



## A ROLE OF TRILOKYA CHINTAMANI RAS IN THE MANAGEMENT OF COVID PANDEMIC: A REVIEW

<b>Dr. Karan Prakash Sharma*</b>	BAMS, M.D. Scholar P.G. Department of Kayachikitsa, National Institute of Ayurveda, Jaipur, Rajasthan. *Corresponding Author
<b>Dr. Divya Agrawal</b>	BAMS, M.D. Scholar P.G. Department of Kayachikitsa, National Institute of Ayurveda, Jaipur, Rajasthan.
<b>Prof. Ram Kishor Joshi</b>	BAMS, M.D. (Ayu.), Ph.D. (Ayu.), Professor & Head P.G. Department of Kayachikitsa, National Institute of Ayurveda, Jaipur, Rajasthan.

**ABSTRACT** SARS-CoV-2 a virus born disease spread by droplet infection involving multi system failure but the main system affected by it is respiratory system. In this pandemic condition, when there is no treatment, Ayurveda offers various drugs that have proven to be highly useful in treating this condition, one of which being Trilokya Chintamani Ras, which has proven to be a miracle in treating mild to severe instances of covid 19. This medicine proved to be a life-saving elixir. It is a mineral compound that contains Bhasmas from several minerals. The minerals utilised in this drugs' shown antiviral properties, preventing cytokine storm in mild to moderate instances, while also acting as ambrosia in covid 19 patients.

**KEYWORDS :** Bhasmas, covid 19, cytokine storm, elixir, mineral compound, virus

### Introduction:

SARS-CoV-2 is a disease that primarily affects the respiratory system, as well as the gastrointestinal, neurological, and cardiovascular systems. It is a disease produced by a droplet infection in the patient; some patients may experience signs of respiratory system involvement, such as fever, malaise, sore throat, dry cough, and dyspnea, while others may remain asymptomatic and act as a carrier. A virus is made up of a protein molecule that only contains RNA that is dead outside of the host; the virus requires host machinery to replicate and cause disease. When this virus enters the host through a droplet, it attaches to the epithelial cells of the host's nose and throat. The virus then invades the host's cells and enters the nucleus of the epithelial cells, where it hijacks the host machinery to transcribe the m-RNA and produce the viral protein. The host cell is therefore killed, and numerous viruses are generated, which then infiltrate the host's healthy cells. During this procedure, the infected cell is exposed to the body's innate immune system, which releases cytokines that cause inflammation in the affected tissue. This viruses bind to angiotensin converting enzyme<sup>2</sup> which are mainly present in lungs, hearts, kidney, bladder<sup>[1]</sup>. Therefore, inflammatory response is particularly seen in at these sites, mainly in the lungs which is the main site for ACE2 expression the immune response against ACE2 virus bound molecule pneumonitis when lungs are involved in serious cases. Different signs and symptoms of the disease are observed according to the severity.

### Ayurvedic Perspective:

Ayurveda has its own strategy to treating a newly discovered condition. In the elaboration of an unknown ailment, Ayurveda takes a three-pronged approach: the natural history of the disease (*Vikara Prakrti*), the location of the diseased process (*Adhishthana*), and etiological factors (*Samuthaana Visheshha*). The disease's detailed explanation can be described along the lines of *Trisutra Ayurveda*.

### Symptoms of the COVID-19 Patients:<sup>[2]</sup>

Asymptomatic	COVID nucleic acid test positive. Without any clinical symptoms and signs and the chest imaging is normal
Mild	Symptoms of acute upper respiratory tract infection (fever, fatigue, myalgia, cough, sore throat, runny nose, sneezing) or digestive symptoms (nausea, vomiting, abdominal pain, diarrhea)
Moderate	pneumonia (frequent fever, cough) with no obvious hypoxemia, chest CT with lesions.
Severe	Pneumonia with hypoxemia (SpO <sub>2</sub> < 92%)
Critical	Acute respiratory distress syndrome (ARDS), may have shock, encephalopathy, myocardial injury, heart failure, coagulation dysfunction and acute kidney injury.

Trilokya Chintamani Rasa is found to be effective in in all the cases of the covid 19 ranging from mild to severe patients.

### Materials & Methods:

Trilokya Chintamai Rasa is a herbomineral coupound mentioned in Rasendra Sara Sangraha in vata vyadhi adhayay.

### Contents of Trilokya Chintamai Rasa:<sup>[3]</sup>

S. No	Contents	Latin Name	Ratio	Rasa	Guna	Veerya	Vipaka
1.	Hirak Bhasma	Diamond	1 Part	Shada Rasa	Snigdha	-	-
2.	Swarna Bhasma	Aurum	1 Part	Madhur	Laghu, Snigdha	Sheeta	Katu
3.	Rajat Bhasma	Argentum	1 Part	Kasaya, Amla	Snigdha, Sara, Lekhana	Sheeta	Madhur
4.	Loha Bhasma	Ferrum	1 Part	Tikta, Kashaya	Ruksha, Guru, Lekhana	Sheeta	Madhur
5.	Abharak Bhasma	Mica	1 Part	Madhur Rasa	Snigdha	Sheeta	Madhur
6.	Ras Sandoor	Red Sulphide of Mercury	8 Part	Katu, Tikta	Ruksha, Laghu	Ushna	Katu
7	Tamra	Cuprum	1 Part	Tikta, Kashaya, Madhur	Laghu, Shigdha	Ushna	Katu
8	Mukta	Pearl	1 Part	Madhur	Laghu	Sheeta	Madhur
9	Shankha	Seashell	1 Part	Madhur, Kashaya	Laghu, Ruksha, Teekshan	Sheeta	Katu
10	Hartal	Orpiment	1 Part	Kashaya, Katu	Snigdha, Ushna	Ushna	Katu
11	Majshita	Rubia Cardifolia	QS	Madhur, Tikta, Kashaya	Guru, Ruksha	Ushna	Katu
12	Manashila	Realgar	1 Part	Katu, Tikta	Snighdha, Guru,	Ushna	Katu
13	Chitrak Mool	Plumbago Zeylanica	QS	Katu,	Ruksha, Loghu	Ushna	Katu
14	Nirgundi	Vitex Nergundo	QS	Katu, Tikta	Laghu	Ushna	Katu
15	Praval	Coral	1 Part	Madhur	Laghu	Sheeta	Madhur

16	Soorankand	Amorphophallus Campanulatus	QS	Katu, Kashaya	Laghu, Ruksha, Tikshan	Ushna	Katu
17	Arka	Calotropis Gigantea	QS	Katu, Tikta	Laghu	Ushna	Katu
18	Thooar	Euphorbia Nerifolia	QS	Katu	Laghu, Tikshan	Ushna	Katu
19	Sahajeena	Moringa Oleifera	QS	Katu, Tikta	Laghu, Ruksha, Tikshan	Ushna	Katu

#### Preparation Method:<sup>[4]</sup>

Hirak, Swarna, Rajat, Tamra, Loha, Abharak, Mukta, Praval, Shanka, Manashila, Hartal are taken in specific proportions and Bhavna of Chitraka Mool Kwatha is given to them for 7 days, followed by Bhavna with Nirgundi Kwatha, Shoorandkand, Arka Dugdh. The mixture is then cured and poured into the Kapardikas. These Kapardikas are preserved in Sharava before being administered Gaja Puta. This Kapardiaks are pulled out and crushed the next day. Then, in equal parts, Rasasindoor and Vaikranta are added, followed by two rounds of Chitraka Mool Kwatha Bhavna and seven rounds of Sahajeena Kwatha Bhavna. This is all combined together, and Vati are generated as a result.

**Dosage:** 125mg to 250mg.

#### Method of Administration:

In conscious patient it can be given by oral route, in patient on BIPEP OR CPAP it can be crushed and mixed with honey and painted on the soft palate and the patient on ventilator then one tablet is to be given directly by the endotracheal tube.

#### Pharmacological action of drugs:

1. Heerak Bhasma - Ayurvedhak, Balvardhak, Tridosahar, it acts as Amrita in Diseases.<sup>[5]</sup>

2. Swarna Bhasma - Kshaya, Agnimandhya, Kasa Shwasahar,<sup>[6]</sup> Ojo Dhatu Vivardhanam, Sarva Vishahar, Hridya, Tridoshara, Balya.<sup>[7]</sup>

3. Ropya Bhasma - Prahemahara, Madhumehahar, Balkar, Vishnashak, Jwarahar, Agnimandhya Har, Vataprakopjeeta.<sup>[8]</sup>

4. Loha Bhasma - Kapha-Pitta Har, Prahema Nashak, Shwasa Nashak, Hridya, Madhumeha Nashak,<sup>[9]</sup> Katrim Visha Nashak, Ayustaphana, Kapha Nashak, Sotha Nashak.<sup>[10]</sup>

5. Abharaka Bhasma - Kshaya, Shwasa, Kasa, Prahema Nashak.<sup>[11]</sup>

6. Ras Sindoor - Jwara, Jeerna-Jwara, Kasa, Shwasa, Prameha Har, Dhatu Vardhak, Kamala Nashak.<sup>[12]</sup>

7. Tamra Bhasma- Visah Naskara, Pitta Nisharaka, Lekhana, Kasa Shwasa Nashak, Kshaya Rog Har.<sup>[13]</sup>

8. Praval- Kasa Shwasa Nakshak, Vishaghna, Bhootnashan, Rasayana Bal Vardhaka.<sup>[14]</sup>

9. Mukta- Kasa Shwasa Nashak, Balvardhaka And Pushti Vardhaka.<sup>[15]</sup>

10. Hartal - Bhootjwaranasha, Mritriyu Nashaka.<sup>[16]</sup>

11. Shankha- Tridosghna, Pitta kapha nashak, Dushta Rakta nashak.<sup>[17]</sup>

12. Manashila Bhasma- Lekhan, Kasashwasahara, Bhootvinishaka, Agnimandhyakar, Rasayana, has antibacterial and antifungal properties.<sup>[18]</sup>

13. Chiktrak Mool- Kasa Nashak, Shotha Har, Kapha Vata Nashak, antiviral,<sup>[19]</sup> anti inflammatory actions, wound healing activities.<sup>[20]</sup>

14. Arka Mool- Agnideepna, Pachana, Jwarghna, Kusthghna, Kandu-Krimi-Rakt Vikara-Sothnashak.<sup>[21]</sup>

15. Nirgundi- Kapha Vata Naashaka, Jwara Nashaka, Kapha Nashaka, Shotha Nashak, antipyretic properties, antibacterial, cardiotoxic, hepatoprotective, it has mast cell stabilizing effect.<sup>[22]</sup>

16. Thooar Dugdha- Jwara Nashaka, Kapha Nashaka, Visha Nashaka.<sup>[23]</sup>

#### Discussion:

Trilokya Chintamani Rasa is boon for the patients of covid 19 those suffering in mild to severe situation. It contains Herak Bhasma which is Shad Rasa Yukta and Tridosha Shamak acts on all the organs and balances each Doshas, Ras Tarangani has mentioned that it makes body as strong as a mountain by destroying every disease it acts as an Amrita and provide new life to the patients.

Swarna Bhasma is also Tridosha Hara and may help improve Bala & vitality, it pulls down the Visha Prabhav which can be considered as it prevents the replication of virus and also it helps to prevent cytokine storm by its Balya and Ojo Vivardhana nature, it helps to increase the immune response and protect other cells to get infected by it.<sup>[24]</sup> It also cures Agnimandhiya, which helps boost the metabolism and builds more leukocytes to prevent subsequent infections. The gastrointestinal symptoms in these people can also be reduced. It also reduces the Ground Glass Opacities in chest radiography because of its nature, and helps reduce the symptoms of Kasa and Shwasa. It also helps protect the heart with its Hridya nature and also strengthens the body to support the viral harm. It also helps protect vital organs using the qualities of Ojovivardhan. A recent study reported that a gold drug, Auranofin reduced the expression of SARS-COV-2-induced cytokines in human cells. The study claimed that it could be a useful drug to limit SARS-CoV-2 infection and associated lung injury. It helps to prevent cytokine storm. Swarna Bhasma increases the phagocytic activity of macrophages. It has anti-inflammatory effects and helps to increase humoral and cellular response.

Ropya bhasma possesses Lekhan properties that aid to remove the mucus build up in the alveoli, and its Kapha and Vata Shamak properties aid to pacify the Shwasa and Kasa that occur as symptoms of the disease. It also has vishnashak properties that prevent the replication of the virus. It helps to reduce fever through its Sheeta Guna and Snigdha Guna, which means it directly prevents the immune-mediated reaction to the virus by preventing its further reproduction.<sup>[25]</sup> It also gives the body the strength it needs to withstand the virus's damage. It also has Madhumehahar and Pramehahar properties, which means it inhibits an increase in high blood sugar levels, which is a consequence of covid infection. It also acts as viricidal drug which helps to neutralize the SARS-CoV-2 virus by degrading the capsid protein. The effects are due to upregulating the production of endogenous protective factors and suppressing the cytokine storm.

Loha bhasma possesses the qualities of Tridosahar and Kratrim vishashak. These viruses enter the body from outside and kill bodily cells that are damaging to the body, acting as a Kratrim Visha. Its Lekhan, Ruksha Guna, and Shopa Nashak properties aid in drying up the secretion accumulated in the alveoli as a result of an inflammatory reaction. It helps to provide vitality to the organs by its Ayustaphaka properties, it is also Madhumeha Naskah aids to maintain normal blood sugar levels by protecting the pancreas from inflammation. It also protects the heart via the characteristics of Hridya. Shwasa (dyspnoea) can also be prevented by its Shwasahar properties. It contains antiviral properties.

Abhrak Bhasma primary job is to support the respiratory system. For the respiratory system, it's rasayana. It strengthens the respiratory system against any impairment with its balya qualities. It helps to cure Kshaya of the respiratory system. It has Madhur Rasa which provides strength to the lungs and it also has Shwasa Har and Kasa Har properties it protect the respiratory system. It also has Prahamehar properties and helps to maintain normal blood sugar level.

Rasa Sindoor pacifies Jwara, which means it reduces the inflammatory reaction in the body by eliminating the virus or bacterium. It contains Kasa-Shwasahar and Pramehanashak properties. It boosts bodily strength by enhancing anabolism in the body, which aids in preventing injury or loss caused by the inflammatory reaction in the body. It has Kamla Nashak characteristics, which aid to prevent the liver from malfunctioning.

Nirgundi is a Kapha Nashak and Shotha Nashak herb with antipyretic (jwara hara) effects. It helps to reduce fevers of Kapha origin and to dry out the exudative mucus that has built up in the alveoli due to these qualities. It is a mast cell stabilizer therefore it helps to relieve asthma and also aids in the treatment of ARDS caused by inflammation.<sup>[26]</sup>

**Praval Bhasma** is *Kasa Shwasa Nashaka* and *Vishanghna* so helps to kill the viruses. It has *Bala Vardhaka* properties which helps to increase the strength in patients of SARS CoV 2.

**Manashila** is *Kasa-shwasahar* in nature and act as a *Rasayana Dravya*. It also contains *Kaphghna* properties, which aids in the reduction of secretions in the alveoli. Its antifungal and antibacterial activities aid in the prevention of secondary infections in the lungs caused by bacteria and fungus. Its *Lekhan Guna* aids in the dissolution of clots produced in the vessels.

**Mukta** - Its *Kasa-Shwasahar* properties aid in the management of cough and cold symptoms.

**Hartal** - It has antibacterial qualities and aids in the reduction of toxins generated by bacteria.

**Chitrakamool** possesses antiviral qualities that aid to limit virus multiplication and anti-inflammatory characteristics that aid to halt inflammation, protecting the patient from further difficulties.

**Thooar Dugdha** helps to detoxify the toxins produced by the bacteria or virus and *Kaphanashak* helps to detoxify the body.

In mild instances, the symptoms felt are those of the respiratory or gastrointestinal systems. If the respiratory system is implicated, symptoms such as fever, myalgia, sore throat, cough, sneezing, and runny nose are observed, which are alleviated by the drug's *Jwarahar* (antipyretic), *Balya* (strength), *Kasha* (cough), and *Shwasahar* (dyspnea) characteristics. If gastrointestinal problems are present, this drug helps to alleviate them since the drugs found in it are *Agnimandhyahar* (improves digestive fire), which helps to alleviate the symptoms. This drug relieves all symptoms and aids in the prevention of disease progression. If this drug is administered just in mild cases, it will arrest the advancement of the disease in moderate and severe instances.

In moderate instances, symptoms include a prolonged fever with a cough that progresses to pneumonitis. This drug possesses *Vishahar* (antitoxic) qualities that aid to halt viral multiplication, as well as *Jwarahar* (antipyretic) activity. It also relieves cough symptoms. *Ras Sindoor*, *Roopya*, and *Lauha Bhasma* have *Lekhan* and *Kapha Nashak* qualities that aid in the resolution of built-up pneumonia. The lesion detected on a CT scan is likewise resolved by this medicine, as is pneumonia.

In severe situations, pneumonia might persist, resulting in hypoxemia. This is noticed when the alveoli are loaded with exudates, which reduce the spaces for gaseous exchange, resulting in a reduced exchange of gases into the blood and the patient developing dyspnea. It is shown as ground glass opacities on a CT scan. This medicine dries out the built-up secretions in the form of exudates, causing the symptoms of dyspnea to lessen and the oxygen saturation to increase.

In many situations, consequences of post covid are also shown as excessive blood glucose, distorted hepatic function, coagulation, cardiac illness, which are not found if this treatment is used. Clot formation is halted by the *Raupyra*, *Lahua*, and *Ras Sindoor's Laghu*, *Ruksha*, and *Lekhana* properties. Liver is protected by *Swarna Bhasma* and *Rassindoor*. Blood sugar is maintained by *Ras Sindoor*, *Loha bhasma*, *Roopya Bhasma*, *Swarna*, *Heerak Bhasma*, and *Kumari* also protect the heart, and as a result, all symptoms and complications are alleviated by this medication.

### Conclusion:

*Trilokya Chintamani Rasa* is a mineral compound that has been shown to be highly beneficial in treating mild to severe instances of covid 19. It also aids in the prevention of disease consequences. It not only alleviates symptoms but also aids in the prevention of health problems and the loss of a person's life. It functions as a life-giving elixir in the covid 19 patients with no consequences. It also gives the body strength and boosts the immune system without having any negative side effects.

### REFERENCES:

- [1] Yuki K, Fujiogi M, Koutsogiannaki S. COVID-19 pathophysiology: A review. Clin Immunol. 2020 Jun;215:108427. doi: 10.1016/j.clim.2020.108427. Epub 2020 Apr 20. PMID: 32325252; PMCID: PMC7169933.
- [2] Yuki K, Fujiogi M, Koutsogiannaki S. COVID-19 pathophysiology: A review. Clin Immunol. 2020 Jun;215:108427. doi: 10.1016/j.clim.2020.108427. Epub 2020 Apr 20.

- PMID: 32325252; PMCID: PMC7169933.
- [3] Shri kaviraja Ambika dutta Shastri , Bhaisajyaratnavali, chaukhambha prakashan Varanasi edition 18, vata vyadhi adhayay page no 535.
  - [4] Shri kaviraja Ambika dutta Shastri , Bhaisajyaratnavali, chaukhambha prakashan Varanasi edition 18, vata vyadhi adhayay page no 535.
  - [5] Pandit Kashinathashastri Rasatarangani, motilal banarsidas, edition 11, chapter-23, verse- 26-28, page no-604.
  - [6] Pandit Kashinathashastri Rasatarangani, motilal banarsidas, edition 11, chapter-15, verse- 69-80, page no-367.
  - [7] Neetu singh SWARNA BHASMA AND GOLD COMPOUNDS: An innovation of pharmaceuticals and for illumination of therapeutics ijpr jan –feb 2012.
  - [8] Pandit Kashinathashastri Rasatarangani, motilal banarsidas, edition 11, chapter-15, verse- 46-75, page no-509.
  - [9] Pandit Kashinathashastri Rasatarangani, motilal banarsidas, edition 11, chapter-20, verse- 83-96, page no-508.
  - [10] Kashinathashastri Rasatarangani, motilal banarsidas, edition 11, chapter 20, shloka no. 86, page no- 507 and 511.
  - [11] Pandit Kashinathashastri Rasatarangani, motilal banarsidas, edition 11, chapter-10, verse- 72-89, page no-234.
  - [12] Pandit Kashinathashastri Rasatarangani, motilal banarsidas, edition 11, chapter-6, verse- 180-198, page no-140-141.
  - [13] Kashinathashastri Rasatarangani, motilal banarsidas, edition 11, chapter 27, verse no. - 45,46 page no 419.
  - [14] Kashinathashastri Rasatarangani, motilal banarsidas, edition 11, chapter 23, shloka no. 139-141, page no- 629.
  - [15] Kashinathashastri Rasatarangani, motilal banarsidas, edition 11, chapter 23, shloka no. 72-74, page no- 614.
  - [16] Kashinathashastri Rasatarangani, motilal banarsidas, edition 11, chapter 11, shloka no. 52-55, page no-252.
  - [17] Prasad Anjali Bajinath et al: Pharmaceutical Characterization & Pharmacological Consideration Of Shankha Bhasma: An Ayurvedic Formulation. International Ayurvedic Medical Journal {online} 2020 {cited April, 2020}
  - [18] Saravaman B. Antifungal and antiy bacterial activities of Shodit Manashila prepared By agashtya Patra Swasaras, Ayurpharma Int J Ayur Alli. Sci. V104, No 10, 2015
  - [19] Neubert R. Schmit PC, Etal. Avtivial activities of some Ethiopian medicinal plants used for the treatment of dermatological disorders., J Ethnopharmacol, 2006,104: 182-187
  - [20] Dang GK et al. antiinflamatory activity of Phyllanthus emblica, plumbgo zeylanica and cypreus rotondum in acute model of inflammation. Phytother res...2011; 25(6),904-908
  - [21] Smita A. Dudhe. Therapeutic significance of Arka (Calotropis procera) and its recent advances: A Review. Int. J. Res. Ayurveda Pharm. 2019;10(4):32-37
  - [22] Praveen kumar Et al. Pharmacological properties of Nirgundi : a review, IJAPR, February 2020, volume B, Issue 2
  - [23] Bhavaprakasha nighantu of wishwanatha diwedi shastri ninth edition reprint 2015, guduchadi varga verse- 71-74.
  - [24] Prashant Kumar Sarkar Ayurvedic metal nanoparticle could be a novel antiviral agent against SARS- CoV-2, INTRENATIONAL NANOLETTERS december 2020
  - [25] Prashant Kumar Sarkar Ayurvedic metal nanoparticle could be a novel antiviral agent against SARS- CoV-2, INTRENATIONAL NANOLETTERS december 2020
  - [26] Prashant Kumar Sarkar Ayurvedic metal nanoparticle could be a novel antiviral agent against SARS- CoV-2, INTRENATIONAL NANOLETTERS december 2020