

ROLE OF RAS AUSHADHI DURING COVID-19 PANDEMIC

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ABSTRACT

Corona virus disease (COVID-19) is an infectious disease caused by a newly discovered corona virus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.^[1] This scenario has given the opportune time to our Traditional Indian medicine viz Ayurveda and Yoga to take the road as a fresh approach for public health and disease management. Modern medicine with its curative approach while Ayurveda & Yoga can contribute to prophylaxis & protection from the virus. Ayurveda is the meeting of medicine and metaphysics and to start with, good health is not only based on three bodily humors that is Vata, Pitta, Kapha but also the prakrati or body constitution of the person that is connection of the person with environment, with the soul. Ras aushadhi can play major role in current scenario due to its quick action, easy to take, more effective than kashtha aushadhi, lesser duration of treatment.

KEYWORDS: Ras aushadhi, Herbo-mineral composition, Sevankaal, COVID-19 pandemic.**INTRODUCTION**

The COVID-19 pandemic in India is part of the worldwide pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first case of COVID-19 in India, which originated from China, was reported on 30 January 2020. India currently has the largest number of confirmed cases in Asia and has the second-highest number of confirmed cases in the world after the United States with more than 9 million reported cases of COVID-19 infection and more than 100 thousand deaths. By mid of 2020, India had approached in position of conducting highest number of daily tests in the world which subsequently translated to a high number of positive cases. The per day cases peaked mid-September in India with over 90,000 cases reported per day and have since come down to below 40,000 in December^[2,3]

What is the difference between Influenza (Flu) and COVID-19?

Influenza (Flu) and COVID-19 are both contagious respiratory illnesses, but they are caused by different viruses. COVID-19 is caused by infection with a new coronavirus (called SARS-CoV-2) and flu is caused by infection with influenza viruses.

There are some key differences between flu and COVID-19. COVID-19 seems to spread more easily than flu and causes more serious illnesses in some people. It can also take longer before people show symptoms and people can be contagious for longer. Another important difference is there is a vaccine to protect against flu. There is currently no vaccine to prevent COVID-19. The best way to prevent infection is to avoid being exposed to the virus. More information about differences between flu and COVID-19 is available in the different sections below.

Because some of the symptoms of flu and COVID-19 are similar, it may be hard to tell the difference between them based on symptoms alone, and testing may be needed to help confirm a diagnosis. Flu and COVID-19 share many characteristics, but there are some key differences between the two.

SYMPTOMATOLOGY^[4]

Some symptoms of COVID-19 can be relatively non-specific; the two most common symptoms are fever (88 percent) and dry cough (68 percent). Among those who develop symptoms, approximately one in five may become more seriously ill and have difficulty in breathing. Emergency symptoms include difficulty

breathing, persistent chest pain or pressure, sudden confusion, difficulty waking, and bluish face or lips; immediate medical attention is advised if these symptoms are present.^[14] Further development of the disease can lead to complications including pneumonia, acute respiratory distress syndrome, sepsis, septic shock, and kidney failure.

Some symptoms usually appear sooner than others. In August 2020, scientists at the University of Southern California reported the "likely" order of initial symptoms of the COVID-19 disease as a fever followed by a cough and muscle pain, and that nausea and vomiting usually appear before diarrhea. This contrasts with the most common path for influenza where it is common to develop a cough first and fever later.

Fever

Fever is the most common symptom of COVID-19. The fever may be high or low. Most people with COVID-19 develop a fever at some point.

Respiratory

Most people with COVID-19 also have a cough, which could be either dry or a productive cough.

Some symptoms, such as difficulty breathing, are more common in patients who need hospital care.^[2] Shortness of breath tends to develop later in the illness.

Loss of smell or taste

About 40% of people temporarily lose their sense of smell (called anosmia), experience changes in how food tastes (dysgeusia), or have other disturbances to their normal abilities to smell or taste. This symptom, if it is present at all, often appears early in the illness. A disturbance in smell or taste is more commonly found in younger people, and perhaps because of this, it is associated with a lower risk of medical complications. Although most people with COVID-19 do not experience these symptoms, it is an unusual symptom for other respiratory diseases, so it is used for symptom-based screening.

Neurological symptoms

Patients with COVID-19 can present with neurological symptoms that can be broadly divided into central nervous system involvement, such as headache, dizziness, altered mental state, and disorientation, and peripheral nervous system involvement, such as anosmia and dysgeusia.

Skin rashes

Various skin rashes have been observed in COVID-19 patients, including morbilliform rash, livedo reticularis, and vesicular blisters.^[18] The so-called "COVID toes" are pink to violaceous papules arising on the hands and feet. These chilblain-like lesions often occur only in younger patients and do not appear until late in the disease or during convalescence.

Other

Other typical symptoms include fatigue, and muscle and joint pains. Other symptoms are less common among people with COVID-19. Some people experience gastrointestinal symptoms such as loss of appetite, diarrhoea, or nausea. Some people have a sore throat, headache, or vertigo. Less common symptoms include chills, vomiting, coughing out blood, diarrhea, and rash.

RAS AUSHADHI – The Ras aushadha dravya's refers to the herbo-mineral or metal or mineral formulations use for therapeutic purpose. Some of these formulations contain heavy metals like Mercury, Lead, Tin and Arsenic etc.

Types of Ras aushadi

Ras ausadh is although named after mercury ('Rasa' or 'Parada'), can be classified in two distinct classes Mercurials and Non-mercurials. Based on the method of preparation, the mercury based drugs are classified as Khalvi rasa, Parpati rasa, Kupipakwa rasa/sindura and Pottali rasa. The non-mercurial preparations include Dhatubhasma, Satva and Pisti. Apart from these, there are some other herbomineral ayurvedic dosage forms (kalpana) also, where these rasdravyas are formulated along with herbal drugs.

Important factors related to Ras aushadhi administration

Following factors must be kept in mind during administration of Ras aushadhi – a) Dose (Proper/Lesser/Overdose or excessive dose) All the Rasadravya's mentioned in the classical texts are described with their individual therapeutic doses. Therapeutically it indicates the proper dose of the drug best suited for the patient. From pharmacological point of view during preparation of the medicines, if the raw drugs are not taken in the proper quantity then desired action on body may not be obtained or the formulation may show unwanted actions.^[5] Intake of drug in Alpamatra (lesser dose), or Atimatra (over dose) can lead to toxic or untoward effects on patients.

Time (Appropriate/Inappropriate)

Here time refers to the period (kaala) of administration of medicine (Sevana Kaala)^[6] or duration of medication (sevana avadhi). If the prepared medicine is not taken at proper time and at proper intervals as mentioned in the texts, then complications or inadequate action of the drugs may be noticed.

Mode/Vehicle (Anupana) for drug administration (Appropriate/Inappropriate)

Each of the ras aushadhi's mentioned in the classical texts is advised to be administered with specified Anupana or vehicle which helps in proper assimilation and absorption of the medicine.^[7,8] It also helps in controlling the untoward effects of the prescribed drug.

Sutshekhhar Ras^[9]

It is a vital Ayurvedic medicine which acts as a detoxifier and possess characteristics like antioxidant, neuroprotective, antacid, digestive stimulant, cardioprotective, anti-depressant. This remedy useful in treating various disorders related to stomach, digestion and heart.

Key Ingredients

- Shuddha parad
- Tankan bhasma
- Shuddha gandhak
- Shuddha vatsanabha
- Sonth (dried ginger)
- Shankh bhasma
- Pippali (long pepper)
- Kali mirch (black pepper)
- Dalchini (cinnamon)
- Shuddha datura seed
- Elaichi (cardamom)
- Nagkesar – mesua ferrea
- Tejpata (indian bay leaf).

Key Benefits

- Treats indigestion or dyspepsia
- Prohibits excess of excess acid in the stomach
- Helps in curing gastritis and peptic ulcer
- Reduces abdominal pain
- Cures headache and migraine
- Protects from heartburn
- Relieves burning sensation with nausea and vomiting in the abdomen
- Useful motion sickness (nausea or vomiting during travelling)
- Solution for restlessness and insomnia
- Cures dry cough (vata and pitta type of cough)
- Irritable bowel syndrome linked with pitta aggravation
- Helps in treating diarrhoea with burning sensation
- Cures tachycardia (increased heart rate)

Basant Malti Ras^[10]

Tablet contains swarna bhasma, pishti, moti, yasad bhasma, hingul, and marich. These ingredients act as a tonic to boost the overall health and as an alternative to improve vitality and ensure proper body function. Baidyanath Vasant Malti Ras is indicated in phthisis or pulmonary tuberculosis or a similar wasting disease of a progressive nature. It is also beneficial for those suffering from fever, cough, and general weakness.

Kaphaketu Ras^[11]

It is an Ayurvedic medicine containing Shuddha Tankan, Shuddha Vatsanabh, Shankha Bhasma, long pepper, and ginger juice. It is referenced from Rasendra Sarasangraha, Kapha Roga Chikitsa (treatment of diseases caused by vitiated Kapha).

Kapha or Sleshma is phlegm and it is situated in the chest above heart and naval. It is viscid (Snigdha), cold (Seetha), heavy (Guru), slow (Manda), soft (Slakshna), slimy and motionless (Sthira). It is salty in an immature state. Kapha is responsible for the smoothness of the body, general strength, potency, forbearance, steadiness, etc.

Key ingredients

Tankana is composed of boric acid and soda. Its chemical formula is ($\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$).

Shuddha Tankan is prepared by placing small pieces of Tankan on fire and collecting them on dehydrating. On heating the water molecules are evaporated and the final formula becomes $\text{Na}_2\text{B}_4\text{O}_7 \cdot 5\text{H}_2\text{O}$. Ayurvedic properties of Shuddha Tankan are given below:

- Rasa (taste on the tongue): (Pungent)
- Guna (Pharmacological Action): Ushna (Hot), Ruksha (Dry), Sarak
- Virya: Ushna (Heating)
- Vipaka (transformed state after digestion): Katu (Pungent)

Shuddha Tankan is useful in the treatment of a variety of diseases including cough, asthma, respiratory ailments. Suhaga is hot in potency.

Pippali/ Long Pepper/ Dried Catkins, is Kaphahara. It gives relief in cold, phlegm. It reduces Vata and Kapha and increases Pitta. It is hot in potency.

Ginger is hot-pungent-drying in action. It is well-known herb for respiratory ailments. It reduces Vata and Kapha and increases Pitta. It is hot in potency. It works on Digestive and respiratory system.

Vatsanabha consists of dried roots of *Aconitum chasmanthum* Stapf. ex Holmes, Family Ranunculaceae. It is an erect, perennial herb, occurs in subalpine and alpine zones of the western Himalayas.

It has antipyretic, analgesic, anti-rheumatic, appetizer and digestive properties. It is used in Ayurveda only after purification.

It is used in Tridosha vikara, especially in Kapha-Vataj roga such as cough, bronchitis, fever. It has significant therapeutic action in clinical and experimental studies.

Important Therapeutic Uses of Kaphaketu Ras

- Pinasa (Chronic rhinitis/sinusitis)
- Kasa (Cough), chronic cough
- Shvasa (Dyspnoea/Asthma)
- Gala Roga (Diseases of throat), Difficulty in swallowing
- Fever due to phlegm
- Other respiratory disorders
- Discharges from ears, nose, etc.
- Disorders of eyes

- Disorders of nose
- Disorders of throat

Summary^[12]

Positive and powerful results of Ras aushadhi forced us for this study. Rasa aushadhis are more effective than herbal formulations; this is the reason for the selection of Ras aushadhi for the possible treatment plan of COVID-19. Before writing the article, Discussion on the dosha kalpana of this disease was done between authors. Ras aushadhis were also selected according to the effect on doshas. As the possibility, COVID-19 is tridoshaj/sannipataja jwara, so choice of drugs is also done accordingly. People who are asymptomatic and are not even affected are proposed to use herbal drugs to boost the immunity because Ras aushadhis are costly and are used in chronic cases. Exclusion criteria, Precautions are explained in the proposed plan of treatment. The power of Ras aushadi and Ayurveda will surely help to come over from this pandemic; the only requirement is the proper facility of treatment, good quality medicines and planned treatment by the experts of Ayurveda. With the union of all these factors, Ayurveda is surely capable for the treatment of COVID-19. Although emergency and critical cases of COVID-19 surely need the modern medication and treatment, this plan of treatment does not claims for the critical condition of the patient, but it can be very much helpful in the stable patient. While treating the patient with Ras aushadis, the proper Anupana (adjuvant) is a compulsion in the treatment. Anupana must be decided by the Ayurvedic physician according to the medicine. Incorrect Anupana can lead to serious complications in the patient.

Ayurveda has enough potential and possibilities to be employed both for prevention and treatment of COVID-19. This will provide an important opportunity for learning and generating credible evidence.^[13] It is pertinent to reiterate that participation of Ayurveda in addressing the COVID-19 challenge in India should not remain limited and seen as the extension of healthcare services and support to bio-medical system. Indeed, with adequate monitoring and data keeping during the implementation, important lessons and research directions are likely to emerge on the management of increasingly frequent and virulent communicable diseases. Implementation of proposed action is likely to provide evidence-based insights strengthening the scope of Ayurveda beyond preventive health care and care for non-communicable diseases.

CONCLUSION^[14]

AYUSH system across the country has been put on alert for being called anytime to serve the nation. AYUSH healthcare facilities are also being readied to be converted into quarantine facilities in times of need. From this perspective, implementing the suggested intervention plan within AYUSH healthcare facilities by Ayurveda workforce may benefit the nation greatly. India is the country where the world's oldest living health

care system originated and therefore it is being carefully watched by the world community for how it handles the crisis using its own resources. China has done it. And it is India's turn now to show its traditional healthcare might.

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