

AYURVEDIC PERSPECTIVE OF COMMUNICABLE DISEASES LIKE COVID-19**Dr. Md. Nazmul Huda* and Dr. Girijesh Kumar Gautam¹**

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ABSTRACT

Coronavirus disease 2019 (COVID-19) is an infectious disease that causes the highest morbidity and mortality in the world. More than 17 million people affected and died 1 lakh more globally until dated 11 April 2020. More research is going on but till no drug or vaccine justified to cure or prevent this disease. So prevention is the way to reduce the frequency of affecting and mortality until the innovation of a new drug or vaccine. Some Ayurvedic therapeutic procedures may help to prevent various communicable diseases like COVID-19. Ayurveda is the oldest medical system in the world and its practice in Indian subcontinent for many years. The Ayurvedic systems of medicine describes the cause, mode of transmission and prevention of various infectious and epidemic diseases in the name of the aupasargic roga (communicable disease) and janapadodhvansa roga (epidemic disease). Ayurvedic chikitsa (treatment) like nidana parivarjan (avoid the diseases causing and aggravating factors), apakarshana (elimination therapy), prakriti vighata (breaking the pathogenesis of diseases), rasayan chikitsa (rejuvenation therapy), dincharya (daily regimen), ritucharya (seasonal regimen), achar rasayan (behavioral therapy) and sattvavajaya chikitsa (mind control therapy) may help to prevent various infectious and communicable diseases like COVID-19.

KEYWORDS: Coronavirus, Nidaana Parivarjan, Rasayan Chikitsa, Dincharya, Ritucharya, Sattvavajaya Chikitsa.**INTRODUCTION**

In the 21st century, infectious diseases are the leading causes of morbidity and mortality in both developed and developing nations.^[1] Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), that leads to acute infectious pneumonia.^[2] The outbreak was the start of Wuhan city, Hubei province, China in December 2019.^[3] On 11 March 2020 World Health Organization (WHO) declared pandemic and affected more than seventeen million people and died 1 lakh more patients globally till 11 April 2020.^[4] Every affected country trying to handle the situation with their own medical facilities, but the overall situation is not controlled even though in some developed countries also due to limitation of diagnostics tests and other services facility for COVID-19. Till it is not justified to cure by any medicine and long term prevention by vaccination.^[5] But some Ayurvedic short term procedure may reduce the affects and mortality rate of patients. Here we can follow the theory that is "Prevention is the Best Medicine". Actually the oldest Ayurvedic systems of medicine based on "Protect health of the healthy and alleviate disorders in the diseased". Ayurvedic systems of medicine clearly describe the cause, mode of transmission and prevention of various

infectious and epidemic diseases in the name of aupasargic roga (communicable disease) and janapadodhvansa roga (epidemic disease).^[6] In Charaka Samahita, viman sthana chapter three describes the communicable and epidemic diseases as the term of Janapadodhwans which means destruction or annihilation of communities or settlements. It mentioned vayu (air), udak (water), desha (soil & area), kala (time) are the factors responsible for Janapadodhwansha-epidemics.^[7] The other root causes of communicable diseases are adarma it means not following individual's duty to the community. It also means people are not maintaining dincharya (daily regimen), ritucharya (seasonal regimen), and achar rasayan (behavioral therapy).^[8] All these things are responsible for hampering the immunity of an individual.

Communicable and epidemic diseases are as termed as aupasargic roga in chapter five of nidana sthana in Susruta Samahita. It describes kustha (group of skin disease), jwara (pyrexia or fever), shosha (kock's or tuberculosis) etc are communicable diseases and spreads through contaminated objects. The mode of disease transmission may be prasangat (close contact), gatra samsparshat (physical contact with diseases individual), nishwasa (inhalation, droplet infection), sahabhojanat

(close contact such as sharing food), sahashayya (sleeping together), asana (using same sitting arrangement), vastra (using same cloth), aulepa (using same cosmetics) and malya (using same garlands) etc. through from person to person. The above all the references are closely related to modern medicine.^[9]

Ayurvedic Pathogenesis of Communicable Diseases

Health is defined in Ayurveda as the equilibrium of three body humors (vata, pitta and kapha), digestive fire (agni), all body tissues (dhatus), waste products (malas) with pleasantly disposed and satisfied mind, senses and spirit.^[10] If any components either increase or decrease that is unhealthy or disease. Furthermore, the oja (the fine essence of all dhatus) or immunity is the important factor to maintain the healthy state or disease free. Depletion of immunity is the prevalence of communicable diseases, according to great Ayurvedic physician Charaka.^[11] He also said if anyone have vitiated bodies humors, body tissues and depletion of immunity those are more susceptible to diseases. Later on the Ayurveda also accepts the macro and microorganism as a Aguntuja hetu (exogenous factor) that vitiate the body humors which affect body tissue and leads diseases if immunity depleted. So Ayurveda strongly recommended that the transmission of diseases from one person to another depends upon the strength of immunity. Therefore, person with low immunity have more chance to affects by different communicable diseases.

Ayurvedic Management of Communicable Diseases

The Ayurvedic treatment encompasses the equilibrium of dosha (body humors), dhatus (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.^[12] 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.^[13]

Nidaana Parivarjana Chikitsa (Avoidance of disease causing and aggravating factors): Nidan parivarjan means to avoid the known causative factors of a particular disease.^[14] It can be followed by lifestyle

modification such as dincharya (daily regimen), ritucharya (seasonal regimen) and sadvritta (rules of good conduct). Here WHO instructions should follow to prevent the infection of SARS-CoV-2.^[15]

- Regularly and thoroughly clean hands with an alcohol-based hand rub or wash with soap and water at least 20 seconds.
- Maintain at least 1 metre (3 feet) distance between yourself and anyone who is coughing or sneezing.
- Avoid touching eyes, nose and mouth.
- Practice respiratory hygiene.
- Refrain from smoking and other activities that weaken the lungs.
- Practice physical distancing by avoiding unnecessary travel and staying away from large groups of people.

Apakarshana Chikitsa (elimination therapy):

Apakarshana is the process by which the unwanted components removed or eliminated from the body by using a various purificatory process like vaman (therapeutic emesis), virechana (therapeutic purgation), basti (enemas), nasya (nasal instillation) and rakta mokshana (bloodletting).^[14] These processes may help to eliminate the toxins or unwanted components from the body. As COVID-19 spreads by droplet so here nasal installation might be helpful to protect the organism to enter into the lungs through nasal route. Because after putting two-three drops of sesame oil or any other medicated oil like anu tail or sarabindu taila in each nostril, it will lubricate the nasal passage and strengthen the inner mucus membrane to hold off the foreign bodies.

Prakriti Vighata Chikitsa (breakup the pathogenesis of diseases):

Prakriti vighata means by which destroy the favorable environment for growth of organisms and that stop the disease processed. Basically Ayurvedic pharmacology depends on rasa (taste), guna (attribute/quality), virya (potency), vipak (metabolism), prabava (specific action) and karma (action) of particular drugs. According to Charaka the drugs those having the taste of katu (pungent), tikta (bitter), kashaaya (astringent), and properties of kshra (alkali), ushna (hot), that aids to decreases the unwanted substances or toxins or foreign body from the body^[16], so that body can produce more defensive activity against the organisms. There are some single drugs like kalomegh (*Andrographis paniculata*), chirata (*Swertia chirayita*), tulsi (*Ocimum sanctum*), vasak (*Adhatoda vasica*), neem (*Azadirachta indica*), pipul (*Piper longum*), sunthi (*Zingiber officinale*), golmorich (*Piper nigrum*), daruchini (*Cinnamomum zeylanicum*), lobonga (*Syzygium aromaticum*) those contains katu (pungent), tikta (bitter), kashaaya (astringent) taste, and ushna (hot) property that might stop the replication of SARS-CoV-2 and reduce the symptomatic relief of COVID-19. Among them past studies also showed that *Andrographis paniculata*^[17], *Glycyrrhiza glabra*^[18], *Ocimum sanctum*^[19], *Adhatoda vasica*^[20], *Zingiber officinale*^[21],

and *Piper nigrum*^[22], has the antiviral effects against respiratory infection in human.

Rasayan Chikitsa (Rejuvenation therapy): COVID-19 is an immune responsive disease, the immune response is required to remove the virus SARS-CoV-2 infection and to prevent disease progression from mild to severe stages.^[23] So rejuvenation therapy would be very supportive from the attack of communicable and infectious diseases like COVID-19. Acharya Charak also describe the rejuvenation therapy may be used as prophylactic for communicable disease with minimal precautions.^[24] Specifically, some medicinal plants such as guruchi (*Tinospora cordifolia*)^[25], haluda (*Curcuma longa*)^[26], amlaki (*Emblica officinalis*)^[27], ashwaganda (*Withania somnifera*)^[28] kalijira (*Nigella sativa*)^[29] have showed the immunomodulatory effects. Either single or combined use of above plants may boost up the immunity in human and that may help to less chances to be affected by SARS-CoV-2 infection. World Health Organization state that the mental and psychosocial well-being is very crucial in different target groups during the outbreak of COVID-19.^[30] Here achara rasayan (behavioral therapy) should follow for maintaining a healthy state of physically, mentally, socially and spiritually.^[31] Because the behavioral therapy may enhance the positive emotions and experiences of life, which promote the production of immunity. The regular practice of behavioral therapy makes the person more ethical, social, moral and religious so that the internal environment of the body can be maintained and the disease process can be stopped.

Vayam (Exercise): Exercise is an essential component for promotion of health and curing the disease of a patient. It is the easiest way that keeps the person free from various physical and mental disorders and assistance to rejuvenation and longevity without any medication.^[32] Globally 6% of death are responsible due to physical inactivity according to WHO.^[33] Acharya Charaka says exercise is the process of physical activity that alleviate the imbalanced body humors, stimulate the digestive fire and brings the firmness, strength and increase the immunity.^[34] So, one can achieve healthy and longer life by performing exercise daily can prevent many diseases like COVID-19.

Pathya (Wholesome food): According to Ayurveda, the wholesome food is referred as the "Greatest Medicine." The wholesome food is the wellbeing of human growth but unwholesome food is the root of all diseases.^[34] The wholesome food nourishes the mind, body and soul and proper quantity provides strength, vigor, good complexion and nourishes the tissues.^[36] The food based on age, lifestyle, climate, health conditions and body constitution.^[37] Nutrition has a significant role in supporting the immune system.^[38] Immune system is the key to prevent infection and disease. So a healthy, balanced diet that contains vitamins A, B6, B9, B12, C, D, and E, and the minerals iron, selenium, copper and

zinc can support the immune system. It might be advantageous to fight against COVID-19 although there is no evidence that prevents the effects of COVID-19.

Sattvavajaya Chikitsa (Mind Control Therapy):

Basically, mind control therapy includes replacement of emotions, assurance and psycho-shock therapy. Mind control therapy is applied in varying forms in all kinds of diseases, but specially indicated in mental diseases.^[39] According to Ayurveda the mind can control by correction of misconceptions, self-realization, adaptations of prophylactic measures, better inter-person relationships, change negative thoughts, high level of awareness etc.^[40] Thus, this way mind control therapy can play a significant role in the maintenance of a pleasant state between the body and mind, and can use as a prophylaxis of various diseases including newly emerging diseases like COVID-19.

CONCLUSIONS

The pandemic COVID-19 infection is a global burden, no doubt that will impact on every aspect of life, so until the invention of any vaccination and curative treatment the regular practice of above therapeutics or technique may protect the incidence of COVID-19 and may come down the mortality rate of COVID-19.

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