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Understanding of Covid-19 disease through Ayurveda

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ABSTRACT

The outbreak of novel corona virus provides an opportunity to revisit the ancient wisdom of Ayurveda for its prevention. As there is a severity of novel corona virus is high in global level hence there is a high consciousness in society about healthy living and its prevention. A novel corona virus that emerged in late 2019 and resulting COVID-19 disease, which has been labeled a public health emergency of international concern by the WHO. Now a physician has to know about its prevention, diagnosis and management. As Ayurveda says, even-though the disease is affecting the whole world with its severity, one need not to be afraid of disease if physician is assured of proper medicaments for treatment. Considering this disease is mainly affecting respiratory system and further involves other systems also, which can be correlated with vitiation of *Pranavaha Srotas* and *Rasavaha Srotas* in its pathogenesis. So starting with *Nidana, Purvaroopa, Roopa, Upasaya* and *Samprapti* the whole COVID-19 disease can be analysed.

Key words: COVID-19, Pandemic disease, Pranavaha, Rasavaha Srotas, Pathogenesis.

INTRODUCTION

Ayurveda is ancient medical system that deals with normal and abnormal health of a person along with spiritual mind. The term "Ayurveda" is not limited to medicine, cure or therapy, rather it implies an approach to life and living, and is guided by the *Praneshana*, *Dhaneshana*, *Paralokeshana*.^[1] In Ayurveda for leading the normal life it is essential to follow *Trayopasthambhas* i.e., *Ahara*, *Nidra*, *Bramhacharya*.^[2] Here *Ahara* has been given the prime place for happiness and unhappiness of life of an individual. According to Ayurveda most of the disease occurs due to the pathological changes in the

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body. As disease are innumerable in number based on distinctive features like *Nidana, Samsthana, Lakshana, Vedana, Varna*.^[3] Hence it is left to physician *Yukti* to decide the diagnosis of disease and its treatment based on *Aptopadesha* knowledge found in Ayurvedic classics. The lack of previous experience with this virus is part of the reason public health officials are working so hard to control the spread of Corona Virus. So it is necessary to work on its origin and pathogenesis in detailed through Ayurveda.

OBJECTIVES

- Review of Covid-19 disease as per modern medical science.
- 2. To review the involvement of *Pranavaha* and *Rasavaha Srotas* in the pathogenesis of Covid-19 disease as per Ayurvedic classics.

Modern view of Covid-19 disease

Causative organism ^[4]	RNA Beta corana virus
1 st case	On 31 st December 2019 in wuhanhubai
spotted ^[4]	province of China

Source ^[5]	Genetic analysis - the scaly ant eating pangolin was a prime suspect		
Transmission ^[6]	Droplets, close contact		
Symptoms ^[7]	Acute	Chronic	
	Cough	Pneumonia	
	Shortness of breath	SARS	
	Fever	Kidney failure	
Investigations ^[8]	Sputum		
	Swab Lavage Serum		
	X-RAY & CT of chest		
	RTPCR - (RNA analy	sis)	
Treatment ^[9]	Symptomatic treatment		
	Supportive care		
	IV fluids		
	Ventilation		
	Tab. Remdesivir (Anti-viral drug - Ebola)		
	Tab. Ritonavir (Anti HIV drug)		
	Tab. Chloroquine (Anti malarial drug)		
*till there is no vaccine for Covid-19 disease			

Ayurvedic view of Covid-19 disease

Ayurveda is the knowledge of science, which ensures health and longevity. Ayurveda does not have a specific text as epidemiology, but the principle described in piece meal can be compiled, analyzed and interpreted in the light of modern theories of epidemiology. Acharya Caraka describes a concept called Janapadhwamsa that can be compared with epidemic, pandemic, endemic where "Adharma" is Moolakarana for Janapadhwamsa Vyadhies. [10] Here Adharma means, the person who is not following Dinacharya, Ritucharya, Aharavidhi and

Sadvrutpalana will leads to Vyadhi. But also the things hampering the immunity of an individual.

- As diseases are innumerable based on *Prakrti*, Adhistana, Linga, Ayatana, Vikalpa, Vishesha.^[11] So a physician has the liberty to classify the disease according to his Yukti.
- As Charaka says each individual differs in physical constitution, food habits, strength, immunity, age.
 They do gets affected with disease which are wide spread manifestation in community.
- Susrutha explains the way of disease transmission by Prasangath, Gatrasamsparshath, Niswasath, Bhojanath, Sahasayaashanath, Vastramalyanulepanath. More over the modern text of communicable disease epidemiology describes similar mode of disease transmission. He also given examples of some diseases that spread through all these modes. Such as Kushta, Jwara, Rajayakshma etc.^[12]

Nidana Panchaka

Nidana Panchaka is a great tool for diagnosis of disease in Ayurveda. The Ayurvedic diagnostic approach is of two types

- Rogapariksha
- Rogipariksha

Among them *Rogapariksha* gives us the complete knowledge about a disease starting from the etiological aspects to the actual manifestation of disease.

Nidana

While explaining the *Nidana* of *Vyadhi, Acharyas* classified into two division broadly as;

- 1. Nija Vyadhi
- 2. Agantuja Vyadhi
- Nija Vyadies involves Aharaja and Viharaja Nidana which directly leads to Dosha vitiation.
- Ahantuja Vyadhies involves Abhighataja, Abhishangaja, Abhisapaja, Abhicharaja Nidanas

which causes *Vyadhi* first then leads to *Doshic* vitiation.

As Ahara is one among the Trayoupasthamba, which is Ayatana for both Roga and Arogya. In parallel with Ahara, Vihara also plays an important role in prevention and management of disorders as it has impact on physical, mental, as well as social health of an individual.

Ahara Vihara

Vataja

Ahara : Excessive intake of Rooksha, Laghu, Sheeta Ahara, Vishamashana.

Vihara: Vegasandharan, Abhighata, Udvega. [13],[14]

Pittaja

Ahara : Excessive intake of Ushna, Amla, Lavana, Katu, Vidahi.

Vihara : Teekshna Aatapaagni Santapa, Shrama, Krodha.[15],[16]

Kaphaja

Ahara: Excessive intake of Snigdha, Guru, Abhisyandi, Madhura, Pichila, Sheeta.

Vihara: Divaswapna, Avyayama. [17],[18]

Purvaroopa

The good knowledge of will help the physician to curb a fourth coming disease in its early stages. Because treatment at this stage would require minimal or simpler modalities.

Samanya Poorvaroopa

Alasya, Nayanasrava, Jrumba, Klama, Jwalana, Atapa, Bhaktadvesha, Avipaka, Aasyavairasya, Balavarnahani, Sheelavaikrut, Shookapoorna Gala, Kantakandu, Bhojana Avaroda. [19],[20]

Roopa

The knowledge of *Roopa* will help for planning of specific treatment.

Samanya Roopa

Santapa, Trishna, Aruchi, Angamarda, Hrud Vyatha, Shirashoola, Svarabheda, Suska Kanta Uraaasya, Suskakasa, Swasa, Daha, Mandagni, Peenasa.^{[21],[22],[23]}

Upasava

Upasaya means relieving factors of a disease. It helps in a therapeutic to plan and implement proper Ahara and Vihara practice which are ideal for treating the Vyadhi. This shows that approach towards diagnosing the disease, planning and implementation of treatment was absolutely correct.

In Ayurveda, maintenance of healthy by one's own ethical code of conduct is called "Swasthavritta" which includes Dinacharya, Ritucharya, Sadvritta.

- Dinacharya starts with Brahmamuhurta, Mala Visharjana, Snana, Dantadavana, Gandusa, Kavala, Anjana, Nasya, Dhoomapana, Abhyanga, Vyayama, Pada Prakshala, Padatradarana are the habits which has to followed to maintain healthy living and to prevent the occurance of disease. [24]
- Following the regimen according to seasonal regimen is called *Ritucharya*. According to the changes in *Ritu*, it is necessary to adopt regimen to maintain the health.^[25]
- Sadvritta is a code of conduct for keeping good and balanced condition of body and mind. Here all types of conducts like ethical, social, physical, moral in detail for the benefit of person in keeping healthy life and prevention of disease is explained. [26]
- To attain the healthy life Ayurveda concentrates on various rules and regulation in diet.
- One who is following Ashta Ahara Vishesha Ayatana, Ahara Vidhi Vidhana properly, it helps to increase health and enhance the life span.^[27]
- Vegadharana's explained in Ayurveda helps to prevent the disease occurance. [28]
- In Ayurveda the mode of transmission of disease is explained as;

प्रसङ्गाद्गात्रसंस्पर्शात्रिश्वासात्सहभोजनात् । सहशय्यासनाच्चापिवस्त्रमाल्यानुलेपनात् ॥

Here by sexual intercourse, close contact with other persons, breathing, eating together, sharing bed, and

exchanging of clothes, garlands, cosmetics can cause transmission of disease from person to person. Hence it is necessary to avoid these things to prevent spreading of disease.

Samprapti

Samprapti gives the knowledge regarding provocating Dosha, route of disease, involved Dhatus and affected Srotas and here is the probable Samprapti of COVID - 19 disease.

- Nidana Nijanidana (Mithyaaharavihara) and Agantujanidana (bhootabhishak) → Agnidusti (Jataragnimandya and Rasa Dhatwagnimandya) → Amautpatti → Amarasa formation → Uttarottaradhatu Kshaya → Ojakshaya → Khavaigunya → Vikrutadosha Stanasamsraya in particular Srotas.
- Simultaneously Amautpatti → Doshavikruti (Vata, Pitta, Kapha, Raja and Tama) → Doshadooshya Sammurchana → Vikrutadosha circulates all over the body → Stanasamsraya in particular Srotas.
- The above both Samprapti leads to Srotodusti → Sanga → Rasavaha and Swedavahasrotodusti → Sarvadehasantapa → Jwara.
- Simultaneously Samprapti leads to Srotodusti →
 Sanga, Vimargagamana → Pranavahasrotodusti
 → Urdvagamana of Udanavayu, Vikrutadosa
 takes Stanasamsraya in Urah, Kantha → Kasa,
 Swasa.
- These Lakshana Jwara, Kasa, Swasa → COVID-19

DISCUSSION

In Ayurveda the disease explaination is done through Nidana Panchaka which include Nidana, Purvarupa, Roopa, Upasaya, Samprapti, which further helps in planning of treatment. As this disease comes under pandemic disease, where this concept is explained by Acharya Charaka under the title of Janapadhwamsa, here it is explained that Adharma is the Moolakarana for this Vyadhi. As Nidana of Vyadies are broadly classified into two types i.e. Nija and Agantuja. Here Nija includes Mithyaahara Vihara and Agantuja includes Bhutabhishakjanya Nidana. These Nidana

hampers Agni which will leads to Ama formation in body. Because of presence of Ama the Vikruta Rasotpatti takes places. Simultaneously which leads to Doshaprakopa in the body. As there is absence of Prakrutarasa, Uttarottara Dhatu Kshaya takes place which results in *Ojakshaya*. Hence this disease is commonly seen in immuno suppressed person. Prakopita Doshas will circulate all over the body and get lodged in particular Srotas because of Kha Vigunyata, result in Srotodusti of particular Srotas. As disease involves Pranavaha, Rasavaha. Svedavahasrotas, Srotodusti of these Srotas will be seen in the form of Sanga and Vimargagamana. The Sanga and Vimargagamana of the Pranavaha Srotas leads to Urdhwagamana of Udanavayu and makes the Vikruta Dosha gets Stanasamshraya in Urah, Kantha Pradesha leads to Kasa, Swasa. Simultaneously Sanga of Swedayaha and Rasayaha will leads to Sarvadeha Santapa and result in Jwara.

CONCLUSION

Ayurveda, the traditional medicine of India which focuses on predictive, preventive and managing measures. Considering this disease as a global threatening, so the attention has to be given in all the aspect to prevent and manage the condition with controlling the transmission of disease. In public health problem and infectious diseases, Ayurveda undoubtfully a boon to readdress these with classical mode of treatment. This study is reviewed on the concept of understanding novel Covid-19 disease through Ayurveda in brief and its probable *Samprapti*. But the above said narrations can also be further studied to find out the relevant and suitable way of prevention and management of newly emerging public health problems in present era.

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