



Ayurvedic Perspective on Pathology of Covid 19

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ABSTRACT

Covid 19, a disease which created havoc in the world by its severe acute respiratory corona virus syndrome-2 [SARS-coV-2], rigorous studies have been taking place to study the cause, pathogenesis, symptoms, treatment protocols of the disease. Ayurveda has considered it as a type of a janapadodhwamsa, the infection is caused due to virus which in Ayurveda is considered as, bhuta[microbes] which is an agantuja hetu. [external factors]. This jivanu/microbe enters the body and affects the pranavaha srotas leading to cough and cold as primary symptoms. It manifests bhutabhisangaja jwara in the body. In later stage it becomes nija vyadhi [endogenous disease] and produces different type of jwara and targets the pranavaha srotas. This can be studied on basis of Nidana Panchak, satkriya kala, Agni, Bala, dosha Dushya samurchana in Ayurveda. These tools will help in treatment and diagnoses of disease at different stages. This study reviews the pathophysiology of covid 19 w.r.t ayurvedic concepts and methodology.

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Keywords – covid 19, janapadodhwamsa, jwara, treatment, bhuta, Nidana panchaka.

1.INTRODUCTION

Covid 19, an illness caused by novel corona virus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China. On March 11, 2020, the WHO declared COVID-19 a global pandemic.[1]

The scientists are putting lot of efforts to evaluate the cause, spread, pathophysiology, diagnosis of disease. Ayurveda has explained this pandemic under the heading of janapadodhwamsa, in order to diagnose and treat the disease one must have clear knowledge of the disease. These can be understood by concept of Nidana Panchak. This tool gives knowledge about the pathogenesis of disease. Panchak as the word suggests includes 5 components namely **Nidana** [etiology], **purvarupa** [prodromal features], **rupa** [signs & symptoms], **upashay-anupashay** [relieving & aggravating factors] & **Samprathi** [pathogenesis][2], these can be assessed by Pariksha/examination of patient which are Trivedh, ashtavidha or DashaVidha Pariksha.

Through the concept of shatkriyakala stagewise pathogenesis can be understood. These are 6 stages of pathogenesis. These are decided into dosha Kriya Kala and vyadhi Kriya Kala. Through these lines covid 19 diseases can be understood in Ayurveda.

2.OBJECTIVE

To establish the pathogenesis of covid 19 in terms of Ayurveda.

3.MATERIALS AND METHODS

All the relevant literatures including classical ayurvedic texts with their commentaries and electronic data base including google scholar, PubMed, different government health agencies websites, google search were selected to collect relevant data by using keywords- covid 19, janapadodhwamsa, Ayurveda, Nidana Panchak etc.

4.OBSERVATION AND RESULTS

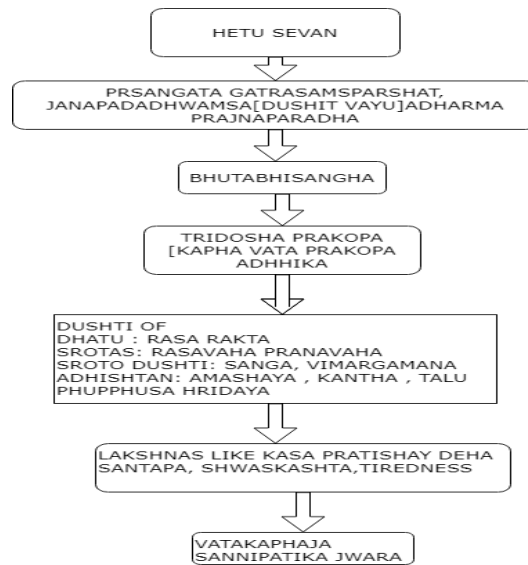
Covid-19 in Ayurveda

The ancient Ayurveda text Charak Samhita explained epidemic disease as janpadodhwamsa or maraka.[3] The factors responsible for it are vitiation of Vayu, Jala, Desha, kala & adharna.[4], Due to prajnaparadh the person cannot discriminate between Hita and Ahita leading to unconducive activities like intake of Virudha Ahara and vihara.

The invasion of bhuta[microbes] [5], develops in the atmosphere due to vitiation in Jala [water contamination], Vayu [air pollution, toxins chemicals], adharna [weapon against states/countries] destroys the mass population & plays role in establishing pathology.

Acharya Sushruta has described mode of spread of infectious disease as *oupasargika* [infectious] or *sankramika roga*[contagious][6] The disease spread from one person to another by *Prasanga* [sexual intercourse], Gatra *samsparsha* [body contact], *niswasa* [expired air] , *saha Bhojana* [sharing/eating with diseased], *saha Shaiya* [sharing bed], *vastra* [sharing clothes], *garland*, *anulepa*[sharing cosmetics].[7]

Jwara is prime symptom of covid 19 this can be correlated to bhutabhisangaja jwara due to involvement of microbes as agantuja hetu[8]. Due to progression of disease, it gets transformed into nija vyadhi with pranvahasroto dushti & manifestation of different form jwara.



Flowchart:1 Samprapti/Pathogenesis

Table :1 pathogenesis according to Nidana panchaka & shatkriyakala

SR.NO	SHATKRIYAKALA	NIDANA PANCHAK	PATHOGENESIS
1	Sanchay	Nidana	Bhutasanghatjana, aupsargika vyadhi. Asymptomatic stage of covid.
2	Prakopa		Tridosha prakopa , dosha moves from their swasthan.
3	Prasara		
4	sthansamshraya	purvarupa	Dosha moves to sthan like nasa, amashaya, kantha, phupphus, Hridya and produces kha vaigunya Mild symptoms like Kasa, pratishay , mild jwara occur
5	vyakti	rupa	Vatakaphaj sannipatika jwara ,pratamaka shwasa ,sannipatika jwara
		Samprapti	Vatakaphanubandhi sannipatika jwara
		Upashaya	Laghu, ushna , tikta,katu rasatmaka , nasya gandusha
		anupshay	Guru ruksha shita ahara vihara.
6	Bheda		Chinnashwasa, sheshmika jwara ,urdhwashwas

PROGNOSIS

Prognosis in janapadadhvamsa is daruna [not good][9]

Depending on rogi bala , vyadhi bala prognosis can be mild, moderate, severe.

PREVENTION & MANAGEMENT

AYURVEDA considers covid 19 as bhutabhisangaja I.e., disease caused by microbes, adhama is one of the etiological causes, hence proper hygiene should be maintained.[10] As explained in text it's a aupsargika/sankramika vyadhi hence social distancing should be maintained, using shared clothes, plates, food should be avoided.

Vyadhishamatva should be increased in order to prevent infection even after exposure of the disease.

For management of disease shodhan as well shaman aushadhi can be given.

This will depend on dosha dushya involvement, sharir bala & severity of the disease. Lakshanic chikitsa should be given.

Dietic regimen should be followed. rasayana can be consumed for increasing strength of the body.

Table-3 Ayush guidelines for covid management [11]

Clinical severity	medicines	Dose and timing
Prophylactic care (high risk population, primary contacts)	Ashwagandha (Aqueous extract of Withania somnifera IP) or its powder	500 mg extract or 1-3 g powder twice daily with warm water for 15 days or one month or as directed by Ayurveda physician
	Guduchi ghana vati (Samshamani vati or Giloy Ghana vati having Aqueous extract of Tinospora cordifolia IP) or the powder of Tinospora cordifolia	500 mg extract or 1-3 g powder twice daily with warm water for 15 days or one month or as directed by Ayurveda physician
	Chyawanaprasha	10 g with warm water / milk once a Day

- Nasya- nasal drops of cow's ghee, sesame oil or medicated oil, to prevent virus entry and to increase strength of nasal mucosa.
- Rakshoghna medicine- preventive measures against small germs- Dhupam with guggul (Commifera mukul), agaru, Tulsi, nirgudi, tejpan, Ela (cardamom), twak (cinnamon), camphor etc., and medication.
- Daily practice of Yogasana, Pranayama and meditation for at least 30 minutes as advised by Ministry of AYUSH
- Steam inhalation with fresh Pudina (Mint) leaves or Ajwain (Caraway seeds) can be practiced once in a day.
- Following dincharya, ritucharya , ashta aharvidhivishesh ayatana.

6.CONCLUSION

The covid 19 pandemic has made lot of damage to the lives of the people. Healthcare sector have been working hard to break the chain of covid 19. Various theories have been proposed by scientist all over the world. Ayurveda has laid down its approach on the basis of Nidana Panchak, shatkriya kala. By understanding these tools one can assess the pathology, prognosis, diagnosis of stages of covid 19 disease and provide best medical support in management and treatment.

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