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Ayurvedic Preventive and Curative Protocol for COVID 19 - A Proposal

Prof. Dr. Sarbeswar Kar¹, Dr. B Gurubasavaraja², Dr. Vikaram S³, Dr. Sriharsha KV⁴, Dr. Ranjani Deshpande⁵

¹Professor and Medical Superintendent, SDM Institute of Ayurveda and Hospital, Bengaluru, ²Former CMO, JSS Ayurveda Medical College, Mysore, ³Professor, ⁴Associate professor, Sri Sri College of Ayurvedic Science and Research, Bengaluru, ⁵Member, Aapyam Insitute of indigenous Sciences and Research, Bengaluru, Karnataka, INDIA.

ABSTRACT

COVID-19 is an illness caused due to Novel Corona Virus 2, now called as Severe Acute Respiratory Syndrome Corona Virus -2 (SARS COV 2).^[1] Ayurveda considers it as a *Janapadodhwamsa Vikara*.^[2] It can also be grouped under the class of *Bhutabhisangaja Aagantuja Vikaara* with special reference *Aupasargika* and *Sankramika* disease.^[3] Furthermore, *Bhuta* in Ayurveda also has the meaning of *Visha* (poison) and *virus* meaning in latin is poison. Here, the origin of the virus was earlier considered from animals (Bats – primary hosts, Snake - intermediate host and further Pangolins). According to *Acharya Sushruta*, all share the similar *Yoni*.^[4] Considering all factors associated with Covid-19, the illness can be considered as a *Sannipata Jwara* with predominance of *Kapha* and *Pitta*. Interestingly the signs and symptoms seen in this condition are quite similar to the *Jangama Visha Lakshana* of *Kitavisha* originating from *Yoni* of *Jatuka* (Bat), *Sarpa* (Snake), *Shallaka* (pangolin).^[6] The choice of medicine (single and poly-herbo-mineral preparations) used should be *Kapha Pittahara*, *Tridosahara*, *Rakta Prasadaka / Shodhak*, *Agada (Vishahara)*, *Jwarahara*, *Ashukaari*, *Bahukalpa Rasayana / Urjaskara* (drugs having immune-boosting properties) and potent antimicrobial activities. Herbo-mineral agents possessing above activities which can be used as prophylactic as well as curative measure is been proposed in the study. Considering above concepts, a detailed review is done from Ayurvedic classics and a possible frame work is proposed in regard to *Samprapti* (pathogenesis), prophylactic and curative aspects of COVID-19 in the study.

Key words: COVID-19, Ayurveda, Preventive Protocol, Curative Protocol, *Bhutabhisangaja*, *Aagantu Vikaara*, *Agada*.

INTRODUCTION

COVID-19 is an illness caused due to Novel Corona Virus 2, now called as Severe Acute Respiratory Syndrome Corona Virus -2 (SARS CoV 2). It was first reported from Wuhan City, China on 31st of December

Address for correspondence:

Prof. Dr. Sarbeswar Kar

Professor and Medical Superintendent, SDM Institute of Ayurveda and Hospital, Bengaluru, Karnataka, INDIA.

E-mail: drskar2007@rediffmail.com

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2019. It was declared as a pandemic by WHO on March 11, 2020, as it has confirmed its presence in all continents except Antarctica.^[1]

According to *Agada Tantra* (Branch of Toxicology and Forensic Medicine of Ayurveda) *Stavara Visha* (poison substance/drug of herbal and mineral origin) is an antidote to *Jangama Visha* (animal poison) and vice versa.

As per the previous publications of COVID-19 , 98% patients were having mild to moderate fever (*Jwaram*), 76% were having cough (*Kaasam*) and 44% were having myalgia (*Angamardam*) and fatigue (*Tandra*). Among those developed pneumonia, 99% were having fever (*Jwaram*), 70% were having fatigue (*Tandra*), 59% dry cough (*Vaatika Kaasam*), 40% having anorexia (*Aruchi*), 35% having myalgia (*Angamardam*), 31% having dyspnoea (*Swaasam*) and

27% were having sputum production (*Kaphaja Kaasam*).^[5]

MATERIALS AND METHODS

With detail review of classical literatures and research updates, conceptualization of the symptom-complex associated in COVID-19 with *Sannipata Jwara* owing to the origin of *Bhutabhisanga* and *Jangama Visha* effects has been done. A detail drug review focusing on drugs having *Vishaghna* properties (antidotes for *Jangama Visha*), anti-microbial, *Jwarahara*, *Kasa* and *Shwasahara*, *Kapha - Pitta - Tridosahara*, *Raktaprasadana / Shodhak*, *Rasayana* and *Urjaskara* properties have been rationally compiled and enumerated i.e. *Vishaghnagana* of *Charaka* and other herbal drugs including mineral and animal products like *Tamra*, *Yashada*, *Haratala*, *Gouripashana*, *Loha*, *Abhraka*, *Gandhaka*, *Kasturi*, *Gorochana* etc., are reviewed. Most importantly in the review we witnessed usage of *Rasayana / Urjaskara Dravya* like *Haridra*, *Daruharidra*, *Amalaki*, *Guduchi*, *Yashtimadhu*, *Shunti*, *Pippali*, *Vidanga*, *Ashwagandha* etc.

AYURVEDIC PERSPECTIVE OF COVID-19

Ayurveda has unique methods of approaching a newly detected disease. Ayurveda embraces a three pointed approach in the elaboration of an unknown disease, the natural history of the disease (*Vikaara Prakrti*), the site of the pathological process (*Adhishtana*) and etiological features (*Samuthaana Visheshha*). The detail explanation of the disease can be outlined on the lines of *Trisutra Ayurveda*.^[2]

Pathogenesis of COVID-19 according to Ayurveda – A Bird's eye view

Samprapti Ghataka

- *Dosha - Kapha- Vaata-Pitta*
- *Dushya - Rasa* and other *Dhatus* in the later stages
- *Vyadhi Swabhava - Ashukari*
- *Srotas - Pranavaha Srotas* and other *Srotas*.
- *Sroto Dushti Prakara - Vimarga Gamana, Sanga, Atipravritti*.

- *Agni - Vishamagni*
- *Adhishtana - Pranavaha Srotas* and later *Sarva Shareera*.
- *Vikara Prakruti - Daaruna*
- *Sadhyasadyata - Saadhyata* in stages of *Sanchaya* and *Prakopa* and *Krichra Sadhya* in stages of *Prasara* and *Sthana Samshraya*. *Pranopaghataka* in the stage of *Bheda* especially in the cases of elderly persons with existing co-morbid factors and *Alpa Rogi Bala*.

SAMPRAPTI AND CLINICAL STAGES

Bhutabhisanga (Jangama Visha)

(Portal Entry- Oro pharynx, Naso-Pharynx)



Stage 1 - Sanchaya and Prakopa Avastha

Tridosha involvement in Pranavaha Srotos

Naso-pharynx, Paranasal Sinuses - Upper Respiratory Tract

[with mild to moderate symptoms like sneezing, cough, fever, malaise]



Stage 2 - Prasara and Sthanasamshraya Avastha

(All the *Doshas* affect the entire *Pranavaha Srotas*)

[with aggravated symptoms]



Stage 3 - Vyakta Avastha

in *Pranavaha Srotas* and later *Sarvashareera*

(*Tandra lakshana*, *Dhatupaaka* , *Dhatugata Jwara Lakshana* etc.)



Stage 4 - Bheda Avastha

All the *Doshas* affecting *Sarvashareera*

(*Upadrava Laskshanas - Shwasa, Moha, Sanjanaasha, Atisaara*)

Note: As the disease is *Agantuja*, the pathogenesis may not involve the progression as seen in a *Nija Vyadhi*.

Clinical Stages

- Stage 0 - Asymptomatic / mild symptom having travel history/contact.
- Stage 1 - Patients having travel history with Marked Symptoms like Sneezing, Cough, Fever, Malaise - *Kaphavata Pradhana Sannipata Jwara*.
- Stage 2 - Aggravated symptoms
- Stage 3 - *Dhatupaaka Lakshana* and *Dhatugata Jwara Lakshana*
- Stage 4 - *Upadrava* like *Shwasa* - Acute respiratory syndrome

RESULTS

With the above analysis of the pathogenesis considering the concepts of *Bhutabhisanga*, *Visha Prabhava* and *Sannipata Jwara*, there was a possibility to establish a protocol to be used for the patients affected with COVID-19 including guidelines to follow for prevention of the disease.

Aushadha Sutra

As discussed earlier from the view point of Ayurveda, COVID-19 is read under the concept and magnitude of

Potent drugs possessing the above qualities are enlisted and analyzed as follows:

DRUG REVIEW

1) Analysis of *Vishaghna Dashemani* from *Charaka Samhita*^[12,13]

| SN | Drug (Sanskrit Name) | Latin Name | Family | Rasa | Guna | Virya | Vipaka | Chief Chemical Constituents ^[3] | Doshaghnta |
|----|----------------------|-------------------------------|----------------------|-------------------------------|---------------------|--------------|-------------|--|------------|
| 1. | <i>Haridra</i> | <i>Curcuma longa</i> linn. | <i>Zingiberaceae</i> | <i>Tikta, Katu</i> | <i>Laghu</i> | <i>Ushna</i> | <i>Katu</i> | Curcumin | KP |
| 2. | <i>Manjishta</i> | <i>Rubia cordifolia</i> linn. | <i>Rubiaceae</i> | <i>Tikta, Kashya, Madhura</i> | <i>Guru, Ruksha</i> | <i>Ushna</i> | <i>Katu</i> | Purpurin Manjistin Garancin | KP |

Janapadodhwamsa, *Aupasargika Roga*) and *Sankramika Roga*.^[11] The concept falls into all the three types of disease causation namely - *Aadi Daivika*, *Adibhoutika* and *Adhyatmika*. Accordingly, owing to its origin, both curative and preventive measures necessarily includes all the three principles of Treatment protocols - i.e. *Daivavapashraya*, *Satvavajaya* and *Yukti Vyapashraya* in totality.

Sequential analysis of Genomes, can give us plethora of information which can be of use for drug development as single or compound preparations in the line of anti-viral drugs (*Bhutabhisanga*). Amongst other factors, sequence of the host invasion factors of the virus strain may possibly play an important role in the degree of transmission, virulence and pathogenicity of the virus.

The pathology of the disease is (*Bhutabhisanga janya - Jangama Visha*) fast progressive, affecting the *Uttarottaradhatu* and *Ojus*, posing a great threat to vital organs, thus principles of treatment should be in line of multi-dimensional approach.

Hence, The choice of medicine (single or poly-herbo-mineral preparations) should be *Kapha Pittahara*, - *Tridosahara*, *Rakta prasadaka/Shodak*, *Agada (Vishahara)*, *Jwara hara*, *Ashukaari*, *Bahukalpa Rasayana / Urjaskara* (drugs having immune-boosting properties).

| | | | | | | | | | |
|-----|-----------------------------|--|----------------------|--------------------------------|--------------------------------|--------------------|----------------|--|------------|
| 3. | <i>Subaha</i> | <i>Adiantum lunulatum</i> | <i>Polypodiaceae</i> | <i>Kashaya, Tikta</i> | <i>Guru, Sheeta</i> | <i>Sheeta</i> | <i>Madhura</i> | Adiantone, Adiantoxide, Filicenol | KP |
| 4. | <i>Sukshma Ela</i> | <i>Elleteria cardimomum</i> Maton. | <i>Zinfiberaceae</i> | <i>Madhura, Katu</i> | <i>Laghu, Ruksha</i> | <i>Sheeta</i> | <i>Madhura</i> | Cineol, Terpeneole, Sabinene, Terpinene | VPK |
| 5. | <i>Palindi</i> | <i>Operculina turpethum</i> | <i>Convulvaceae</i> | <i>Tikta Katu</i> | <i>Laghu, Ruksha</i> | <i>Ushna</i> | <i>Katu</i> | Turpethenic Acid, Coumerin derivative, Scopoletin. | KP |
| 6. | <i>Chandan</i> | <i>Santalum album</i> Linn. | <i>Santalaceae</i> | <i>Tikta Madhura</i> | <i>Laghu, Ruksha</i> | <i>Sheeta</i> | <i>Katu</i> | Alpha and Beta Santalol | KP |
| 7. | <i>Katak</i> | <i>Strychnos potatorum</i> Linn. | <i>Loganiaceae</i> | <i>Madhura, Kashaya, Tikta</i> | <i>Laghu, Vishada, Vikashi</i> | <i>Sheeta</i> | <i>Madhura</i> | Brucine, Loganin, Mannose, Linoleic Acid, Saponins like Sitosterol | KV |
| 8. | <i>Shirisha</i> | <i>Albizia lebbeck</i> (L.)Benth. | <i>Leguminosae</i> | <i>Madhura, Kashaya, Tikta</i> | <i>Laghu, Ruksha, Tikshna</i> | <i>Ishad Ushna</i> | <i>Katu</i> | N-Benzoyl L Phenyl, Alanilol, Macrocyclic, Alkaloids, Flavonols, Saponins | VPK |
| 9. | <i>Sindhu-vaar/ *Subaha</i> | <i>Vitex negundo</i> Syn. <i>Vitex Trifolia</i> Linn. | <i>Verbenaceae</i> | <i>Tikta, Katu</i> | <i>Laghu, Ruksha</i> | <i>Ushna</i> | <i>Katu</i> | Chrysophenol D, Casticin, Sabinene, Terpinene 4-Ol, Globulol | KV |
| 10. | <i>Shleshmat aka</i> | <i>Cordia dichotoma</i> Forst.F. | <i>Boraginaceae</i> | <i>Kashaya, Tikta, Madhura</i> | <i>Snigdha Guru, Pichhil</i> | <i>Sheeta</i> | <i>Katu</i> | Pyrrrolizidine Alkaloids, Betulin, Flavonoids, Coumarins, Terpenes, Saponins | VP |

2) Analysis of other potent drugs from different classics

| SN | Name | Latin name | Doshagnata | Prabhaava |
|-----|-----------------------|---------------------------------|--------------------------|--|
| 1. | <i>Duraalabhaa</i> | <i>Alhagi camelorum</i> | <i>Kapha –Pitta Hara</i> | <i>Kapha Roga Hara</i> |
| 2. | <i>Tulasi</i> | <i>Ocimum sanctum</i> | <i>Kapha –Vata Hara</i> | <i>Vishama Jwara Hara, Shwaasa-Kasaghna, Bhutaghni</i> |
| 3. | <i>Amruta</i> | <i>Tinospora cordifolia</i> | <i>Tridosahara</i> | <i>Rasayana, Jwaraghna, Vataraktahara</i> |
| 4. | <i>Vidanga</i> | <i>Embelia ribes</i> | <i>Kapha –Vata Hara</i> | <i>Krimighna</i> |
| 5. | <i>Saariva</i> | <i>Hemidesmus indicus</i> | <i>Tridosahara</i> | <i>Jwaraghna, Agnimandhyahara</i> |
| 6. | <i>Yashtimadhu</i> | <i>Glycyrrhiza glabra</i> | <i>Pitta Vata Hara</i> | <i>Kanthyaa, Chakshyshya, Varnya, Keshya, Rasayana</i> |
| 7. | <i>Vasa</i> | <i>Adhatoda vasica</i> | <i>Kapha Pitta Hara</i> | <i>Rakta Pitta Hara Shwasa Hara</i> |
| 8. | <i>Amalaki</i> | <i>Emblia officinalis</i> | <i>Tridosahara</i> | <i>Rasayana, Pramehaghna</i> |
| 9. | <i>Katuki</i> | <i>Picrorhiza kurroa</i> | <i>Kapha Pitta Hara</i> | <i>Jwarahara, Yakrit Uttejaka</i> |
| 10. | <i>Kirata Tikta</i> | <i>Swertia chirata</i> | <i>Kapha Pittahara</i> | <i>Sannipatajwara Hara</i> |
| 11. | <i>Vatsanaabha</i> | <i>Aconitum ferox</i> | <i>Tridosahara</i> | <i>Jwarahara, Rasayana</i> |
| 12. | <i>Dhattura</i> | <i>Datura metel</i> | <i>Kapha Vata Hara</i> | <i>Shwasahara Jwarahara, Vishaghna</i> |
| 13. | <i>Nimba</i> | <i>Azadirachta indica</i> | <i>Kapha Pitta Hara</i> | <i>Krimihara, Kushtaghna</i> |
| 14. | <i>Bhumyamalaki</i> | <i>Phyllanthus niruri</i> | <i>Kapha Pitta Hara</i> | <i>Kasa, Kandu Hara, Yakrit Uttejaka</i> |
| 15. | <i>Aparaajitaa</i> | <i>Clitoria ternatea</i> | <i>Tridosahara</i> | <i>Medhya</i> |
| 16. | <i>Lavanga</i> | <i>Syzygium aromaticum</i> | <i>Kapha Pitta Hara</i> | <i>Dipana, Paachana, Chardighna, Shwaasahara</i> |
| 17. | <i>Naagavalli</i> | <i>Piper betle</i> | <i>Kapha Vata Hara</i> | <i>Shwasaghna And Kapharoga Hara</i> |
| 18. | <i>Mustaa</i> | <i>Cyperus rotundus</i> | <i>Kapha Pitta Hara</i> | <i>Jwaraghna, Deepana, Paachana</i> |
| 19. | <i>Bilva Patra</i> | <i>Aegle marmelos</i> | <i>Vata Kaphahara</i> | <i>Shothahara, Jwarahara</i> |
| 20. | <i>Parijata</i> | <i>Nyctanthus arbor-tristis</i> | <i>Kapha Pitta Hara</i> | <i>Jwaraghna, Krimighna, Mridu Virechana</i> |
| 21. | <i>Krishna Jiraka</i> | <i>Nigella sativa</i> | <i>Vata Kaphahara</i> | <i>Deepana Pachana, Rasayana</i> |
| 22. | <i>Shunti</i> | <i>Zizeber officianale</i> | <i>Vata Kaphahara</i> | <i>Deepana Pachana, Jwarahara</i> |

| | | | | |
|-----|----------------|---------------------|-----------------------|----------------------------------|
| 23. | <i>Pippali</i> | <i>Piper longum</i> | <i>Vata Kaphahara</i> | <i>Kasa Shwasahara, Rasayana</i> |
|-----|----------------|---------------------|-----------------------|----------------------------------|

3) List of potent mineral agents

The following Mineral drugs can be used at different stages of management for COVID -19 in different formulations.

1. *Hingula*
2. *Abhraka*
3. *Tamra*
4. *Haratala*
5. *Manashila*
6. *Gauripashana*
7. *Swarna*
8. *Rajata*
9. *Pravala*
10. *Trivanga*
11. *Swarnamakshika,*
12. *Shilajatu*
13. *Godanti*

4) List of potent animal products

1. *Go-dugdha* and *Go-ghrita*
2. *Go-Mutra*
3. *Gomaya*
4. *Shringa*
5. *Madhu*
6. *Kasturi*
7. *Gorochana*

General Category

Considering the fact that COVID-19 is pandemic in nature, prevention modalities have been outlined in best possible way.

Target:

1. To reduce virus load, virus clearance in the air and contact surface i.e. at home, at Hospital and at

community place in large. Proposed modalities could be Air sanitization and contact surface, through;

- Dhoopana at Home by medicated *Varti-Divya Dhooma Varti*.
 - Medicated Air Aerosol at Hospital and other contact surface through medicated extract prepared from the composition of natural anti-microbial agents such as Neem leaves or bark; *Karanja* leaves/bark/seeds, *Nirgundi* leaves, *Aloe vera* etc.
 - Herbal disinfectant lotion with above drugs in *Gomutra* base for *Bhumi Shuddhi*.
2. To reduce viral load in the host -by creating unfavourable condition at the portal entry and contact surface. (Site of Sanchaya - Naso-pharynx and Oro-pharynx) through different methods like *Pratimarsha Nasya*, using potent tooth paste, gargling, steam inhalation, *Dhoomapana/Dhooma Nasya* and *Neti* (Nasal cleansing procedure).
 3. To increase host immunity, for better defense from virus virulence reactions i.e.
 - a. *Yuktivyapashraya* (*Dinacharya, Ritucharya* and *Rasayana Sevana*)
 - Physical exercise including breathing exercise,
 - Food - *Pathyahara* (wholesome Diet)
 - Medicines - Medicines possessing *Rasayana* effect
 - b. *Satwavajaya* - *Dhyana, Pranayama, Yogasana, Sadvritta Palana* and *Achara Rasayana* (Following of good conducts).
 - Patient counseling - to keep the *Manas* Strong - by Experts and Spiritual leaders through multimedia.
 - c. *Daivavyapashraya* - Chanting *Mantra*, lighting *Diyas*, Prayer, performing *Yajna*, *Homa* etc., and to add up principles of *Graha Chikitsa*.

I) PREVENTION PROTOCOL

A. Primary Prevention - General Public

To follow Sanitization, Social Distancing, Home quarantine, Personal Isolation

| Type of Intervention | Measures | Remarks |
|------------------------|---|---|
| Primary Prevention for | <p>Community Level</p> <ol style="list-style-type: none"> <i>Bhumi Shuddhi</i> - Sprinkling of extracts of <i>Neem</i>, <i>Karanja</i> etc. in the base of <i>Gomutra</i> Air Sanitization - Fumigation with <i>Divya Dhoopa</i> at Home and in Aerosol form at Hospitals and Community place - (Ref-Rasa tarangini - <i>Bhootabhinivesha Adhikara</i>) or <i>Lakshadi Dhoopa</i> (<i>Susruta Kalpasthan.6/4</i>) or turmeric, garlic peel, dried neem leaves, <i>vacha</i> (<i>acorus calamus</i>), <i>sarjarasa</i> (<i>shorea robesta-gum resins</i>) added with ghee Social Distancing and other practices as per protocol | To create unfavourable environment for the Viruses. |
| | <p>Personal Level</p> <ol style="list-style-type: none"> Dhooma nasya with <i>Divya Dhoopa varti</i> or <i>Haridra Varti</i>. Steam Inhalation with <i>Tulasi leaves + Pudina Leaves+ Ajamoda+Nimba</i> Gargling with – <i>Turmeric + Triphala + Shunthi + Yastimadhu (Liquorice) + pinch of Salt + tankana (borax)</i> in luke warm water - (All or Any of these) To use Neem based herbal tooth paste for oral hygiene. <i>Khadiradi vati / Talisadi Vatakam / Eladi gutika/ Lavangadi Vati-</i> for frequent chewing Pratimarsha Nasya with <i>Sarshapa Taila/Tila Taila/Anu Taila</i> – instill 2 drops in each nostril. Eye wash with <i>Mild Triphaladi Kwatha (3 gm of Triphala Kwatha Churna + 100 ml of water- Boil for 3-5 minutes and filter)</i> to be used for eye wash using <i>Eyecup, Gomutra Arka - 1 ml + 98 ml Rose water + 1 ml honey</i> Proprietary preparations - <i>Sri Netra (Sri Sri Tattva)</i> or <i>Ophthacare eye drops (Himalaya)</i> or <i>Sunetra (Sreedhareeyam) - 2-3 drops thrice daily</i> <p>Or</p> | <ul style="list-style-type: none"> To create Unfavourable contact surface for the virus at the portal entry i.e. Oropharynx, Naso-pharynx Immunity boosting |

Anjana (Drops) - 2 drops on each eye with Daruharidra Rasakriya, Yashtimadhu Rasakriya/ Kataka Rasakriya / Guduchi Rasakriya.

Drink - for immune boosting

- **Herbal / Medicated Tea** - (All or Any of these) Luke warm prepared with Tulasi, Pepper, Shunti, Yasthimadhu, Leaves of Bilwa, Guduchi stem/ Satwa, Ashwagandha, Sariva, Ela / Dalchin can be added with lemon juice and Jaggery
- **Golden Drink** - Natural Turmeric – 1/2 tsp (5gm) with one small cup (150ml) of warm Milk
- **Ashwagandha Ksheera Paaka** - Ashwagandha -1/2 tsp with one small cup of warm Milk.
- Proprietary preparations – **Ojasvita powder** (Sri Sri Tattva) 1 tsp with 1 cup of warm milk/warm water, **Shakti drops** (Sri Sri Tattva) 5-6 drops with small cup of water
- **Rasayana** - Chyavanaprash - 1tsp or Bhargavaprokta Rasayana (SDM) or Swamla Compound (Dootapapeshwar comp-Fortified Chyavanaprash with Gold and Silver etc.,) with 1 cup of warm milk on empty stomach- morning and evening

Pathya

Diet

Freshly prepared diet and served hot.

Light diet includes -

- Ganji - Rice gruel / Ragi gruel– with Ginger Or
- Yavaagu Prepared with Rice/Rava with Coriander, Cumin, Ginger, Turmeric and pepper.
- Yusha prepared with green gram or similar pulses added with krishna jeeraka (black cumin).
- Kichadi / Pongal / Dhaliya with Coriander, Cumin, Ginger, Turmeric and pepper.
- Vegetables - katu and tikta rasa pradhana - Patola, Brinjal, Tender radish, karkataka, Punarnava leaves, Tanduliya leaves (Amaranthus), Sarshapa leaves, Pudina leaves, Fenugreek leaves, Coriander leaves, Curry leaves, Cluster beans, Kakamachi etc.,
- Amla (Indian Gooseberry) - Aamalaki payasa/ Jam / Chutney with pudina and coriander.
- Drink Luke warm water Or Shadanga paneeya-

| | | |
|--|---|--|
| | <p>decoction prepared with Shadanga Churna- 10 gms+ Water 200 ml – Boiled, reduced to Half the quantity used for drinking.</p> <ul style="list-style-type: none"> ▪ Take adequate rest <p>Apathya</p> <p>Heavy, Spicy, oily or fried foods; Junk foods, Curd, Cool drinks, Head bath; Mental stress; Exposure to fan/AC should be strictly avoided.</p> | |
|--|---|--|

B. For High Risk Subjects – Asymptomatic - Prophylitic cum First Line Treatment - Stage 0

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|--|--|--|
| <p>Especially Front-line health care Professionals- medical, para-medical and supporting staff working with COVID-19 and People working - Police, Banking, Groceries, Post office, deliveryagents</p> <p>and</p> <p>People who are Quarantined with no Symptoms</p> | <p>Along with the measures advised for Primary prevention,</p> <ol style="list-style-type: none"> 1. Bath with – Water boiled with leaves of Neem, Aloes, Karanja, Nirgundi with Gomutra Arka. 2. Orally - Tulasi leaves - 5-6 leaves with honey Or Tulasi Swarasa – 10 ml with honey Or Tulasi Arka (Sri Sri Tattva) - 10-15 drops with small cup of warm water twice a day 3. Guduchi (stem /leaf) Swarasa - 10 ml or Guduchi Satwa with 1gm Honey <p>Or Shamshamani vati (Guduchi extract) 1-0-1. Ref - siddhayoga sangraha.</p> <ol style="list-style-type: none"> 4. Sudarshana Choorna - 5gms - twice a day with honey (Ref-Bhaishajya Rathnavali) <p>Or Mahasudarshana churna – 5gms - twice a day with honey (Sharangadhara samhita)</p> <p>Or Sudarshana kadha - Sudarshana Churna - 5mgs boiled in 100 ml of water reduced to half, to drink twice a day with warm water.</p> <p>Or Sudarshana Ghana vati 1-0-1 (Ref-Rasatarangini)</p> <ol style="list-style-type: none"> 5. Arogya Vardhini Rasa 2-0-2 (Ref-Rasarathna samuchaya) with Vishaghna Qwatha 20ml (Ref-Charaka Shadvirechana Shatashritiya Adhyaya). | <p>Pratishyayahara, Kasahara and Jwarahara aushadhas.</p> |
| <p>With mild symptoms, like mild cough, Cold etc.</p> | <p>Additionally,</p> <ol style="list-style-type: none"> 6. Tribhuvanakirti Rasa -2-2-2 with Honey-(Ref-Yogaratanakara) with Godanti bhasma <p>Or Bilwadi Gutila (Ref. Ashtanga Hrudaya)</p> <p>Or</p> <ol style="list-style-type: none"> 7. Sanjivani Vati – 2-2-2(Ref - Sharangadhara Samhita) | |

8. **Dashamoola Katutrayadi Kashaya** - Kapha predominance - 20 ml TID (Ref-Sahasrayogam)

Or

9. **Amruttottara Kashaya** - Pitta predominance - 20 ml TID (Ref - Sahasrayogam)

For Children

Balachaturbhadra Churna with Madhu (Ref-Chakradatha)

Or

Balachaturbhadra Syrup (Dhoothapapeswar)

Course Duration: **15 to 21 Days.**

Rationality:

- **Arogyavardhini Rasa:** Ref: Rasa Ratna Samucchaya, Kushtha Rogadhikara.

Imp Ingredients: Parada, Gandhaka, Loha Bhasma, Abhraka Bhasma, Tamra Bhasma, Shuddha Shilajatu, Shuddha Guggulu, katuki.

Bhavana Dravya: Nimba Parta Swarasa

Indication: All types of Jwara, Vata-pitta-Kapha-**Bhutaan Jwaraan** and Kushta

Rationality: The nomenclature of the compound itself is suggestive of maintaining the health of a healthy individual and uplifting the health status. The Ingredients of Arogyavardhini Rasa includes potent Sroto Shuddhikara drugs targets to clear the Sroto Dushti of Dhatus and Malas.

Nimba Swarasa being a potent Anti-viral drug adds to the total drug effect in the line of reducing virus load/virulence.

- **Sudarshana Kadha:** Bhashajya Ratnavali

Imp Ingredients: Kiratatikta, Haridra, Vacaha, Yashti, Amalaki, Guduchi, katuki, haritaki, Pippali, Trikatu, etc.

Rationality: The formulation with potent herbs corrects the imbalance of tridosha and all types of fever.

- **Balachaturbhadra Churna**

Chakradatta – Musta, Ativisha, Pippali, Kartakashringi

- **Tribhuvanakirti Rasa** - Yogaratnakara (Jwara)

Imp Ingredients - Hingula, Vatsanaabha, Trikatu, Pippali mulla, Tankana. Bhavana Dravya - Fortified with Tulasi, Adraka, Dhattura Swarasa - Anti viral, Jwarahara, Vishahara.

C. Treatment Protocol

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| <p>Stage I COVID-19 positive</p> <p>Patients having travel history with Marked Symptoms like Sneezing, Cough, Fever, Malaise etc.</p> | <p>In addition to the measures advised in primary Prevention,</p> <ol style="list-style-type: none"> 1. Sudarshana Ghana vati Or Maha sudarshana vati. 2. Sitopaladi Churna / For Diabetics - Panchakola Churna. 3. Sarvatobhadra Rasa with Guduchi Satva (1gm) with honey (Ref-Rasasara sangraha) <p>Or Gorochanadi Gutika (Ref - Rasatarangini)</p> <p>Or Kastooribhairava Rasa – Madhyama (Ref-Bhaishajya rathnavali)</p> <p>Or Jayamangala Rasa (Ref - Bhaishajya rathnavali)</p> <ol style="list-style-type: none"> 4. Guduchyaadi Kashaya (Ref - Sharangadhara samhitha) / Amritarishta 5. Anulomana with Haritaki Churna /tablet or Drakshadi Kashaya 6. Brihat Hardira Khanda - (Ref- Bhaishajya Ratnavali). <p>Dose and Anupana - As per Roga and Rogi Bala</p> | <p>To Halt</p> <p>the progression of the disease to the next stage, Intervention is Required which should be on the lines of</p> <ul style="list-style-type: none"> ▪ Ama - Pachana, ▪ Pratishyayahara, ▪ Rogi bala Vriddhikara, ▪ Vishaghna ▪ Jwarahara and ▪ Kasa Shwasahara ▪ Vatanulomana Karma |
| | <p>Rationality:</p> <p>Sarvatobhadra Rasa : [Ref:Rasa Saara Sangraha, Jwaraadhikara]</p> <p>Ingredients: Hingulotha Parada, Gandhaka, Abhraka, Triphala, Trikatu, lavanga, Musta, Karpura, Kushtha etc.,.</p> <p>Rationality: The above potent Herbo-mineral compound targets the acute phase of respiratory distress and prevents the complications due to fever.</p> <p>Kastoori bhairava Rasa: Ref: Bhaishajya Ratnavali. 5/813-818</p> <p>Ingredients: Vatsanabha, Katuki, Kharpara, Lavanga, Swarna Bhasma, Rajata Bhasma, Kanta Loha, Dhattura, Jatiphala etc.,.</p> <p>Rationality: This formulation is indicated in all types of complicated fever. It contains Sthavara Visha which can act against Jangama Visha effectively.</p> <p>Jayamangala Rasa: Ref: B.R. Jwaradhikara</p> <p>Imp Ingredients: Swarna, Raupya Bhasma, Tamra, Vanga Bhasma.</p> <p>Bhavana in Dhattura, Shephali, Kiratatikta Kwatha,</p> | |

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| | <p>Dashamula Kwatha - 3 times in each Dravya.</p> <p>Indications: Dhatugata Jwara and Bala Pushtikara</p> <p>Rationality: Most potent formulation considering the composition and Bhavana Dravya indicated in complicated fevers and acts as immunebooster.</p> | |
| <p>Stage II - with aggravated symptoms COVID-19</p> <p>Positive case</p> <p>Without co-morbidity</p> | <p>1. Maha Sudarshana Ghanavati</p> <p>2. Vasaguduchyadi Kashaya (Ref- Sahasrayoga)</p> <p>Or Amritarishta + Balarishta</p> <p>3. Jayamangala Rasa</p> <p>4. Swasakuthara Rasa (Ref - Bhavaprakasha)</p> <p>5. Ananda Bhairava Rasa – In case of Atisara (Diarrhoea) (Ref - Rasayoga Sagara)</p> <p>6. Rasa Manikya with Ashwagandha Choornam (Ref - Bhaishajya Rathnavali)</p> <p>Dose and Anupana - As per Roga and Rogibala</p> <p>Shwasakuthara Rasa: Ref; Bahavaprakasha - Shwasaroga Imp Ingredients: Shuddha Parada, Shuddha Gandhaka, Shuddha Manashila, Shuddha Tankana, Vatsanaabha, Trikatu etc., Anupana: With Honey</p> <p>Rationality: The above ingredients have been proved to be effective in combating with acute respiratory infections</p> <p>Anandabhairava Rasa: Rasa Yoga Saara - 29. Ingredients: Hingula, Vatsanaabha, Trikatu, Tankana Bahavana with Jambira Swarasa Anupana: Takra, Vijayaa (<i>Cannabis indica</i> powder). Prescribed in this stage for <i>Jwaratisara</i>.</p> | <p>More potent drugs with Superior preparation methods for combating Sannipataja conditions</p> |
| <p>With Co-Morbid Factors</p> <p>Elderly person and with Alpa Rogi bala</p> | <p>With Co-morbid factors</p> <p>1. Jayamangala Rasa</p> <p>2. Sameera Pannaga Rasa (Ref- Rasayogasagar)</p> <p>Or</p> <p>Kastoori Bhairava Rasa: 3-Brihat (Ref-Bhaishajya rathnavali)</p> <p>3. Pushkaramoolasava + Pippaladyasava</p> <p>4. Bharangyadi Kashaya</p> | <p>Formulations of Arsenic (Haratala - AS_2S_3, Manashila - AS_2S_2 and Gauripashana - AS_2O_2 in purified form.</p> <p>Named as - Rasamanikya, Sameerapannaga Rasa and Mallasindura are highly indicated in aggravated Kapha-Vata Dosha diseases and especially respiratory conditions.</p> |

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| | <p>5. Baladi Churna with warm milk (Ref-Bhavaprakash)</p> <p>Dose and Anupana - As per Roga and Rogibala</p> | |
| | <p>Sameerapannaga Rasa Ref: Rasa Yoga Sagara</p> <p>Imp Ingredients: Shuddha Parada, Shuddha Gandhaka Gauripashana, Haratala, Tulasi Swarasa Bhavana, Aunpana: Nagavalli Swarasa.</p> <p>Indications: Kapha Roga and Sannipatika condition</p> <p>Rationality: Gauripashana (AS₂O₂) being the most potent in Sthavara Visha varga and prepared in Kupipakwa method . This formulation is added with Tulasi and Nagavalli.</p> <p>Kastoori bhairava Rasa: 3 - Brihat</p> <p>Ref: Bhaishajya Ratnavali.5/819-826</p> <p>Imp Ingredients: Loha Bhasma, Harataala, Taamra Bhasma, Vidanga, Abhraka Bhasma, Amalaki, Musta, pravaala,</p> <p>Rationality:</p> <p>This formulation is indicated in all types of Jwara, Abhichaara, Bahutika</p> <p>Jwara, Bhuta-Preta- Pishacha jwara. Also specifically indicated in Jwara varying from Day 1, Day 3, Day 8 and Day 15.</p> | |
| <p>Stage III</p> <p>Dhatu Paaka/Dhatugata Jwara Lakshana</p> | <p>1. Mallasindhura- (Ref- Rasa Tarangini- Shwasa-Kasa-Peenasa) Contains - Gauripashana (AS₂O₂)</p> <p>2. Suvarna Malini Vasanta Rasa - (Ref- Yoga Ratnakara)/ Or Vasanta Malati Rasa - (Ref-Bhaishajya rathnavali)</p> <p>3. Kanakasava + Dashamoolarista</p> <p>4. Bharangyadi Kashaya</p> <p>5. Baladi Churna with warm milk (Ref-Bhavaprakash)</p> <p>6. Frequent Nebulization with Bharagnyadi Arka</p> <p>Dose and Anupana - As per Roga and Rogi bala</p> | <p>Aggressive treatment with protecting Rogi Bala (Ojus).</p> |
| <p>Stage IV</p> <p>Upadrava lakshana</p> <p>Acute Respiratory Syndrome complications</p> | <p>1. Hemagarbha Pottali (Ref-Sharangadhara samhitha) Or Siddhamakaradhwaya</p> <p>2. Mallasindhura</p> <p>3. Balarishta + Kanakasava</p> <p>4. Bharangyadi Kashaya</p> | <p>Superior Preparations with potent ingredients used for enhancing Rogi bala.</p> <p>Oorjaskara</p> |

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| <p>After Discharge</p> <p>Punaravartaka Jwara Chikitsa</p> <p>To reduce the viral Load and prevent the relapse of the condition</p> | <p>Shareera Shuddhi and Rasayana Chikitsa</p> <ul style="list-style-type: none"> ▪ Mridu Virechana or Anulomana with Haritaki /Aragwadhadi Qwatha ▪ Kiratatiktadi Kashaya – Kirata, Musta, katuki, Amruta, parpataka. cha.chi3 ▪ Brihat Hardira Khanda ▪ Vasavalehya - Brihat - Rasa Tarangini <p>Imp Ingredients: Vasa, Katuki, Haritaki, Bhumyamalaki, Bharangi, Ativisha, Abhraka bhasma, Shukti bahsma, Shankha bhasma etc,. Or Vasahareetaki lehya - Gada Nigraha</p> <ul style="list-style-type: none"> ▪ Jeevantaadi Ghrita ▪ Baladi Churna with warm milk (Ref-Bhavaprakash) | <p>Shodhana procedures and Rasayana</p> |
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DISCUSSION

Rationality in advising Pathya-Apathya

- To create unfavourable environment for the Viruses.
- To create Unfavorable contact surface for the virus at the portal entry i.e. Oropharynx, Nasopharynx
- Immunity boosting.

Rationality in advising the following formulations

Sudarshana Kadha / Ghana Vati

Ref: Bhashajya Ratnavali

Imp Ingredients: Kiratatikta, Haridra, Vacaha, Yashti, Amalaki, Guduchi, Katuki, haritaki, Pippali, Trikatu, etc.

Rationality: The formulation with potent herbs corrects the imbalance of tridosha and all types of fever.

Arogya Vardhini Rasa

- The nomenclature of the compound itself is suggestive of maintaining the health of a healthy individual and uplifting the health status. The Ingredients of Arogyavardhini Rasa includes

potent Sroto Shuddhikara drugs targets to clear the Sroto Dushti of Dhatus and Malas.

- Nimba Swarasa being a potent Anti-viral drug adds to the total drug effect in the line of reducing virus load/virulence.

Tribhuvanakirti Rasa

Ref: Yogaratnakara (Jwara)

Imp Ingredients- Hingula, Vatsanaabha, Trikatu, Pippali mula, Tankana. Bhavana Dravya- Fortified with Tulasi, Adraka, Dhattura Swarasa.

This Nobel preparation contains Sthavara Visha / Agada. i.e. Vatsanabha and Dhattura. Vatsanabha and Dhattura being Sthavara visha/Agada along with Jwarahara Dravyas. Tulasi has antiviral properties and Shunti being Amapachaka, Hingula is Rasayana. The procedure of Bhavana will potencies the compound simultaneously micronizes the particles of the formulation for better absorption and action.

Balachaturbhadra Churna

Ref: Chakradatta

Ingredients: Musta, Ativisha, Pippali, Kartakashringi

Rationality: The Composition reveals that it is a comprehensive formulation in Bala roga for infection and acts as Rasayana also.

Sanjivani Vati

Ref: Saharangadhara Samhita. Madhyama Khanda. 7/18-19

Imp Ingredients: Nagara, Vidanga, Pippali, triphala, vacha, Guduchi, ballataka, Vatsanaba, Gomutra.

Rationality: The Sthavara Visha/ Agada are potent Jwara hara and indicated even in Sarpadamsha (Snake bite). Gomutra being Vishahara and kaphahara acts actively against the condition.

Sarvatobhadra Rasa

Ref: Rasa Saara Sangraha, Jwaraadhikara

Ingredients: Hingulotha Parada, Gandhaka, Abhraka, Triphala, Trikatu, lavanga, Musta, Karpura, Kushtha etc.

The above potent Herbo-mineral compound targets the acute phase of respiratory distress and prevents the complications due to fever.

Kastoori Bhairava Rasa

Ref: Bhaishajya Ratnavali.5/813-818

Ingredients: Vatsanabha, Katuki, Kharpara, Lavanga, Swarna Bhasma, Rajata Bhasma, Kanta Loha, Dhattura, Jatiphala etc.

Rationality: This formulation indicated in all types of complicated fever contains Sthavara Visha which can act against Jangama Visha effectively.

Jayamangala Rasa

Ref: B.R. Jwaradhikara

Imp Ingredients: Swarna, Raupya Bhasma, Tamra, Vanga Bhasma

Bhavana in Dhattura, Shephali, Kiratatikta Kwatha, Dashamula Kwatha- 3 times in each Dravya.

Indications: Dhatugata Jwara and Bala Pushtikara.

Rationality: Most potent formulation considering the composition and Bhavana Dravya indicated in complicated fevers and acts as immune booster.

Shwasakuthara Rasa

Ref; Bahavaprakasha - Shwasaroga

Imp Ingredients: Shuddha Parada, Shuddha Gandhaka, Shuddha Manahshila, Shuddha Tankana, Vatsanaabha, Trikatu etc.,

Anupana: With Honey

Rationality: The above ingredients have been proved to be effective in combating with acute respiratory infections.

Sameerapannaga Rasa

Ref: Rasa Yoga Sagara

Imp Ingredients: Shuddha Parada, Shuddha Gandhaka Gauripashana, Haratala,

Bhavana: Tulasi Swarasa

Aunpana: Nagavalli Swarasa.

Indications: Kapha Roga and Sannipatika condition

Rationality: Gauripashana (As₂O₂) being the most potent in Sthavara Visha Varga and prepared in Kupipakwa method. This formulation is added with Tulasi and Nagavalli.

Kastoori bhairava Rasa:3- Brihat

Ref: Bhaishajya Ratnavali 5/819-826

Imp Ingredients: Loha Bhasma, Harataala, Taamra Bhasma, Vidanga, Abhraka Bhasma, Amalaki, Musta, pravaala.

Rationality: This formulation is indicated in all types of Jwara, Abhichaara, Bahutika Jwara, Bhuta-Preta-Pishacha jwara. Also specifically indicated in Jwara varying from Day 1, Day 3, Day 8 and Day 15.

Baladi Churna

Ref: Bhavaprakasha

Imp Ingredients: Bala, Ahwagandha, Gambhari fruit, Shatavari.

Rationality: Enhances Rogibala

Mala Sindhura

Ref: Rasa trangini

Imp Ingredients: Parada, Gandhaka, Rasa Karpura, Gouripashana

Bhavana: Kumari Swarasa.

Rationality: Potent preparation in severe conditions of respiratory disorders due to the presence of AS₂O₂.

Hemagarbha Pottali

Ref- Sharangadhara samhita

Imp Ingredients: Swarna, Parada, Gandhaka, vatsanabha, Tankana,

Bhavana with Ardraka Swarasa, Snuhiksheera and Chitraka Kwatha.

Vasanta Malani Rasa

Ref: Yogaratnakara

Ingredients: Swarna Bhasma, Mukta Bhasma., Shuddha Hingula, Shuddha Kharpara, maricha, etc.,.

Bhavana with Butter and lemon juice

Rationality: This formulation indicated in all types of complicated fever contains Sthavara Visha which can act against Jangama Visha effectively.

Bilvadi Gutika

Ref: Ashtanga Hridaya

Ingredients: Bilwa Mula, Tulasi Pushpa, Karanja Phala, Trikatu, Triphala, Haridra, Daruharidra

Bhavana with Aja Mutra (Goats' Urine)

Rationality: Commonly prescribed formulation for Sarpa Visha and Luta visha

GENERAL GUIDELINES FOR USING THIS PROTOCOL

1. As in any epidemic, take the travel history and contact history of the patient first.
2. Examine the patient well.
3. Assess the Rogi Bala using the ten-point clinical examination protocol (Dasha Vidha Pareeksha Vidhi) and calculate the functional status of the

patient including assessment of Koshta and Agni of the individual.

4. Order the needed laboratory or imaging panels as and when required
5. Definitely have an assessment of the vyaadhi-avastha in a meticulous manner, as some medicines may be contra-indicated in some specific avasthas.
6. Assess the status of ojus and predict the chance for an immediate casualty.
7. The selection and combinations of medicines should be done considering the Bala of Rogi, Agni, Koshta and the Rogavastha.
8. The dosage of each pharmaceutical preparation shall be fixed as per the classical guidelines and research updates.
9. The medicines described in each stage shall be utilized judiciously in the succeeding stages also.
10. General safety measures for doctors, paramedics and health workers need to be ensured in the facility.
11. The technological support of western medicine has to be ensured when and where necessary.

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