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Review Article

Ayurveda and Modern Correlation of Some Infectious Diseases: A Literary Review

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ABSTRACT

Charak the ancient *Acharya* of traditional medical practice described *Doshavikriti* and *Agantuj* as major factors responsible for disease prevalence. *Doshavikriti* is internal factors related to *Dosha* vitiation and *Agantuj* is external factor which involve role of contaminated water, food, microbes and trauma in diseases occurrence. Ayurveda text mentioned *Kustha*, *Jwara*, *Shosha* and *Netrabhishyanda* as diseases which spreads one to another through direct or indirect contact. The *Prasnaga*, *Gatra Sansparsha*, eating & sleeping together, sharing cloths & ornaments are some mode of transmission of infectious diseases. There are significant correlations between ayurveda and modern literature available on infectious diseases. However some descriptions on specific diseases mentioned in ayurveda text differ from modern text up to some extent. Therefore it is required to present modern and ayurveda aspects of infectious diseases, considering same present article summarizes correlation between ayurveda and modern text on some infectious diseases.

Keywords: *Ayurveda, Infectious Diseases, Contagious Diseases, Microorganism, Krimi.*

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Introduction

The medical practitioner encountered to infectious diseases most commonly during their day by day practices. The prevalence of infectious diseases affecting whole world since evolution of human civilization and incidences of such diseases increases day by day despite great progress in medical sciences. *Acharya* has mentioned role of *Vayu*, *Udak*, *Desha* and *Kala* for epidemics of infectious diseases. Ayurveda also described role of various physical, chemical & biological factors towards the occurrence of infectious diseases.

Microorganism: Modern and Ayurveda Perspective

The concept of microorganism described equally in ayurveda as well as in modern science. It is believe that there are different types of microorganism including; bacteria and virus which induces pathogenesis of communicable diseases and spread them one to another. The restriction in microbial load helps greatly in the management of infectious diseases thus understanding of microbiology not only help to know disease causes but also offer path for diseases management. The modern concept of communicable diseases broadly

emphasizes two category; bacteria originated diseases and diseases from virus. Modern science also described term of good bacteria especially bacteria of intestinal flora which are good for body and help in digestion process. Therefore modern science encompasses information on both pathogenic as well as non-pathogenic bacteria.

In ayurveda the concept of microorganism described as *Krimi* which may be *Drisy* (visible) and *Adrisya* (invisible). The minute form of *Krimi* in ayurveda termed as *Kshullaka*. Furthermore ayurveda elaborated term *Durnam* and *Sunam* for pathogenic and non-pathogenic *Krimi* respectively. Similarly *Acharya charak* described two types of *Krimi* *Vaikaric* (pathogenic) and *Sahaj* (non-pathogenic). Likewise modern concept ayurveda also emphasizes *Agantuj Vyadhis* as diseases occur due to the *Krimi*. In developing era of science during 19th century *Acharya Gananath Sen* mentioned bacteria as a *Jeevanu* responsible for most of the infectious diseases, in this connection *Antrik Jwar* further correlates with enteric fever which occurs due to the bacterial contaminated food and water, spread through stool or urine.

Table 1: Samprapati (Pathogenesis): Modern and Ayurveda Perspective

Etiological factor	Hetu/Prasnaga & Gatra Sansparsha, etc.
Micro-organism invasion	Jeevanu accommodate specific site/ <i>Sthana</i> in body
Attachment of pathogen to some tissue	<i>Visha</i> /toxin release
Multiplication using host nutrient & cells	Vitiation of <i>Doshas</i>
Toxin release simultaneous to multiplication	Vitiation of <i>Dhatus</i> / <i>Rakta</i>
Physiological disturbance/tissue damage	Disturbances in <i>Srotas</i>
Host Immune response/defense mechanism induces early symptoms of infections	<i>Sankramana Vyadhis</i>

Disease transmission as per Ayurveda

- *Prasnaga* all forms contacts, *Gatra Sansparsha*
- *Abhisangaj*, *Butabhi Sangaj Jwar*, *Unnmad* and *Kushtha*
- *Bhuta*, *Abhisanga*, *Abhichara*, *Daiva Prokapa* and *Rakasasha*
- *Vayu*, *Udak*, *Desha* and *Kala* are the factors responsible for *Janapadodhwansa*

Disease transmission as per Modern Science

- Physical contact; through touch, sexual intercourse fecal or oral transmission.
- Contact with a contaminated surface or object.
- Consumption of infected food and waters.
- Insects or animal bites capable to transmit disease.
- Infection through air.
- Epidemics

Table 2: Some infectious diseases as per may correlate with modern sciences:

S. No.	Disease (Ayurveda)	Modern correlation
1	Masurika	Chicken Pox
2	Oastha Prakopa	Chapped lips
3	Upakusha	Gingivitis
4	Galashundika	Elongated uvula
5	Tundikeri	Tonsillitis
6	Mushak Visha	Rat Poisoning
7	Atisara	Diarrhea
8	Visham Jwar	Malaria

Masurika

Consumption of unhygienic *Ahara* causes blood impurity which further resulted disease *Masurika*.

Chicken Pox

In Modern this disease may be correlated with Chicken Pox caused by virus called *varicella zoster*. The disease symptoms involve runny nose, sneezing & cough. The later symptoms involve rash and spots on the chest, face and entire body.

Oastha Prakopa

Avoidance of activities such as; *Datuna*, *Gandusha* and *Vaman*, etc. may lead pathological condition such as; *Oastha*

Prakopa. *Kapha Dosha Prakopa* is considered as pathological fact of disease.

Chapped lips

This disease may be correlates with chapped lips which spread from one person to another due to climatic changes.

Upakusha

Abhigata and *Abhishanga* leads transmissions of disease like; *Upakusha* form one person to another which involve symptoms such as; burning sensation, pus formation and bleeding in gums, etc.

Gingivitis

Upakusha may be correlates with Gingivitis as per modern science which spreads due to cigarette smoking and bacterial infections, etc.

Galashundika

Vata Kasa or *Kasa* for long time may lead disease like; *Galashundika*. *Kasa* also spread disease from one to another.

Elongated uvula

In modern science *Galashundika* up to some extent may be correlates with elongated uvula which may occur due to bacterial & viral infections associated with common cough & cold.

Tundikeri

Tundikeri is one of the *Urdhva Jatrugata Roga* considered as *Talugataroga* and *Kanthagataroga* caused by micro-organisms.

Tonsillitis

The symptoms of *Tundikeri* in modern science resembles symptoms of Tonsillitis which is considered disease of throat area caused by microorganism such as; streptococcal bacteria & other bacteria causing strep throat.

Mushak Visha

Mushika Visha occurs after bite of the *Mushak*, it spreads through *Mushak Dansha* and *Shukra* of *Mushak*.

Rat Poisoning

Mushika Visha means Rat Poisoning caused by bacteria *Streptobacillus* which transmits through the bite of an infected mouse. It is also caused by an organism *Spirillum minus* associated with rat bite fever.

Atisara

Consumption of unwholesome diet, polluted water and infestation by *Krimi*, etc. may causes disease *Atisara*. The symptoms involve loose motion, dehydration, fatigue and abdomen pain, etc.

Diarrhea

Atisara in modern science may be correlates with diarrhea which possesses symptoms similar to *Atisara* causes by bacterial and parasite infestation. The incidences of *Atisara* (diarrhea) are more in children especially school going children. Contaminated foods and water are major sources of intestinal infections.

Visham Jwar

Visham Jwar may occur due to the consumption of unsuitable foods, unhygienic conditions, *Bhutabhisanga* and epidemic effects. These etiological factors leads vitiation of *Doshas* which further induces *Dhatu* imbalances. The symptoms involve irregular or intermittent fever.

Malaria

Malaria in modern science possesses symptoms similar to *Visham Jwar* including fever, cold, headache and inflammation. It is transmitted through female anopheles mosquito.

Conclusion

Ayurveda emphasized *Doshavikriti* and *Agantuj* as major etiological factors responsible for occurrence of infectious diseases. The diseases comes under contagious diseases as per Ayurveda are *Kustha*, *Jwara*, *Shosha* and *Netrabhishyanda* which spreads one to another through direct or indirect contact. *Kustha* may be correlated with modern science Leprosy, *Jwara* as Fever, *Shosha* as Tuberculosis and *Netrabhishyanda* may be correlates with conjunctivitis as per their sign & symptoms. However ayurveda mentioned some other diseases as infectious diseases which spread through all forms of *Prasnaga*, *Gatra Sansparsha*, eating & sleeping together, sharing cloths & ornaments. Disease *Masurika* resembles Chicken Pox of

modern science, *Oastha Prakopa* resembles symptoms of Chapped lips, *Upakusha* possesses sign of Gingivitis, *Galashundika* correlates with Elongated uvula, *Tundikeri* described as Tonsillitis similarly *Mushak Visha* and *Atisara* correlates with Rat Poisoning and Diarrhea respectively. *Visham Jwar* having symptomatic similarity with Malaria as per modern science. There are significant correlations between ayurveda and modern literature available on infectious diseases. However some descriptions on specific diseases mentioned in ayurveda text differ from modern text up to some extent.

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