Post Covid Effects on Annavaha Srotas W.S.R to Manasika Bhava

Dr. Anu. S. Prasad[1], Dr. Ranjitha[2], Dr. A. S. Patil[3]

[1]Final Year PG Scholar, [2]Assistant Professor, [3]Professor,
[1,2,3]Govt. Ayurveda Medical College, Bengaluru, Karnataka, India

ABSTRACT

Coronavirus disease 2019 (COVID-19) was the burning pandemic which we have witnessed in the nearby time. Long COVID or long-haul COVID (also known as post-COVID-19 syndrome, post-COVID-19 conditions post-acute squeal of COVID-19 (PASC) or chronic COVID syndrome (CCS) is a condition characterized by long-term health problems persisting or appearing after the typical recovery period of COVID-19. The long COVID may affect any srotas. As we can consider COVID as a sankramika roga and later it manifest as jwara there will be a definite involvement of annavaha srotas can be inferred. Since the COVID period dealt with more of lockdown, isolation period and all there will be definitely the involvement of manas. So in this present article an attempt to route the involvement of annavaha srota in post COVID cases wsr to manasika bhava is done.

AIMS AND OBJECTIVES:

1. To analyse the role of *manasika bhava* in post covid syndrome on *annavaha sroto dushti*

MATERIALS AND METHODS:

Minimum of 120 patients those who have tested RT-PCR positive for COVID-19 also those who had symptoms of COVID-19,after 14 days were selected for the study randomly, irrespective of their religion, educational background, and economical status. The study was done by using a structured questionnaire.

RESULT

The study showed that the manasika bhava have relation with the post COVID syndrome especially in annavaha srotas.

KEYWORDS: COVID, Post-COVID, annavaha srotas, manasika bhava, ama

INTRODUCTION

Coronavirus disease 2019(COVID-19) was the burning pandemic which we have witnessed in the nearby time. The first known case was identified in Wuhan, China, in December 2019.The disease quickly spread worldwide, resulting in the COVID-19 pandemic. Long COVID or long-haul COVID (also known as post-COVID-19 syndrome, post-COVID-19 conditions post-acute squeal of COVID-19 (PASC) or chronic COVID syndrome (CCS) is a condition characterized by long-term health problems persisting or appearing after the typical recovery period of COVID-19[1]. Although studies into long COVID are under way, there is no consensus on the definition of the term. Long COVID may affect multiple organ systems, including disorders of the respiratory, cardiovascular, gastrointestinal and nervous systems, mental health, metabolism, musculoskeletal pain, and anaemia.

Long COVID has no single, strict definition.
Ayurveda being in the forefront of health care of the ancient times, has recorded experience of epidemics and termed them as janapadhodhwamsa[2] or maraka[3].We can consider COVID -19 as aganthuja jwara[4],abhishangaja jwara[5],janapadhodhwasaka roga and aupasargika vyadhi/sankramika roga[6]. Since it is caused by virus it can be considered as agantuja jwara. Chakrapanidatta clarifies that the bhoota that is coming under the classification of agantuja jwara means vishakrimi or virulent organism[7]. Thus it can be considered as aganthuja jwara. Later on this aganthuja jwara will be manifested as a nija jwara. Abhishangaja jwara which

is one among aganthu jwara is caused by the contact of poisonus air or toxic plants or other such toxins[8]. So in case of COVID-19 we all know that it is a droplet infection, where the air is polluted. So in that way it can be considered as abhishangaja jwara. Janapadhodhwamsa means pandemic ie; communicable disease that affect the whole country or whole world .So in that aspect we can consider COVID-19 as a janapadhodhwamsaka roga. Contagious diseases are generally classified under aupasargika vyadhi, and hence it can be considered as aupasargika vyadhi also. In all above context the derangement of agni will happens for sure.

For any disease to manifest and to reach its optimum strength, the immune system of the patient plays an important role. That is nothing but vyadhikshamatwa[9] in Ayurveda. Again there is a close relation between vyadhikshamatwa and agni. So if a person is having deranged vyadhikshamatwa they are prone for more severe lakshanas of particular disease and it will take time to get fully recover from the disease.

According to Ayurveda COVID can be considered as vata kapaha jwara .In jwara derangement of agni can be identified. So from the manifestation of jwara to its expression, its severity, its duration everything is related to agni; we can suspect annavaha sroto dushti lakshana's[10] here. And also during quarantine period of COVID-19 patients have experienced mental stress. In Charaka samhitha vimana sthana second chapter it is explained that the manasika bhava affects the agni and cause ama condition[11].

AIMS AND OBJECTIVES
To analyse the effects on annavaha sroto dushti in Post COVID cases in association with manasika bhava

MATERALS AND METHOD
The patients registered frpm the OPD and IPD of Shri Jayachamarajendra Government Ayurveda and Unani Hospital Bengaluru are the primary source of data. Here systemic sampling technique is used and the selection is made systematically and randomly on the basis of inclusive criteria which are defined in the protocol.

Method of collection of data
Minimum of 120 patients those who have tested RT-PCR positive for COVID-19 also those who had symptoms of COVID-19,after 14 days were selected for the study randomly, irrespective of their religion, educational background, and economical status. The study was done by using a structured questionnaire.

OBSERVATION AND RESULTS:
OBSERVATION RELATED TO GIT AFTER 14 DAYS
Distribution of patients according to Hunger:
Table 1: Distribution of patients according to Hunger:

Hunger	No: of patients	Percentage
Good	56	46.7%
Moderate	62	51.7%
Mild	2	1.7%

It is observed that among 120 patients, 46.7% had good hunger, 51.7% had moderate hunger and 1.7% had mild hunger after 14 days of COVID.

Distribution of patients according to the time taken for hunger to regain:

Table 2: Distribution of patients according to the time taken for hunger to regain:

Time taken for regaining hunger	No: of patients	Percentage
1 week	11	17.2%
2 week	30	46.9%
3 week	14	21.9%
1 month	6	9.4%
1-1.5 month	3	4.7%

It is observed that among 120 patients, 64 patients had reduced hunger even after 14 days of COVID and among that 49 patients 17.2% took 1 week to regain their hunger, 46.9% took 2 weeks to regain their hunger 21.9% took 3 weeks to regain their hunger 9.4% took 1 month to regain their hunger and 4.7% took 1-1.5% to regain their hunger.

Distribution of patients according to food intake:
Table 3: Distribution of patients according to food intake:

No: of food intake	No: of patients	Percentage
3 times	57	47.1%
3 times in reduced quantity	50	41.3%
2 times	14	11.6%

It is observed that 47.1% were taking 3 times food, 41.3% were taking 3 times in lesser quantity and 11.6% were taking 2 times after 14 days of COVID.

Distribution of patients according to time taken to come back to the normal food intake:

Table 4: Distribution of patients according to time taken to come back to the normal food intake:

Time taken for coming back to normal food intake	No: of patients	Percentage
Around 1 week	14	21.9%
Around 2 week	38	59.4%
Around 3 week	12	18.8%

It is observed that among 120 patients, 64 patients were taking food in reduced quantity after 14 days of COVID. Among those 64 patients 21.9% started taking food 3 times after 1 week, 59.4% started taking food 3 times after 2 weeks and 18.8% started taking food 3 times after 3 weeks.

Distribution of patients according to the regaining of taste:

Table 5: Distribution of patients according to the regaining of taste:

Regaining of taste	No: of patients	Percentage
Regained within in 14 days	82	100%

It is observed that among 120 patients,82 patients had suffered from loss of taste and among that 82 patients,100% of patients regained the taste within 14 days of COVID.

Distribution of patients according to vomiting:

Table 6: Distribution of patients according to vomiting:

Vomiting	No: of patients	Percentage
No Vomiting	120	100

It is observed that among 120 patients, no one complaints of vomiting after 14 days of COVID.

From the above findings 60.8% of population didn't had sound mental health during lockdown period. Along with this factor the ahara and vihara that these patients taken also influenced their digestion. Most of the population in the sample were not actually that much aware about the food intake during lockdown as well as during the COVID time. This along with the mental factors have adversely affected the annavaha srotas even after the COVID.

OBSERVATION REGARDING MANASIKA BHAVA:
Distribution of patients according to Diagnosed with mental illness:

Already diagnosed with mental illness	No: of patients	Percentage
Yes	2	1.7%
No	118	98.3%

It is observed that among 120 patients 1.7% was already diagnosed with depression and 98.3% were not diagnosed with any sort of mental illness.

Distribution of patients according to mood swing:

Mood swing	No: of patients	Percentage
Yes	49	40.8%
No	71	59.2%

It is observed that among 120 patients, 40.8% are having mood swings and 59.2% don't have mood swings

Distribution of patients based on Mood swings hampering of day to day activity:

Whether hampering day to day activity	No: of patients	Percentage
Yes	11	22.4%
No	38	77.6%

It is observed that among 120 patients, 49 patients are experiencing mood swings and among those 49 patients for 22.4% the mood swings are affecting their day to day activity and for 77.6% the mood swings are not affecting the day to day activity.

Distribution of patients according to the Lock down mental wellness:

Sound lock down mental health	No: of patients	Percentage
Yes	73	60.8%
No	47	39.2%

It is observed that among 120 patients 60.8% had sound mental health during lock down and 39.2% had some disturbances mentally during lock down period.

Distribution of patients according to Depression:

Depression	No: of patients	Percentage
Mild	40	33.3%
Moderate	7	5.8%
Severe	0	0
NIL	73	60.8%

It is observed that among 120 patients, 33.3% had mild depression, 5.8% had moderate depression and 60.8% had no depression during COVID.

Distribution of patients according to Sadness:

Sadness	No: of patients	Percentage
Mild	79	65.8%
Moderate	17	14.2%
Severe	1	0.8%
NIL	23	19.2%

It is observed that among 120 patients, 65.8% had mild sadness, 14.2% had moderate sadness, 0.8% had severe sadness and 19.2% had no sadness.

Distribution of patients according to Anger:

Anger	No: of patients	Percentage
Mild	46	38.3%
Moderate	8	6.7%
Severe	0	0
NIL	66	55%

It is observed that among 120 patients, 38.3% had mild, 6.7% had moderate and 55% had no anger issues during COVID.

Distribution of patients according to Confusion:

Confusion	No: of patients	Percentage
Mild	35	29.2%
Moderate	0	0
Severe	0	0
NIL	85	70.8%

It is observed that among 120 patients, 29.2% had mild confusions and 70.8% had no confusion during COVID.

Distribution of patients according to loneliness:

Loneliness	No: of patients	Percentage
Mild	40	33.3%
Moderate	4	3.3%
Severe	2	1.7%
NIL	74	61.7%

It is observed that among 120 patients, 33.3% had mild loneliness, 3.3% had moderate loneliness, 1.7% had severe loneliness and 61.7% haven't felt loneliness during COVID.

Observation based on how long the above said mental disturbances persisted:

Duration of the above disturbances	No: of patients	Percentage
Normal after the quarantine period	108	95.6%
Around 1 month	3	2.7%
Still persists	2	1.8%

It is observed that among 120 patients only 113 patients had the above said mental disturbances and among them, 95.6% have recovered from the above said mental disturbances once they completed the quarantine period, 2.7% have recovered after 1 month and for 1.8% it still persists.

Distribution of patients according to whether the mental health got affected the day to day activity:

Affected day to day activity	No: of patients	Percentage
Yes	5	4.4%
No	108	95.6%

It is observed that among 120 patients, for 113 patients there were mental disturbances during COVID. From that, 113 patients, for 4.4% it affected their day to day activities and for 95.6% it didn't affect their day to day activities.

From the above findings we could understand most of the people in the sample were facing some sort of mental health issues. So definitely there will be ama formation. Along with this factor the ahara and vihara that these patients taken also influenced their digestion. Most of the population in the sample were not actually that much aware about the food intake during lockdown as well as during the COVID time. This along with the mental factors have adversely affected the annavaha srotas even after the COVID.

CONCLUSION:
At the verge of completion of this study final conclusion drawn on the basis of deductive reasoning of data from this study are:

➢ COVID the dreadful pandemic that we witnessed can be correlated with the janapadhoshwamsaneeya.

➢ COVID can be considered aganthuja jwara, abhishangaja jwara, aupasargika roga.

➢ The post COVID syndrome can be considered as the upadrava of aupasargika vyadhi.

➢ The annavaha srotodushti that is present during post COVID is because of the combined effect of mansika bhava that the patient have gone through during COVID and lockdown period, the aharas and viharas that the patient have taken during COVID and because of the agnimandya that is seen during jwara.

➢ The mental disturbances that the patient have gone through during COVID time and lock down as well as the quarantine period will affect the digestion because the food which is taken by the patient while they are exposed to factors shoka, krodha, bhaya etc will be contributing in the formation of ama and thus produce annavaha sroto dushti.

➢ Since jwara is present as lakshana, due to its effect also there will be anannabhilasha and arochaka like annavaha srotodushti lakshana.

➢ The heavy food that is consumed by the patients when both the above factors are present will also affect the annavaha srotas and cause annavaha sroto dushti.

➢ COVID virus has more affinity towards the ACE-2 receptors and since its concentration is more in the GI tract and we can explain the effect of annavaha sroto dushti via modern view.

➢ Gut brain axis also explain the effect of annavaha sroto dushti in post COVID cases.

➢ In the present study the result shows that most of the patients have gone through anannabhilasha, arochaka and avipaka among annavahasrotodushti lakshanas.

➢ In the study only two patients had previous history of depression and for those two patients they have developed IBS kind of symptoms. On favourable condition, these patients are getting loose stool like symptoms.

➢ As it is a survey study and due to the small sample size it cannot be concluded accurately the effect of COVID in Annavaha srotas.

➢ The present study was carried out on small sample for a limited time. However to be more confirmative, further analysis should be conducted on large sample.

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