



## **ROLE OF AYURVEDA FOR THE MANAGEMENT OF COVID-19 A CASE STUDY**

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### **ABSTRACT**

Corona virus disease (Covid-19) is an infectious disease caused by a newly discovered corona virus. It affects different people in different ways. The most common diagnosis in severe covid 19 is severe pneumonia.

A case of 48 year female patient was suffering from covid 19. According to Ayurveda, patient was considered suffering from Vatkaphaj Jwar (1) in earlier stage and later it converts in to Sannipatik Jwar. (2) She was treated by oral Ayurvedic medications such as , Mahasudarshan ghan vati, Tribhuvan kirti Ras, Suvarnatshekhar, Lakshmvilas vati according to the stage of the disease.

The mode of action of treatment was studied by taking clinical signs & symptoms recorded in a special case paper.

The study shows the successful management of Covid 19 with Ayurvedic management.

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### **INTRODUCTION**

Covid 19 is a rapidly spreading global threat that has been declared as a pandemic by the WHO. Covid 19 is transmitted via droplet or direct contact and attacks on the respiratory tract resulting in pneumonia in most of the cases. Acute respiratory distress syndrome (ARDS) in about 15% of the cases.

Mortality of the covid 19 patients has been linked to the presence of cytokine storm induced by virus. Excessive production of inflammatory cytokines leads to ARDS, aggravation and widespread tissue damage resulting in multi organ failure and death.

According to ayurveda, in the preliminary stage after viral attack, vat and kaph doshas are vitiated resulting in vatkaphaj jwar (1). As the disease progresses samprapti (pathogenesis) goes deep, involvement of multiple organs. The condition may be correlated with stage of 'dhatupak' i.e. sannipat avastha as sannipat jwar.(2)

Again diagnosis may be 'Aagantuj jwar' as in Covid 19 corona virus is aagantuj agent.(3).

Covid 19 is also considered as Sansargajany roga (communicable disease.) i.e. 'Aupasargik vyadhi' (4) causing epidemic or pandemic infection as 'Janpadodhwansa vyadhi' explained.

Clinical presentation have been analysed on the basis of nidan, dosha, dushya, Shatkriyakal to present a preliminary clinical profile of the disease.

#### **Present Complaints with Clinical Findings**

A 48 year female Indian married patient approached for complaints of fever, general weakness, headache, calf muscle pain, Rt.knee joint pain ,anorexia on 29th July 2020.

#### **On Examination**

- 1) Nadi-Jalad (Tachycardia)100/min.
- 2) Mal -malavrodh(constipation)
- 3) Mutra-prakrut(normal)
- 4) Jivha-Sam(coated)
- 5) Sparsh-Ushna(febrile)
- 6) Druk(vision)-prakrut (normal)
- 7) Aakruti (posture)-madham-medium
- 8) Agni -agnimandya (weak digestive power)
- 9) Kostha-madham
- 10) Satva-madham
- 11) Prakruti-kaphaprdhan vat

All the symptoms denotes aamavastha and vatkaphaj jwara.

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Vikruti Parikshan  
Pindikodweshtan (severe calf muscle pain), headche, Rt.Knee joint pain, anorexia, general weakness.  
Fever- 100F.  
SpO2-96-98%

4/9/20.

Slight cough in the chest  
R.S. Rhonchi  
Dry cough  
Agnivardhan  
SPO2 99%  
Temp 98.7F  
Chikitsa.  
1) Amrutuyog  
2) Mahasudarshan Vati  
3) Lakshmiivilas Vati(Nardiya)  
4) Lakshminarayan  
5) Tribhuvankirti

Table 1

Date & year.	Clinical event with Management		
29/8/2020.	Fever, headche, Pindikodweshtan, Rt.knee joint pain, Anorexia, general Weakness, Temp.100F SpO2-96-98% Chikitsa. 1) Amrutuyog 2) Mahasudarshan Vati 3) Lakshmiivilas Vati(Nardiya)		
30/8/2020.	Jwar reduced, Rest symptoms are as it is. Temp.99F SpO2-97-98% Chikitsa. 1) Amrutuyog 2) Mahasudarshan Vati 3) Lakshmiivilas Vati(Nardiya)	5/9/20.	Prushthshool (Backche) Angamarda (Bodyche) General weakness, SPO2 99% Temp.98.6 F Chikitsa. 1) Amrutuyog 2) Mahasudarshan Vati 3) Lakshmiivilas Vati(Nardiya) 4) Lakshminarayan 5) Tribhuvankirti
31/8/2020.	Jwar reduced, Pindikodweshtan reduced, Rt.knee Joint pain reduced Rest as it is Temp.98.7F SpO2 -94% Chikitsa. 1) Amrutuyog 2) Mahasudarshan Vati 3) Lakshmiivilas Vati(Nardiya)	6/9/20.	No fever, Bodyche, General weakness Dry cough, Dysosmia ( Loss of taste) SPO2 99% Temp 98.6 F Chikitsa. 1) Amrutuyog 2) Mahasudarshan Vati 3) Lakshmiivilas Vati(Nardiya) 4) Lakshminarayan 5) Tribhuvankirti
1/9/2020.	High grade fever, In the morning, Severe headche, Anidra, Netradah, Temp.102F, SpO2-94% Chikitsa. 1) Amrutuyog 2) Mahasudarshan Vati 3) Lakshmiivilas Vati(Nardiya) Tab.paracetamol 500 mg stat. After 1 hr.fever reduced.		Kadunimb, (Azadiracta indica) 40 leaves+Tulsi (Ocimum sanctum) 20 leaves+half teaspoon Haridra in a glass of water (250ml), decoction was done & taken 2 times for next 3 days. i.e.7th,8th,9th September. *General weakness reduced, Bodyche reduced, Joint pains reduced.
2/9/2020.	High grade fever in the afternoon, Severe headche,Netradah Snezzing, Shukpurngalasyta, (Sore throat) Temp.103 F, SpO2-96% Chikitsa. 1) Amrutuyog 2) Mahasudarshan Vati 3) Lakshmiivilas Vati(Nardiya) 4) Lakshminarayan 1 hourly,4 times 5) Tribhuvankirti In the evening, temp reduced. At mid night,again High grade fever, Headche, Netradah, Giddiness, Temp-102F, SpO2-96%, Lakshminarayan taken	10/9/20.	No fever, Slight fatigue, Taste & smell were not till generated. Chikitsa. 1) Amrutuyog 2) Mahasudarshan Vati 3) Lakshmiivilas Vati(Nardiya) 4) Lakshminarayan 5) Tribhuvankirti 6) Dhumpnan -Jatamansi,Shunthi, Guggulu, Vekhnd 7) Jalneti 8) Shunthi prdhman nasya was done. Taste & smell fully regained Chikitsa. 1) Amrutuyog 2) Mahasudarshan Vati 3) Lakshmiivilas Vati(Nardiya) 4) Lakshminarayan 5) Tribhuvankirti continued for 3 weeks. Rasayan chikitsa- Suvarnsutshekhhar matra,10 roundsPer day, Rasayan kal SPO2 98-99%
3/9/2020.	In the morningTemp. reduced, Netradah slight, Severe general Weakness Temp,99F, SpO2-96 Chikitsa Along with Prevoius medicines 1) Tab.Icchabhedi 125mg+4 tsf ghrut in the morning , 4 drvamalpravrutti (Loose motions) Symptoms slowly reduced. Headche subsided, Jwar reduced. SpO2 97% Temp 99F	12/9/20.	

On 28th day from infection, Covid Antibody IgG test was done, which is positive Antibody index was 4.48.

#### Diagnosis according to Ayurveda

In this particular case, the diagnosis was initially made ,based on her signs and symptoms. Since Covid 19 diagnosis had not yet been made, I looked at the symptoms as those of a vat kapha predominance and gave appropriate medicines ,diet and regimen. The patient was myself. Though I was already

following social distancing and safe hygiene practices, I feel I might have contacted it from one of my patients despite maintain distance in the clinic. I quarantined myself in my home on the suspicion of the possibility of a Covid 19 infection. My clinic is attached to my home.

According to the earlier symptoms such as mild fever, headache, calf muscle pain, knee joint pain, heaviness, anorexia, coated tongue. It looked like vat kapha jwar. Headache, calf muscle pain, knee joint pain denotes vitiation of vat dosha and Anorexia, heaviness, coated tongue denote vitiation of kapha dosha. Initial 3 days it seems like vat kapha jwar and treatment was given accordingly.

The process through which the disease is manifested is called as Samprapti (pathogenesis). Up to this level, two stages of samprapti, i.e. Chay and prakop are completed. (6) On 4th day, there was high grade fever, burning of eyes along with previous sign and symptoms. Here was the Prasar stage of samprapti. Doshas expel out from their own sthanas. It is the stage of dissemination of doshas. (7) In this stage, vat and kapha dosha spread all over the body, systems of the body. They enter into the zones of other doshas i.e. there is anubandh of pitta dosha. Here dosh dosh samurchana occurs. Hence there are all the signs and symptoms of vitiation of tridoshas... i.e. Vat, Pitta and Kapha.

Headache, anamarda-Vat dominance.

High grade fever, burning of eyes-Pitta dominance

Sneezing, pratisshay, Shukpurngalasya (sore throat)-Kapha dominance.

These vitiated tridoshas get localised in a particular tissue, organ, system whose defence mechanism is weak (khavaigunya)(8). This stage is a stage of sthansamshraya. (9). The concentration of doshas in this particular disease is in a pranvahstrotas (respiratory system) is much more. This is the stage of dosha dushya sammurchana. i.e. entry of doshas in the tissues of pranvah strotas. Symptoms are accordingly, such as cough, pratisshay, shukpurngalasya (sore throat), Hearing of rhonchi after auscultation of the chest. It is the representation of biochemical and biophysical changes.

After this stage, all the manifestation of the disease are seen i.e. Vykri stage(9), trotodushti occurs.

In this particular case, the overall signs and symptoms are as follows...

High grade fever

Agnimandya (anorexia)

Cough

Sore throat

Pratisshay (sneezing)

Severe bodyache

Backache

Headache

Burning of eyes

Malavsthambh(constipation)

Joint pains

Loss of taste

Loss of smell

General weakness.

Thus, clinical manifestations give an important clue of the diagnosis. In this case, all the symptoms are related with Covid 19 pandemic.

In this case study, the diagnosis was initially made, based on sign and symptoms. As covid 19 diagnosis had not yet been made.

In this particular case, the final diagnosis was, Aagantuj Sannipataj jwar of vat and kapha predominance.

Due to,

Nidanseven (causitive factor) i.e. infection of corona virus, (krimi), krimisansargaj amotpatti occurs. Krimis attack on such tissue cells which has weak immunity power. i.e. (khavaigunya). Corona virus has a strong affinity to propagate towards pranvahstrotas. Doshadushya sammurchana occurs, sthansanshray takes place, disease is manifested.

Hetu-Corona virus, agantuj hetu

Dosha- Vat Kapha, pittanubandh

Dushya-Ras, Rakta

Rogmarga- initially, abhyantar

At the stage of bhedavastha- madham marga.

### Ayurvedic Management

#### 1) Mahasudarshan ghan vati

- Contents - rifala, trikatu, yashti, ajmoda, haridra, daruharidra, panchkol, vasa, kantkari.
- Dose-2 tabs vyanodan kali (BD after meal)
- Anupan-koshna jal. (Lukewarm water)
- Duration-21 days

#### 2) Lakshmvilas (Nardiya)

Contents- Abhrak, Gandhak, karpoor, bala, Shatavari, jaypatri.

- Dose-2 vyanodan kal
- Anupan-Lukewarm water
- Duration-21, days

#### 3) Tribhuvankirti vati

- Content-Hingul, Pimpali, Bachnag, Tulsi, Dhatur, Aale
- Dose-2 vyanodan kal
- Anupan-Lukewarm water
- Duration-21 days

#### 4) Lakshminarayan ras

- Content-rassindoor, Bachnag, tankan, ativisha, Pimpali, abhrak Bhavna- Dantimool
- Dose- 60mg.
- Anupan-madhu, chatan
- Duration-Only when high grade fever.

#### 5) Amrutiyog

- Contents- yashti, guduchi, Kantakari, Shunthi, Tulsi, Lavang.
- Dose-500 mg
- Duration-28 days

#### 6) Suvarnsutshekhar

- Contents-Suvarn bhasma, Parad, gandhak, Tamra, Vatsanabh, dhatura seed,
- Shankha bhasma, suntha, Marich, pippali, Dalchini, Elaichi, Nagkeshar

#### 7) Icchabhedi ras

- Contents-Parad, gandhak Shunthi, Jepak, limbu ras bhavana
- Dose- once 1/2 tablet, means 60 mg.
- Anupan -Ghrut

8) **Nimb leaves** ,40 Tulsi leaves, 20 Haridra churn,5 gm. Decoction was done in 250ml of water.

- Dose-30ml,2 times
- Duration-3 days.

## DISCUSSION

According to the Ayurvedic perspective, Covid 19 is a "Sannipat jwar of Vat Kapha dominance of Aagantu origin with Pittanubandha". The choice of medicines is aimed at maintenance of agni(10)as well as aampachan in order to prevent the progression of the pathogenesis in its initial sanchay,prakop and prasara stage.Concept of Agni in Ayurveda is very deep, it not onlt includes Aaharpachan but also metabolic events such as energy synthesis and metabolic maintainance.Again Agni is the most important factor of vydhikshmatva (immunity). Hence first line of treatment is agnivardhn and Aampachan. Rasaushdhi are shown to have better bioavailability and absorption through sublingual and oral route as they made by sukshmikaran method so that they become more absobable and assimilated by the body quickly. In the initial stage of the disease, All the symptoms denote Aamavstha.(Sam jwar).Hence ,Mahasudarshan ghan vati works as a Aampachan, eliminates ama from the body,acts as antipyretic. Lakshmivilas guti helps for kaphashaman as well as acts as a rasayan (improves immunity).

Contents of Amrutyog, yastimadhu, kantakari helps for kaphashaman; shunthi works as a aampachan; Dalchini,lavang helps for agnidipan as well as kaphashaman. Tulsi acts as a jwaraghna as well as antiviral. Guduchi helps to improve immunity.

On fourth day,there was a high grade fever, Lakshminarayan was used which is the best kalpa for sannipata jwar. At the stage of, sthansamshraya, symptoms were cough,sneezing fever,cold ,so Tribhuvankirti vati is used which is the best kalpa for vatkaphaj jwara. On the 6th day, body pain backche , headache persist.There was a malavstambh since 3 days, So according to the Acharya Vagbhata, when there was a pain and malavrodh in vatkaphaj jwar, Virechak dravya should be used.(12).

Hence to overcome these symptoms,I took Icchabhedi vati. There were four loose motions happened. Virechana helps for malvatanuloman.Again virechana is the choice of treatment in jwar. All the vitiated doshas eliminated from the body.Body becomes light. Pain also releived due to Vatanuloman.Again due to Shodhan, aamnirharan has been also done, hence fever was subsided after virechana.

Nimb,Tulsi and Haridra are the best antiviral drugs, So decoction of these three dravyas was made. It helps to remove viral load and debris from the body. It also helps as antiinfectant, antimicrobial and antipyretic...

Lastly, Suvarnsutshekhar was taken as a rasayan.It also acts as Vishghna. Thus, treatment works in all three rogmargas. It gives coverage to all margins. Each kalp has it's particular action at a particular site. Along with this treatment, a regular diet played an important supportive role in the cure of the disease. Regular pathya did not further aggravate doshas, It was easy to digest, stimulated the digestive fire(agni) and nourished the body.

## CONCLUSION

Very good responce was noted. On 28th day of infection, Covid antibody IgG test was positive with index 4.48.

It means that an ayurvedic assessment of the disease and the choice of medicines is aimed in order to prevent the progression of the pathogenesis in its initial stage of sanchay, prakop, prasar stage.

This illustrates that there is a wide scope to explore the variety of ayurvedic medicines. When focussed ayurvedic treatment if given, may prevent the further more critical condition. In my case, the disease presentation was not mild, However I did not become critically ill owing to Ayurveda intervention.

Since this is a single case study, it calls for a larger sample to be studied.

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