

Review Article

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CONCEPTUAL STUDY OF ROLE OF AYURVEDA TOWARDS INFECTIOUS DISEASES W.S.R. TO COVID-19: A REVIEW

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Abstract

Ayurveda the ancient stream of disease management emphasizes various pathological and therapeutic aspects of some common diseases and infectious disease is one such category which affects human health commonly. *Sankramak Roga* (communicable diseases) well described by ancient Ayurveda philosophers and they specifically coined term *Aupasargika Roga* for epidemic conditions. Similarly another term *Janapadodhvansa Roga* coined for pandemic conditions involving rapid outbreak on large scale. Moreover, Ayurveda mentioned terms *Upsragaja* and *Sansargaja* depending upon the mode of transmission of infectious disease. These all aspects showed that Ayurveda scholars were well aware about the infectious diseases and they have proposed various preventive and curative approaches including *Shodhana* and *Rasayana Chikitsa* for the management of such pathological conditions. Present article explored conceptual basis on the role of Ayurveda towards the infectious diseases W.S.R. to current pandemic situations.

Key-Words: *Ayurveda, Infections, Janapadodhvansa, Rasayana, Pandemics.*

INTRODUCTION

The current global health scenario facing problem of pandemic infection and internal strength of an individual play major role in such types of conditions. The infectious disease can transmit from humans to humans from animal to humans therefore more attention need to pay to restrict their spread. Human to human transmission may occur through *Gatrasansparsat*, *Nihsvasat*, *Saha Bhojnat*, *Vastramalyanulepanat* and *Sahashaiyananat*, etc. *Swasa* (Asthma) and *Pratisyaya* (Coryza) transmitted through air, inhalation of deranged air may cause *Shosha* (Tuberculosis) and diseases like skin diseases transmit through skin contact. *Krimi* (micro-organisms) can initiates pathogenesis of disease when *Nidana* become predominant and *Bala* get reduced. The vitiation of factors depicted in **Figure 1**, contributed mainly towards the prevalence of *Janapadodhvansa*. The current pandemic situation seeks attention of researchers of medical fraternity and Ayurveda also putting great efforts in this regards ¹⁻⁵.

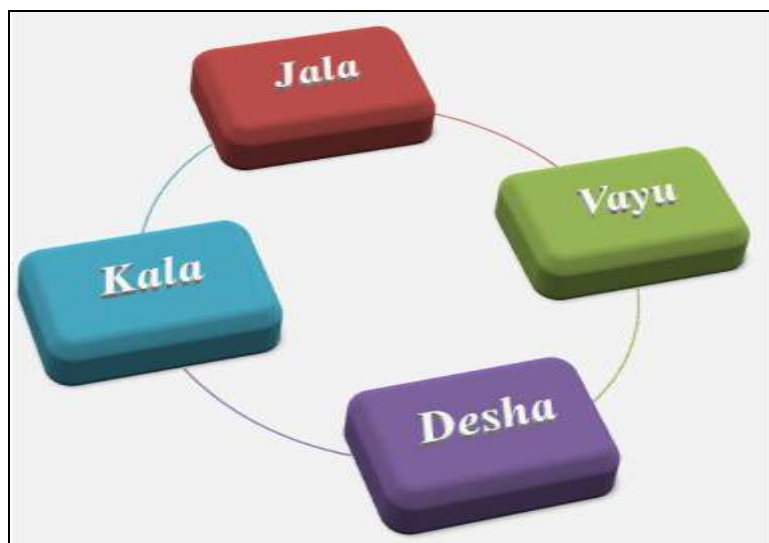


Figure 1: Factors associated with prevalence of *Janapadodhvansa*

Ayurveda Management of Infectious Diseases:

Loss of immunity, vitiation of *Doshas*, disturbances of *Kosthagni*, *Ama* and *Srotodushti*, etc. mainly involve in the pathogenesis of diseases. Therefore line of treatment in Ayurveda focuses towards improving immunity, pacification of *Doshas*, clearing *Ama*, curing *Srotodushti* and strengthening of *Kosthagni*.

Prakriti Vighata, Nidaana Parivarjana, Panchakarma and Rasayananam Viddhi Upyoga, etc. are some approaches of Ayurveda which can help in the management of microbial diseases. *Nidaan Parivarjana* means avoidance of etiological factors responsible for enhanced susceptibility towards microbial infections. *Prakriti Vighata* means uses of drugs which can break pathological cascade of disease and decrease *Kapha* and *Malas* so that growth of microbes get reduced. *Panchakarma* therapy facilitates detoxification of body thus decreases susceptibility towards the *Sankramak Roga, Vaman, Nirubasti, Anuvasan basti* and *Virechana*, etc. are recommended for controlling vitiation of *Doshas* during infectious diseases. *Rasayananam Viddhi Upyoga* means uses of *Rasayana* drugs which imparts rejuvenating effects and boost immunity [5-9].

Drugs possess *Tikta, Katu* and *Ushna* properties suggested for the management of such cases. *Neem, Amla, Guduchi, Pippali, Turmeric* and *Asvagandha*, etc. are some useful drugs. The antimicrobial property of these drugs gives pathological relieves by reducing growth of microorganism. These drugs provide benefits in topical as well as systemic manifestation of infectious diseases. Ayurveda drugs remove microbial toxins, carminative and stimulant effect correct digestive process thus maintains nutritional supply & restores *Bala* and immunity. The effect on *Dhatu*s gives internal strength and some drugs affect migration of inherent antibodies and phagocytosis thus help to reduce microbial load. Drug like *Rubia cordifolia* is useful in urinary tract infection and gives antiseptic action. *Amla* helps to cure infectious fevers and offers antiviral property. *Guduchi* possess great antimicrobial action and useful in many infectious diseases. It helps in urinary infections, skin infections, bronchial infections and syphilis. *Guduchi* also improves natural defense mechanism. *Pippali* relieves intestinal parasites, *Turmeric* offers immuno-stimulants effect, *Katuki* is useful in skin infections, *Asvagandha* gives therapeutic response in childhood infections and *Tulasi* strengthen immune system mainly against respiratory tract infections and *Vasa* helps in tuberculosis.

Ayurveda formulations such as *Triphala, Pippalyadi Yoga, Rasanjanadi Churna, Sudhasar Rasa, Satavari Kalk* and *Gangadhar Churna*, etc. also provide health restoring effects in microbial infections. Classical Ayurveda formulations promote immunity, improve appetite, nourish body, strengthen and improve circulation through minute

channels therefore reduce infections, alter cell-mediated immune response and affect migration of leukocyte thus gives therapeutic results in microbial infections^{4,6,7,9-10}.

Probable mode of action of ayurveda drugs in microbial infections:

The *Rasayana* drugs promote nutritional supply and balance metabolic activities therefore potentiates *Dhatu*s thereby natural immunity gets improved and restoration of *Bala* provides resistance against pathological microorganisms. *Ushna* properties of some drugs improve *Agni* and prevent formation of *Ama* thereby exerts *Strotovishodhana* effect resulting improvement in functioning capacity of *Strotas* to facilitates transportations of antibodies and circulation of *Rasa* restore normal physiology of vital organs. *Ushna*, *Katu* and *Laghu* properties of drugs provide *Vishaghna* action to nullify toxins induced pathogenesis of infections inside the body. The purifying effect on *Rakta Dhatu* and pacification of aggravated *Doshas* by herbal drugs offer health benefits at initial stage of infectious diseases.

Ayurveda & Current Pandemic Situation

The current pandemic condition associated with novel Coronavirus family causes disease named COVID-19 possessing symptoms of fever, breathing difficulty and dry coughing. Respiratory system mainly get affected thus there may be chances of *Vata-Kapha* imbalance when symptoms of *Jwara* and *Swasa* arises. *Ayurveda* mainly focuses towards immune-modulation approaches through *Sodhana* and *Rasayana* therapies for *Janapadodhvansa* diseases.

Ayurveda suggested uses of *Chyavanprash*, milk with turmeric powder, *Tulsi Kwatha*, black pepper, dry ginger and cinnamon, etc. to improve immunity against microbial infections. Therapies like *Gandusha*, *Partimarsha Nasyai* and *Ushnodaka*, etc. also advised for infections possessing respiratory symptoms^{1, 11-12}.

Ayurveda Drugs for Current Pandemic Situations:

Ayurveda herbs like *Shunthi*, *Bhumiamalki*, *Yashtimadhu*, *Haritaki* and *Maricha*, etc. can be useful to improve immune response against viral infection. *Zingiber officinale* contains volatile oils, phenols and alkaloid therefore gives antiviral and antioxidant activity, not only boost disease resistance power but also restrict oxidative damage of tissue. *Bhumiamalki* has antiviral and hepatoprotective properties due to the presence of flavanoids, tannins and phenols. *Yashtimadhu* rich in phenolic components like and

gives therapeutic benefits in throat problems and helps to treat upper-respiratory tract infections, Glycyrrhizinic acid and other compounds present in herb offers anti-viral property. *Haritaki* has Gallic acid and Tannins thus provides antiviral action and anti-inflammatory effects therefore it can reduce pathogenesis of microbial infections and relieves symptoms of inflammation like fever and body-aches. Similarly *Maricha* rich in ascorbic acid and other components present in drug imparts anti-inflammatory, antioxidant, anti-microbial and antipyretic activities thus provides relief in cold and cough associated with respiratory infections ^{6, 9-10}.

CONCLUSION

Ayurveda literatures explored many preventive and therapeutic approaches for *Janapadodhvansa* in which destruction of mass population occur due to the indulgence in disease causative factors. *Nidan parivarjana*, *Apakarshanam* and *Prakriti Vighata*, etc. are some classical ways presented by Ayurveda as preventive measures to manage common infectious diseases. The current pandemic infectious disease mainly affect respiratory system and can be considered as *Vata-Kapha* predominant condition as per Ayurveda view. *Jwara*, *Kasa* and *Svasa* are major symptoms since *Uras* is main site of infection. Ayurveda emphasized role of *Ahara* and *Vihara* as preventive approach and uses of *Aushadhi* as therapeutic measure to manage infectious diseases. Improvement of immunity, balancing *Doshas*, clearing of *Ama* & *Srotodushti* and potentiating *Dhatus*, etc. are some Ayurveda line of treatment for such types of diseases. In this regards Ayurveda recommended uses of drugs such as; *Amla*, *Guduchi*, *Neem*, *Turmeric* and *Pippali*, etc. along with Ayurveda formulations like; *Pipplyadi Yoga*, *Rasanjanadi Churna*, *Triphala* and *Gangadhar Churna*, etc. to acquire health benefits in microbial infections.

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