

Journal of **Ayurveda and Integrated Medical Sciences**

www.jaims.in



An International Journal for Researches in Ayurveda and Allied Sciences



No to

Journal of

Ayurveda and Integrated Medical Sciences

REVIEW ARTICLE

Mar-Apr 2020

Ayurvedic Preventive and Curative Protocol for COVID 19 - A Proposal

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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 Bhutabhishangaja 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, Tridoshahara, 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, Bhutabhishanga, 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

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Submission Date: 15/03/2020 Accepted Date: 19/04/2020

Access this article online **Quick Response Code**

Website: www.jaims.in

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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

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 ISSN: 2456-3110

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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 Bhutabhishanga 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 - Tridoshahara, 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 (*Adhishthana*) and etiological features (*Samuthaana Vishesha*). 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
- Adhishthana Pranavaha Srotas and later Sarva Shareera.
- Vikara Prakruti Daaruna
- Sadhyaasadhyata Saadhya 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

Bhutabhishanga (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 *Bhutabhishanga*, *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

Janapadodhwamsa, Aupasargika Roga) and Sankramika Roga. 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 (*Bhutabhishanga*). 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 (*Bhutabhishanga 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-herbomineral preparations) should be *Kapha Pittahara*, - *Tridoshahara*, *Rakta prasadaka/Shodak*, *Agada (Vishahara)*, *Jwara hara*, *Ashukaari*, *Bahukalpa Rasayana / Urjaskara* (drugs having immune-boosting properties).

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.	Haridra	Curcuma longa linn.	Zingiberaceae	Tikta, Katu	Laghu	Ushna	Katu	Curcumin	КР
2.	Manjishta	Rubia cordifolia linn.	Rubiaceae	Tikta, Kashya, Madhura	Guru, Ruksha	Ushna	Katu	Purpurin Manjistin Garancin	КР

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3.	Subaha	Adiantum lunulatum	Polypdiaceae	Kashaya, Tikta	Guru, Sheeta	Sheeta	Madhur a	Adiantone, Adiantoxide, Filicenal	КР
4.	Sukshma Ela	Elleteria cardimomu m Maton.	Zinfiberaceae	Madhura, Katu	Laghu, Ruksha	Sheeta	Madhur a	Cineol, Terpineole, Sabinene, Terpinene	VPK
5.	Palindi	Opercullina turpethum	Convulvu laceae	Tikta Katu	Laghu, Ruksha	Ushna	Katu	Turpethenic Acid, Coumerin derivative, Scopoletin.	КР
6.	Chandan	Santalum album Linn.	Santalaceae	Tikta Madhura	Laghu, Ruksha	Sheeta	Katu	Alpha and Beta Santalol	КР
7.	Katak	Strychnos potatorum Linn.	Loganiaceae	Madhura, Kashaya, Tikta	Laghu, Vishada Vikashi	Sheeta	Madhur a	Brucine, Loganin, Mannose,Linole ic Acid, Saponins like Sitosterol	KV
8.	Shirisha	Albizia lebbeck (L.)Benth.	Leguminosae	Madhura, Kashaya, Tikta	Laghu, Ruksha, Tikshna	Ishad Ushna	Katu	N-Benzoyl L Phenyl, Alanilol, Macrocyclic, Alkaloids, Flavonols, Saponins	VPK
9.	Sindhu- vaar/ *Subaha	Vitex negundo Syn. Vitex Trifolia Linn.	Verbenaceae	Tikta, Katu	Laghu, Ruksha	Ushna	Katu	Chrysophenol D, Casticin,Sabine ne,Terpinen 4- Ol, Globulol	KV
10.	Shleshmat aka	Cordia dichotoma Forst.F.	Boraginaceae	Kashaya, Tikta, Madhura	Snigdha Guru, Pichhil	Sheeta	Katu	Pyrrolizidine Alkaloids, Betulin, Flavonoids, Coumarins, Terpenes, Saponins	VP

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2) Analysis of other potent drugs from different classics

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

23. Pippali Piper longum Vata Kaphahara Kasa Shwasahara, Rasayana

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 antimicrobial 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
- 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.
- 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	Community Level 1. Bhumi Shuddhi - Sprinkling of extracts of Neem, Karanja etc. in the base of Gomutra	To create unfavourable environment for the Viruses.	
	2. Air Sanitization - Fumigation with Divya Dhoopa at Home and in Aerosol form at Hospitals and Community place - (Ref-Rasa tarangini - Bhootabhinivesha Adhikara) or Lakshadi Dhoopa (Susruta Kalpasthan.6/4) or turmeric, garlic peel, dried neem leaves, vacha (acorus calamus), sarjarasa (shorea robesta-gum resins) added with ghee		
	3. Social Distancing and other practices as per protocol		
	Personal Level 1. Dhooma nasya with Divya Dhoopa varti or Haridra Varti.	To create Unfavourable contact surface for the virus at the portal entry i.e.	
	2. Steam Inhalation with Tulasi leaves + Pudina Leaves+ Ajamoda+Nimba	Oropharynx, Naso-pharynx Immunity boosting	
	3. Gargling with — Turmeric + Triphala + Shunthi + Yastimadhu (Liquorice) + pinch of Salt + tankana (borax) in luke warm water - (All or Any of these)		
	4. To use Neem based herbal tooth paste for oral hygiene.		
	5. Khadiradi vati / Talisadi Vatakam / Eladi gutika/ Lavangadi Vati- for frequent chewing		
	6. Pratimarsha Nasya with Sarshapa Taila/Tila Taila/Anu Taila – instill 2 drops in each nostril.		
	7. Eye wash with Mild Triphaladi Kwatha (3 gm of Triphala Kwatha Churna + 100 ml of water- Boil for 3-5 minutes and filter) to be used for eye wash using Eyecup, Gomutra Arka - 1 ml + 98 ml Rose water + 1 ml honey		
	8. Proprietary preparations - Sri Netra (Sri Sri Tattva) or Ophthacare eye drops (Himalaya) or Sunetra (Sreedhareeyam) - 2-3 drops thrice daily)		
	Or		

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-

decoction prepared with Shadanga Churna- 10 gms+ Water 200 ml – Boiled, reduced to Half the quantity used for drinking.

Take adequate rest

Apathya

Heavy, Spicy, oily or fried foods; Junk foods, Curd, Cool drinks, Head bath; Mental stress; Exposure to fan/Ac should be strictly avoided.

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

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

and

People who are **Quarantined** with no Symptoms

Along with the measures advised for Primary prevention,

- 1. Bath with Water boiled with leaves of Neem, Aloes, Karanja, Nirgundi with Gomutra Arka.
- 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
- Or Shamshamani vati (Guduchi extract) 1-0-1. Ref siddhayoga sangraha.
- Sudarshana Choorna 5gms twice a day with honey (Ref-Bhaishajya Rathnavali)

Or Mahasudarshana churna – 5gms - twice a day with honey (Sharangadhara samhita)

Or Sudarshana kadha - Sudarshana Churna - 5mgs boiled in 100 ml of water reduced to half, to drink twice a day with warm water.

Or Sudarshana Ghana vati 1-0-1 (Ref-Rasatarangini)

5. **Arogya Vardhini Rasa** 2-0-2 (Ref-Rasarathna samuchaya) with Vishaghna Qwatha 20ml (Ref-Charaka Shadvirechana Shatashritiya Adhyaya).

With mild symptoms, like mild cough, Cold etc.

Additionally,

- 6. **Tribhuvanakirti Rasa** -2-2-2 with Honey-(Ref-Yogaratnakara) with Godanti bhasma
- Or Bilwadi Gutila (Ref. Ashtanga Hrudaya)

Or

7. Sanjivani Vati – 2-2-2(Ref - Sharangadhara Samhita)

Pratishyayahara, Kasahara and Jwarahara aushadhas.

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 mula, Tankana. Bhavana Dravya - Fortified with Tulasi, Adraka, Dhattura Swarasa - Anti viral, Jwarahara, Vishahara. ISSN: 2456-3110 REVIEW ARTICLE

C. Treatment Protocol

Stage I

COVID-19 positive

Patients having travel history with Marked Symptoms like Sneezing, Cough, Fever, Malaise etc.

In addition to the measures advised in primary Prevention,

- 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)
- Or Gorochanadi Gutika (Ref Rasatarangini)
- Or Kastooribhairava Rasa Madhyama (Ref-Bhaishajya rathnavali)

Or Jayamangala Rasa (Ref - Bhaishajya rathnavali)

- 4. Guduchyaadi Kashaya (Ref Sharangadhara samhitha) / Amritarishta
- Anulomana with Haritaki Churna /tablet or Drakshadi Kashaya
- 6. Brihat Hardira Khanda (Ref- Bhaishajya Ratnavali).

Dose and Anupana - As per Roga and Rogi Bala

Rationality:

Sarvatobhadra Rasa : [Ref:Rasa Saara Sangraha, Jwaraadhikara]

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

Rationality: 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 is indicated in all types of complicated fever. It 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,

To Halt

the progression of the disease to the next stage, Intervention is

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Required which should be on the lines of

- Ama Pachana,
- Pratishyayahara,
- Rogi bala Vriddhikara,
- Vishaghna
- Jwarahara and
- Kasa Shwasahara
- Vatanulomana Karma

	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 immunebooster.	
Stage II - with aggravated	Maha Sudarshana Ghanavati	More potent drugs with Superior
symptoms COVID-19	2. Vasaguduchyadi Kashaya (Ref- Sahasrayoga)	preparation methods for
Positive case	Or Amritarishta + Balarishta	combating Sannipataja conditions
Without co-morbidity	3. Jayamangala Rasa	
	4. Swasakuthara Rasa (Ref - Bhavaprakasha)	
	5. Ananda Bhairava Rasa – In case of Atisara (Diarrhoea) (Ref - Rasayoga Sagara)	
	6. Rasa Manikya with Ashwagandha Choornam (Ref - Bhaishajya Rathnavali)	
	Dose and Anupana - As per Roga and Rogibala	
	Shwasakuthara Rasa: Ref; Bahavaprakasha - Shwasaroga	
	Imp Ingredients: Shuddha Parada, Shuddha Gandhaka, Shuddha Manashila, Shuddha Tankana, Vatsanaabha, Trikatu etc.,	
	Anupana: With Honey	
	Rationality: The above ingredients have been proved to be effective in combating with acute respiratory infections	
	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> .	
With Co-Morbid Factors	With Co-morbid factors	Formulations of Arsenic
Elderly person and with Alpa	1. Jayamangala Rasa	(Haratala - AS_2S_3 , Manashila - AS_2S_2 and Gauripashana - AS_2O_2
Rogi bala	2. Sameera Pannaga Rasa (Ref- Rasayogasagar)	in purified form.
	Or	Named as - Rasamanikya,
	Kastoori Bhairava Rasa: 3-Brihat (Ref-Bhaishajya rathnavali)	Sameerapannaga Rasa and Mallasindura are highly indicated
	3. Pushkaramoolasava + Pippaladyasava	in aggravated Kapha-Vata Dosha diseases and especially
	4. Bharangyadi Kashaya	respiratory conditions.

ISSN: 2456-3110 REVIEW ARTICLE

	5. Baladi Churna with warm milk (Ref-Bhavaprakash)		
	Dose and Anupana - As per Roga and Rogibala		
	Samonyananaga Para Pofi Para Voga Sagara		
	Sameerapannaga Rasa Ref: Rasa Yoga Sagara Imp Ingredients: Shuddha Parada, Shuddha Gandhaka Gauripashana, Haratala, Tulasi Swarasa Bhavana, Aunpana: Nagavalli Swarasa.		
	Indications: Kapha Roga and Sannipatika condition		
	Rationality: Gauripashana (AS_2O_2) 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.		
Stage III Dhatu Paaka/Dhatugata Jwara	 Mallasindhura- (Ref- Rasa Tarangini- Shwasa-Kasa- Peenasa) Contains - Gauripashana (AS₂O₂) 	Aggressive treatment with protecting Rogi Bala (Ojus).	
Lakshana	 Suvarna Malini Vasanta Rasa - (Ref- Yoga Ratnakara)/ Or Vasanta Malati Rasa - (Ref-Bhaishajya rathnavali) 		
	3. Kanakasava + Dashamoolarista		
	4. Bharangyadi Kashaya		
	5. Baladi Churna with warm milk (Ref-Bhavaprakash)		
	6. Frequent Nebulization with Bharagnyadi Arka		
	Dose and Anupana - As per Roga and Rogi bala		
Stage IV Upadrava lakshana	Hemagarbha Pottali (Ref-Sharangadhara samhitha) Or Siddhamakaradhwaja Mallasindhura	Superior Preparations with potent ingredients used for enhancing Rogi bala.	
Acute Respiratory	Balarishta + Kanakasava	Oorjaskara	
Syndrome complications	4. Bharangyadi Kashaya		
	Z.ididiigjadi iddiidja		

Mar-Apr 2020

After Discharge

Punaravartaka Jwara Chikitsa

To reduce the viral Load and prevent the relapse of the condition

Shareera Shuddhi and Rasayana Chikitsa

- Mridu Virechana or Anulomana with Haritaki /Aragwadhadi Qwatha
- Kiratatiktadi Kashaya Kirata, Musta, katuki, Amruta, parpataka. cha.chi3
- Brihat Hardira Khanda
- Vasavalehya Brihat Rasa Tarangini

Imp Ingredients: Vasa, Katuki, Haritaki, Bhumyamalaki, Bharangi, Ativisha, Abhraka bhasma, Shukti bahsma, Shankha bhasma etc,. Or Vasahareetaki lehya - Gada Nigraha

- Jeevantyaadi Ghrita
- Baladi Churna with warm milk (Ref-Bhavaprakash)

Shodhana procedures and Rasayana

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 potencify 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 AS_2O_2 .

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.
- 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
- Definitely have an assessment of the vyaadhiavastha 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.
- 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.

ACKNOWLEDGEMENT

Our prayer on the lotus feet of Pujya Shri Deshikendra Maha Swamiji, Sri Kshetra Sutturu Math; Pujya Sri Sri Ravishankar Gurudev, Art of Living International Ashram, Bengaluru and Pujya Sri Veerendra Heggade Ji, Dharmadhikari, Sri Kshetra Dharmasthala and Hon'ble President SDM Educational Society, Ujire for the Divine Blessings and Inspiration.

My sincere thanks and gratitude to Sri Surendra Kumar Ji, Hon'ble Vice President and Shri Yashovarma Ji, Hon'ble Secretary, SDM Educational Society, Ujire for their guidance and encouragement.

My sincere acknowledgements to the Principal and teaching staff of SDMIAH, Bengaluru for Support and inputs.

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How to cite this article: Prof. Dr. Sarbeswar Kar, Dr. B Gurubasavaraja, Dr. Vikaram S, Dr. Sriharsha KV, Dr. Ranjani Deshpande. Ayurvedic Preventive and Curative Protocol for COVID 19 - A Proposal. J Ayurveda Integr Med Sci 2020;2:92-108.

Source of Support: Nil, **Conflict of Interest:** None declared.

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