneezing, sharing food, bed or any kind of ornaments and lepa.<sup>[14]</sup> Science of *Ayurveda* has been greatly evolved over the period in India. *Ayurveda* does not just encompass the knowledge of communicable and non-communicable diseases but also guides for their prevention and effective treatment by use of various drugs of plant and animal origin.

### Communicable diseases in classical texts of Ayurveda

In *Charaka Samhita* role of *Vayu*, *Udak*, *Desha* and *Kala* has been mentioned as triggering factors of disease and epidemics termed as *Janapadodhwansa*.

*Charaka* also described *Vishama Jwara* correlating to malaria in modern science which greatly related to the epidemics.<sup>[15]</sup>

*Sushruta* described diseases such as; *Kustha*, *Jwara* and *Shosha* are communicable and spreads through contaminated objects. The mode of diseases transmission may be *Prasnaga* including *Gatra Sansparsha*, *Ahar sevana* and sleeping with diseased person.<sup>[16]</sup>

### Pathological triggering of disease

*Charaka* described that *Rugnabala* plays important role towards the prevalence of communicable disease. *Charaka* believe that accumulation of causative factors like; vitiated *Doshas*, *Dushyas* along with depleted *Bala* enhance susceptibility towards the disease.<sup>[17]</sup> Later when concept of microbes emphasized in *Ayurveda* then it was believed that microorganism vitiated *Doshas* which affect *Dhatus* and leads diseases if is *Bala* depleted. *Ayurveda* emphasises on individual immunity which is mainly responsible of development of disease. Modern science also marks the importance of immunity mainly in respect of communicable diseases. Therefore, person with low immunity is prone for development of communicable disease such as COVID-19.

### The historical development of communicable diseases from Vedic kala

The ancient period of Indian Medical System empowered with lot of wisdom due to the presence of many great *saints*, however communicable disease not emphasized greatly in that time due to the lack of *Pratyaksha pramana*. Some descriptions on spreadable diseases were mentioned in *Vishnudharmottara Purana* and *Agni Purana* based on *Apratyaksha Agama*, *Anumana* and *yukti pramana*. *Agnipurana* have some description on *Roganashak Aushadi* and *ahar-vihar* i.e. conduct for the prevention of diseases that already exist.

As per *Vishnudharmottara Purana*, Lord *Dhanvantri* transferred his knowledge to common people and residents of forest. Lord *Dhanvantri* spread knowledge about diseases and their treatments as per *Ayurveda* and this all information served as resources for other Indian physician like *Sushruta*. As per textual evident of *Vedic* period the causes of disease related to the poor lifestyle habits, diversified eating habits and disturbing natural pattern of living.<sup>[18]</sup> Later, it was believed that diseases may be due to the some living micro-organism however their detailed description lacked. As per *Vishnudharmottara Purana* by Lord *Dhanvantri* more than 100 disease are due to the consumption of wrong food material and later this hypothesis correlated with concept of pathological microorganism.<sup>[19]</sup>

### Microbial consideration for diseases in Ayurveda

The ancient physician of *Ayurveda* described *Krimi* including parasites and worms. *Chakravarthy* identified many intestinal worms. However, the ancient text of *Ayurveda* does not involve clear description of round

worm, tape worm and thread worm. The development of early phase of *Ayurveda* was lacking use of equipment such as glass and microscope therefore physicians of these era were unable to justify whether invisible *Krimi* are microbes. The literature survey revealed that ancient *Ayurvedic* physicians were aware of the existence of microbes however they could not study about it in detail. Commentary of *Astanga Hrdaya* described by *Arunadatta* clarifies that pathogen are invisible to the human eye and therefore microscopic.<sup>[20]</sup>

*Sushruta Samhita* mentions that the pathogens are countless, and twenty categories are mentioned initially. In 4th *Adhyaya Kushthnidanadhyaya* of *Nidansthan*, *Aacharya Sushruta* have described *Aupasargik rogas* which are communicable diseases that spread through direct or indirect contact.<sup>[21]</sup> *Sushruta* further narrate that physical contact, eating with others, expired air, sexual contact, sharing clothes and touching infected objects leads spread of infectious diseases from person to person.

*Cakrapanidatta* the commentator of *Charaka Samhita* explain the nomenclature of pathogens those are accepted well traditionally.

*Bhela Samhita* offered different nomenclature of pathogens.

*Harita Samhita* provides nomenclature for pathogens which differ from others and listed only thirteen names.

#### Terms described for pathogens in *Ayurveda*

*Ayurveda* perspective on microorganisms need to be explored with great extent to acknowledge contribution of *Ayurveda* and its current applicability in medical field. When scientific evidence-based literature written then initial phase involve descriptions of major terms related to pathogens.

*Acharya Charaka* has described terms for *Krimi* (pathogens) as *Keshad*, *Lomad*, *Lomadwipa*, *Sauras*, *Audumbar*, *Jantumatra* (*Matruka*).<sup>[22]</sup>

*Acharya Sushruta* described terms as *Nakhad*, *Dantad*, *Kushthaja*, *Parisarpa*.<sup>[23]</sup>

#### Concept of communicable disease in modern science

Communicable diseases refer to diseases that can be transmitted and make people ill. They are caused by infective agents (pathogens), e.g. bacteria and viruses, which invade the body and multiply or release toxins to cause damages to normal body cells and their functions. In severe cases, they may lead to death. These infective agents can spread from a source of infection (e.g. patients, sick animals) to a person through various routes of transmission.

Crucial factors for the spread of communicable diseases include the infective agent, the source of infection, the mode of transmission and the host - the so-called „chain

of infection“. An infective agent is a microorganism (e.g. bacteria, viruses, fungi and parasite) that will cause an infection.

#### *Ayurvedic* Management of Communicable Diseases

The *Ayurvedic* treatment encompasses the equilibrium of *dosha* (body humors), *dhatua* (body tissue), *mala* (waste products), *indriya* (sense organ) and *mana* (mind). Basically *Ayurvedic* systems of medicine followed three types of treatment procedure like *yukti vyapaashrya* (rational treatment), *daivavyapaashrya* (spiritual treatment) and *satvavajaya chikitsa* (psycho-somatic treatment). Here rational treatment is more applicable because it comprises *shodhana* (*ayurvedic* cleansing therapy that is used to remove toxins from the body) and *shaman chikitsa* (*ayurvedic* medicines are used internally and externally to that reduce, suppress, and eliminate disease symptoms).

*Charaka* describes three different modalities viz. *apakarshana* (elimination therapy), *prakriti vighata* (breaking the pathogenesis of diseases) and *nidaana parivarjan* (avoid the diseases causing and aggravating factors) in management of micro and macro organisms tend to produce communicable diseases.<sup>[24]</sup> Some other *Ayurvedic* procedures and protocols like *dincharya* (daily regimen), *ritucharya* (seasonal regimen), *rasayan chikitsa* (rejuvenation therapy) and *achar rasayan* (behavioral therapy) also help to prevent various infectious diseases.<sup>[25]</sup>

#### “*Yeshananam mrutu samanyam samanyam n ch karmanam*”

Some diseases are incurable if *arishtalakshana* (fatal signs) are present, while others even without such signs are incurable because of certain *purvajanmakrut karma* (fatal past deeds). *Ayurveda* emphasizes on treatment of *sadhavyadhis* only. Thus treatment of those who don't show the fatal signs is mentioned in the following quotation.

#### “*Karmpanchvidhantesham bhaishjyamparamuchhyate Rasayanamvidhivat upyogah prashasyate*”

#### 1. *Karma Panchavidham* (Appropriate use of *Panchakarma*)

*Vaman*, *Virachan*, *Niruhabasti*, *anuvasanbasti* and *shirovirechanare panchakarma*<sup>[6]</sup> described by *Acharya Charaka* *Acharya Sushrut* and *Acharya Vagbhat* included *Raktmokshana* among *shodhanupkramas*<sup>[7]</sup> Depending upon *Doshabala*, *vyadhibala* appropriate remedy from above should be selected and implemented.

#### 2. *Rasayanam Viddhi Vaat Upyoga* (Use of *Rasayana*)

According to *Acharya Charak* treatment is of two types.<sup>[8]</sup>

### 1. Promotive- It is of two type

a) Which provides strength and immunity to healthy person- *Rasayana* (rejuvenation) The *Rasayana* is of two types. i.e. *Kutipraveshtik* and *Vatatapika*. In case of communicable disease *vatatapik Rasayana* can be used. It has minimal precautions and can be easily used in day to day life. In *Charak Samhita Chikitsasthanaadhyay* 1 various *Rasayana* and their indications, benefits have been mentioned. Out of which *Chyavanprash*, *TriphalaRasayana* etc will prove helpful.

b) Which promotes sexual vigor- *Vajikaran* (aphrodisiacs)

### 2. Curative- treatment which cures the disease of suffering people.

#### 3. Achar Rasayana and Sadvrittapan

These rules and regulations help in maintenance of mental and spiritual wellbeing of a person. Truth, sympathy, respecting elders and teachers, helping needy people, eating nutritious and *Satvikaahar* e.g. milk, ghee etc. in daily food. Properly following these rules will benefit the person in the same way as that of consuming *Rasayana*. Hence it is called *AcharaRasayana*.<sup>[9]</sup>

Along with this regimen treatment of symptoms as per mentioned in *chikitsasthana* can be done.

### CONCLUSION

The early development of *Ayurveda* possessed some idea about pathogens, but it was believing that body attracts pathogens after the pathological derangement means pathogens do not initiate disease but contributes towards the progression of disease ones it has started. Hence immunity or *Rugnabala* plays very important role in this disease process.

*Charaka* described *Vayu*, *Jala*, *Desh* and *Kala* as etiological factors for communicable disease. The role of pathogens in transmission of infectious diseases not recognized up to great extent. *Charaka* greatly dealt with epidemic concept of communicable diseases and explore spread of communicable disease to many populations. However, at that time the role of pathogens in disease transmission was not understood adequately.

*Sushruta* mentioned way of spreading of communicable diseases from one person to the other. The *Samhita* described various mode of disease transmission such as; interaction with infected person, physical contact, through breath, eating infected food, sexual intercourse and sharing cloths.

*Vagbhata* emphasized communicable diseases related to skin and state that accumulation of *kled* (moisture) attracts organisms which eat away the skin, lymph and muscle. *Vagbhata* described term *avahana*; the process of invasion of skin diseases with pathogenic organisms.

*Ayurveda* has given multiple ways of management for such kind of communicable diseases such as use of *Krimighna* drugs, use of *Rasayana* or *Bal wardhana*

through *panchakarma* or medications for strengthening *Agni*.

Mode of transmission of diseases as mentioned in *ayurveda* gives us a comprehensive guideline for prevention of communicable diseases which are so applicable in this modern era including pandemics like COVID-19 also.

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