

Siddha Therapeutics in the Management of COVID-19: A Review

Gomathi. R*¹, Preetheekha. E¹, Lakshmikantham. T¹, Meenakumari. R²

¹ Department of Maruthuvam, National Institute of Siddha, Tambaram Sanatorium, Chennai - 47.

² National Institute of Siddha, Tambaram Sanatorium, Chennai - 47.

Abstract

Siddha clinical profile of COVID -19 is a pre- requisite to develop standalone and integrative approaches. Siddhars have enunciated the principles of identifying and diagnosing the diseases and described the main sources and channels of their origin. As COVID-19 involves exceptionally high proportion of population, availability of minimal services and drug treatment highlights a need to manage the disease. A preliminary clinical profiling of COVID – 19 is based on review of classical Siddha literatures with inputs from allopathic clinicians treating COVID-19 patients are discussed in this paper. The typical clinical presentation of COVID -19 is categorized based on “Interim clinical guidelines for management of patients with COVID – 19” released by the US CDC and various Siddha classical literatures are used for the correlation of symptoms to arrive a preliminary clinical profile of COVID-19. The COVID-19 can be provisionally understood from the Siddha perspective as *Seethasuram (Kabasuram)*, *Seetha sannisuram*. The mild and uncomplicated symptoms, moderate symptoms, critical stages of COVID-19 with varying clinical presentation have been analysed on the basis of three humours to present a preliminary clinical profile of the disease.

In this paper, we have demonstrated that a preliminary clinical profiling of COVID – 19 in the Siddha perspective is possible through literature review supported by Allopathic classification of symptoms. This paper brings a new research avenue in the treatment of COVID-19. It would be a timely initiative for the treatment of COVID – 19 as it provides unexplored potential in adapting integrative approaches.

Keywords: *Seetha suram, Kabasuram, Siddha medicine, COVID – 19*

*Corresponding author:

Gomathi. R, PG Scholar, Department of Maruthuvam, National Institute of Siddha, Tambaram Sanatorium, Chennai - 47.

E-mail: kgmgomathi@gmail.com.

Introduction

Corona virus disease 2019 (COVID-19) is defined as an illness caused by a novel corona virus called severe acute respiratory syndrome corona virus 2 (SARS-CoV-2; previously called 2019-nCoV), which was first identified amid an outbreak of respiratory illness cases in Wuhan City, Hubei Province, China^[1]. It was categorized as a pandemic infection by the WHO. Siddha, an ancient medicinal practice followed on the basis of literature written by Siddhars. All the Siddha literatures have been written in the Classical language Tamil (South Indian language) spoken by the inhabitants of the Indian states - Tamil Nadu, Southern regions of Kerala and the Union territory of Pondicherry. Siddha is also popular in countries like Sri Lanka^[2], Singapore, Malaysia and Mauritius.

Siddhars have enunciated the principles of identifying and diagnosing the diseases and described the main sources and channels of their origin. The rational basis upon which they have proceeded to analyse the physiological processes is indeed admirable. It is needless to say that the studies of the diseases, their causes and their course as conceived by the Siddhars have scope for further research. The *Mukkutram* (Tridosham or three humours) theory is the basis of classification of the human body^[3]. In COVID-19, the kutrams (doshas) vary with the symptoms of the disease. So, the

management of COVID-19 relies on correcting these altered kutram at each stage of disease.

The first line of treatment in Siddha system relies on herbs but if the course of the disease worsens higher order medicines become the right choice for faster relief. In Siddha system of medicine, the use of formulations containing metals and minerals are predominant and unique^[4]. The methods of preparation of higher order medicines like *kattu*, *kalangu*, *chunnam*, *parpam*, *chenduram*, etc. cannot be ignored though they seem to be tedious. The principles behind the preparation of Siddha medicines are scientific which should be followed strictly. The main aim of this review is to highlight some of the herbal and higher order medicines of Siddha system in the treatment of COVID-19 at its each stage.

For the purpose of Siddha interventions, the people are segregated into the following groups majority of cases 80% with mild symptoms, 13% with pneumonia (moderate group), 5% suffering from septic shock and organ failure (severe with pneumonia and hypoxia), 2% cases (critical) fatal^[5]

Mild and Uncomplicated COVID-19 Symptoms Group:^[6]

This group includes people with symptoms of acute upper respiratory tract infection (fever, fatigue, myalgia, cough, sore

throat, running nose, sneezing) and digestive problems (nausea, vomiting, abdominal pain, diarrhoea). As per Siddha concept, mild symptoms are due to derangement of *vatham*, which is mentioned in the text *Noinadal*.

“*Vaathamenum naadiyathu thondril
Seethamanthamodu vayiru porumal
thiratchivaayu Seethamurun kiraani*”

From the above stanza, increased *vatham* may lead to *vayiruporumal* (flatulence), *thiratchivaayu* (distended abdomen), *seetham* (chills with rigor), *kiraani* (diarrhoea).

“*Vaathamae kathithaa pothu vanthidum
sannithodam*

According to Siddhar *Thirumoolar*,

“*Kai kaal kulachuvilaasanthu
Pariyananonthu udal pachaipunaagumae*”

This indicates myalgia that occurs in relation to *vathadosha* in covid patients.

“*Oonappakulirumkaaichal
Udambellamkuthum vaayu*” [3]

According to the Siddhar text, increased *vatham* leads to fever with chills.

“*Sorubamaainenjuthanilthinavuundaagi
Sevithanilaeiraichallumarosagamum
Marupapannikeelmoochumaarpalavathaaki
Manniyaenenjalavaaazhalumsuvaasam
Thurupamaaimoochathigairumalkoozhai
Thooithaanavaathakaasathinseerae*” [7]

As per the above stanza, deranged *vatham* causes severe throat pain, ear pain, tinnitus, loss of taste, nasal block, cold, persistent cough with expectoration.

Treatment:

The mild symptoms of Covid-19 are due to derangement of *vatham*. To correct *vathakutram*

a) *Notchi kudineer* 40 - 80ml (every sixth hour for 5 days) [8, 9]

b) *Vatha Sura kudineer* 40- 80 ml (every sixth hour for 5 days). [8, 10]

Moderate Symptom Group: [6]

This category relates people with Pneumonia (frequent fever, persistent cough) with no obvious hypoxemia.

As per *Siddhar Agasthiyar*,

“*Manniyasethumameerilmaakaayamvelukku
mvatrum*

*Panniyaeannamselaaparuvikkairumalsathi
Unnaiyemoorchaioosineervaluvaluthu
Kanniyaevilaavumnenjumkadupudannoogum
paarae*”

Deranged *kabam* leads to paleness of the body, cough, vomiting and pain in chest, excessive saliva, excessive and frequent urination.

“*Thaanamullasethumanththaanilakilveppu
Sayameelaiirumalmanthaarakaasam
Eenamurunsannividathodamvikkal*” [3]

The common symptoms of patients suffering from *kabam* are fever, asthma, cough and during cold season delirium, hiccup. Here *Kaba Kutram* needs to be corrected to control disease progression.

Treatment:

a) *Kabasura kudineer* – 10gm (every sixth hour for 5 days) [8]

b) *Tab.Brahmananthabhairavam* – 2 (BD with ginger juice and honey for 5 days) [8]

Persons with Severe Covid-19 Symptoms:
[6]

It includes a population where Pneumonia with hypoxemia (spo₂< 92%) is present and the patients also belong to a high-risk group.

In the Siddha concept of view, according to the Siddhar Agasthiyar,

“*Vaatidum sethumathil vanthidum
vaathamaagil
Naatiya kaalkalpolaenaram bellam
valithunirkum
Kootiyae pidarithaanum kundravae
valikumaakil*”

Severe pain in occipital region which is one of the major symptoms for COVID-19 patient

“*Thonthithaa sethumathil
vaayukoodithodarntha
Nenjadaippu swasakasam
Vanthitha kuralthanilae uruthaleelai
Vazhuvazhuppuneeruralmalathilseetham...*

As per the above stanza, Cough with breathlessness, hoarseness of voice, glossy tongue, excessive secretion of saliva, passing of mucus in motion occurs when *Kaba Kutram* is combined with *vatham* (i.e) affected *kutram* is *Kaba vatham*. According to *sathaga naadi*,

“*Adaivaanasethumathilseethalampatril
Anukinaalsuvaasaadaippuilaippumoorchai
Thidamaanaaayasamayakkamviyarvai
Saerthavikkalsannividathodamveechu
Idamaanavayuruporumalkulirnadukkal
Rathasuramoankaaramperuthaveekam*” [3]

The following symptoms manifest due to excess of *kabam* and they are shortness of breath, pneumonia, syncope, giddiness, excessive sweat, hiccup, delirium, gastric problems, high grade fever and rigor with chill. The people in this group need urgent therapeutic intervention/action.

Treatment:

- a) *Maldevi chenduram* – 65 -130 mg (BD with ginger juice and honey for 7 days), it is used when SpO₂< 95 % [11]
- b) *Swasakudori chenduram* – 65 mg (BD with honey for three days only), it is used when dyspnoea persists. [10]

Critical Symptoms (Fatal Complications):
[6]

Acute respiratory distress syndrome (ARDS) may manifest as shock, encephalopathy, myocardial injury, heart failure, coagulation dysfunction and acute kidney injury. According to Siddhar Agasthiyar,

“*Sethumathilsethumamaakilthimirthamaayar
iyusonnom
Aathmanallathallaazhivathumeikandaayoo*

*Kootruvanvanthiduvathaagumkuruvizhivaatt
ankollum
Saathiramarinthusonnomyaathirainaadithaa
nae”*

Death may occur when *Kabanaadi* (pulse play) independently doubles and this is a condition comparable to critical symptoms in COVID-19 patients.

According to *Kannusamiyam*,

*“Kanda pitham thanadanga kaatu
marunthinaal*

*Konda payanillai kutramoadanthu Kabamm
Ooda parikaaram othuvathillaitheriya
Thaeda vaathamoodit sei”* [3]

When *pithakutram* (humour) gets decreased (affected *kutram* is *Kabam*) there will be no effect in giving herbal preparations. Hence higher order medicines should be chosen to overcome this condition.

Treatment:

*“Kaalanaikai kasaki ootividum
kaalaananthagowri pathangam”
Kaalanantha gowri pathangam –*

30mg (twice daily with honey). [12]

Discussion

According to Siddha system, it is the view of ancient Siddhars that a constitution is likely to be built up with a predominance of seven *udalthathukkal* and three *uyirthaathukkal* (*vatham, pitham, kabam*) any one of the *uyirthathukal*, one or two combination gets affected refers as *kutram* which mark out the special features,

susceptibility to diseases, [13, 14] and the possibilities of adjustment in treatment and diagnosis.

The three *Uyirthaathus* (Vital life factors) [16]-*Vatham, Pitham* and *Kabam* are perpetually working to protect our body against entry of foreign and undesirable influences and struggling hard to keep themselves in equilibrium. [17] This is not possible always and when they lack usual alertness in their physiological functioning, the body tends to acquire disease. Likewise, in COVID-19 as the *kutrams* vary with varying manifestation of symptoms at each level of the disease (*Vatham, Pitham* and *kabam* are called *Uyirthathukkal* (vital life factors) and in health they remain in a state of equilibrium (4:2:1). When their equilibrium is disturbed resulting in diseased condition, they are called *Kutram* or *Thodam* (deranged humours).

In Siddha medicine the use of drugs prepared from metals and minerals are much more when compared with the other traditional medical systems. Many higher order medicines have been given in Siddha literature which can give appreciable results in the management of the pandemic disease COVID-19. When the infection enters the body, the first *kutram vatha* gets affected and the symptoms related to the affected *vatham* appear. *Notchi kudineer* and *vatha sura kudineer* are indicated to correct *vatham* and

it is mentioned in the Siddha Formulary of India and *Sikitcha Rathna Deepam*.

When the symptoms are moderate there will be frequent fever with persistent cough. Here the *kaba kutram* is affected and the associated symptoms appear as mentioned in the text *Noi Nadal. Kaba sura kudineer* and *Brahmananthabhairavam* are indicated to correct the *kabakutram* as mentioned in the text *Siddha Vaithiya Thirattu*.

In these severe conditions, symptoms of hypoxemia with pneumonia are present. When excessive *kaba kutram* (humour) is accompanied by *vatha kutram* (humour) (i.e) *Kaba vatham*, the symptoms get aggravated leading to hypoxemia. At this stage higher medicines like *chenduram* (micro pulverized herbo-mineral compounds are incinerated inside glass containers to get red in color) – *Maldevi chenduram* and *Swasa kudori chenduram* would be the choice of drugs as they have been indicated to correct *Kabavathakutram*.

The critical stage in COVID – 19 is characterized by acute respiratory distress syndrome, shock, encephalopathy, myocardial injury, heart failure, coagulation dysfunction and acute kidney injury. At this stage most of cases are in life threatening conditions and the patient needs immediate attention. These symptoms indicate *increased “kabam humour”* leading to ARDS and it is mentioned in the text *“Kannusamiyam”*. A higher order medicine *“Kaalantha gowri pathangam”* (prepared by sublimation of minerals treated with herbal extracts) may be used. Hence higher order medicines in Siddha system play predominant role in the treatment of COVID-19 even at critical stages. The above mentioned Siddha therapeutics create new research avenues in the treatment of COVID-19 which is unpredictably increasing in number and changing in virulence. It would be a timely initiative for the treatment of COVID – 19 as it provides unexplored potential in adapting integrative approaches.

References:

1. Tanu S, A Review of Coronavirus Disease-2019 (COVID-19), The Indian Journal of Pediatrics (April 2020) 87(4):281–286
2. Janakiram A, Prabhavathi J and Radha P, A note on the role of siddha system of medicine in the treatment of arthritis, Journal of Medicinal Plants Studies 2018; 6(2): 255-260
3. Natarajan K., Principles of diagnosis in Siddha, Department of Indian medicine and homeopathy, Chennai 600 106, first edition, 2009, p.no:11, 187, 189 , 194, 203, 212,195

4. Thyagarajan R. GunapadamThaathu Jeeva Vaguppu, Department of Indian Medicine and Homeopathy; Chennai:106 4th ed, 2004.
5. Jose M, Desai K, Fatal Superimposed Bacterial Sepsis in a Healthy Coronavirus (COVID19) Patient. Cureus 12(5): e8350. DOI 10.7759/cureus.8350
6. Yuki et.al, COVID – 19 pathophysiology; A review, Clinical immunology 215 (2020) 108427. [ELSEVIER]
7. Kuppaswamymudaliar K.N., Siddha maruthuvam (pothu), Department of Indian medicine and homeopathy, Chennai 106, second edition 2012, p.no: 226.
8. Kuppaswamymudaliar. K.N., Siddha vaidhiyathirattu, Department of Indian medicine and homeopathy, Chennai 106, second edition 2009, p.no: 294. 293, 34
9. Siddha formulary of India, part 1, Government of India, Ministry of health and family welfare, Department of health, p.no: 161.
10. Kannusamypillai.C., Sikicharathna deepamennumvaidya nool, Rathnanayakar and sons, first edition, 2007, p.no: 88, 266
11. Kannusamypillai.C., Sikichaarathna deepam part – 2, vaidyachintamani, B.Rathnanayakar and sons, First edition, 2007, p.no : 235.
12. Kannusamypillai.C., Kannusamiyamennum vaidhiya sekaram, B. Rathnanayakar and sons, First edition, 2014. P.no: 93.
13. Lakhotia. S. C., Translating Ayurveda's Dosha-Prakriti into objective parameters J Ayurveda Integr Med. 2014 Jul-Sep; 5(3): 176
14. Paul J. M., Relationships among classifications of ayurvedic medicine diagnostics for imbalances and western measures of psychological states: An exploratory study, Journal of Ayurveda and Integrative Medicine , Volume 10, Issue 3, July–September 2019, Pages 198-202 [ELSEVIER]
15. Sanjeev R., Building bridges between Ayurveda and Modern Science Int J Ayurveda Res. 2010 Jan-Mar; 1(1): 41–46.
16. Ramaswamy.R.S., Glimpses of Thathuvam 96, The South India Saiva Siddhantha Works Publishing Society Ltd, Chennai -18 2nd Edition 2019 P.27-28
17. Subhojit D., Prakriti and its associations with metabolism, chronic diseases, and genotypes: Possibilities of newborn screening and a lifetime of personalized prevention, J Ayurveda Integr Med. 2014 Jan-Mar; 5(1): 15–24