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PROBABLE ROLE OF *BHAGOTTAR GUTIKA* IN THE MANAGEMENT OF COVID-19: A REVIEW

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ABSTRACT

Introduction: *Rasaushadhis* (Herbal-mineral medicines) are backbone of *Ayurveda* due to its quick action in small dose and long shelf life as compared to herbal medicines. *Ayurvedic* medicines are the need of the hour. The coronavirus pandemic, is an ongoing pandemic of cornavirus disease 2019 caused by severe acute respiratory syndrome coronavirus 2. The disease was first identified in December 2019 in Wuhan, China. The WHO declared the outbreak a Public Health Emergency of International Concern on 30 January 2020 and a pandemic on 11 March 2020. In *Ayurveda* COVID-19 through its sign and symptoms have resemblance with *Vata-Shlaishmika Jwara* described by *Acharya Charaka*. **Aim & Objectives:** To explore the probable role of *Bhagottar Gutika* in the management of COVID-19 & to find out an effective *Ayurvedic* medicine for asymptomatic to mild cases of COVID-19. **Materials and Methods:** For this hypothetical study *Ayurveda Samhitas* like *Charak Samhita, Sushruta Samhita, Bhaishajyaratnavali* etc, authentic publications, internet and modern medical literature have been reviewed. **Observation and Conclusion:** The *Ayurvedic* medicine *Bhagottar Gutika* has *Rasayan*, antiasthmatic, antidiarrheal, antipyretic, antihistaminic, antibacterial, anti-inflammatory and antitoxin properties. So it is concluded that *Bhagottar Gutika* can be used as an effective *Ayurvedic* medicine for asymptomatic to mild cases of COVID-19. Clinical trial of *Bhagottar Gutika* is the scope for new research.

Keywords *Bhagottar Gutika*, COVID-19, *Vata-Shlaishmika Jwara*.

INTRODUCTION: Respiratory disease is responsible for a major burden of morbidity and untimely death.[1] Corona virus disease 2019 (COVID-19) is an infectious disease caused by SARS-CoV-2. It was first identified in December 2019 in Wuhan, Hubei, China and has resulted in an ongoing pandemic. As 19 September 2020, more than 30.5 million cases have been reported across 188 countries and territories with more than 953,000 deaths; more than 20.8 million people have recovered.[2] India has 3.6 million cases of COVID-19, the third most in the world after the USA and Brazil, with 65288 officially confirmed deaths from the disease as of Sep 1, 2020. The Indian Government says that the national recovery rate has reached 77% and the case fatality rate is down to 1.8%.[3] Common symptoms include fever, cough, fatigue, SOB, loss of smell and taste, while most people have mild symptoms, some people develop ARDS possibly precipitated by cytokine storm, multi-organ failure, septic shock and blood clots. The incubation period may range from one to fourteen days. The disease mainly spreads between people when they are in close proximity. It spreads very easily and sustainably, primarily via contaminated droplets produced during breathing, coughing, sneezing and talking etc. The standard method of diagnosis is by rRT-PCR from a nasopharyngeal swab. Chest CT imaging may also be helpful for

diagnosis. There are no proven vaccines or specific treatments for COVID-19 yet, though several are in development. Management involves the treatment of symptoms, supportive care, isolation and experimental measures.[4] In *Ayurveda*, according to *Acharya Charaka* pandemic condition is similar to *Janapadodhwansa*. The word *Janapadodhwansa* made up of two words *Janapda* (large population) and *Udhvamse* (destruction) which means the disease affecting and causing damage of large population.[5] In *Ayurveda* COVID-19 in symptomatology can be correlated with *Vata-Shlaishmika Jwara* (*Ch.Chi*.3/86-87). Feeling of cold, heaviness, drowsiness, feeling of wetness, pain in smaller joints, headache, coryza, cough, lack of perspiration, pyrexia of medium intensity- these are the symptoms of fever caused by *Vata* and *Kapha*[6] which are similar to mild symptoms of COVID-19. In *Ayurvedic* management there is an important role of *Rasaushadhi* (Herbal-mineral formulations) due to lesser therapeutic doses, enhancement of action of other ingredients of formulations, quicker action and palatability.[7] Present research paper is based on to explore the probable role of *Bhagottar Gutika* in the management of asymptomatic to mild cases of COVID-19. *Bhagottar Gutika* described in *Kasa Chikitsa Prakaran* 15/127-129 of *Bhaishajyaratnavali*.

AIM AND OBJECTIVES

1) To explore the probable role of *Bhagottar Gutika* in the management of COVID-19.

2) To find out an effective *Ayurvedic* medicine for asymptomatic to mild cases of COVID-19.

MATERIALS AND METHODS

For this hypothetical study *Ayurveda Samhitas* like *Charak Samhita, Sushruta Samhita, Bhaishajyaratnavali* etc, authentic publications, internet and modern medical literature have been reviewed.

DRUG REVIEW

Classical reference of *Bhagottar Gutika* is mentioned in *Kasa Chikitsa Prakaran* of *Bhaishajyaratnavali*.[8]

Table No.-1: Ingredients of *Bhagottar Gutika*

S. No.	Drug	English/Botanical Name	Quantity	Parts used
1.	*Shuddha Parada*	Purified Mercury	2g	-
2.	*Shuddha Gandhaka*	Purified Sulphur	4g	-
3.	*Pippapli Churna*	*Piper longum*	6g	*Phala* (fruit)
4.	*Haritaki Churna*	*Terminalia Chebula*	8g	*Phala* (fruit)
5.	*Bhibitaki Churna*	*Terminalia Bellirica*	10g	*Phala* (fruit)
6.	*Vasa Churna*	*Adhatoda Vasica*	12g	*Moola* (root)
7.	*Bharangi Churna*	*Clerodendrumserratum*	14g	*Moola* (root)
8.	*Babbula*	*Acacia Arabica*	QS	*Twak* (bark)
9.	*Madhu*	Honey	QS	-

Method of Preparation: Get the materials in the above measures. First of all prepare *Kajjali* out of purified *Parada* and *Gandhaka* and mix rest of the materials into it. Triturate the recipe properly. Take decoction of *Babbula* bark. Process the recipe through the *Bhavana* method along with decoction for 21 consecutive times and finally mortar the same by adding

honey to it. Prepare pills in doses of 1gm each.

INDICATIONS

Cures *Kasa* (bronchitis) and *Shwasa roga* (breathlessness).

METHOD OF ADMINISTRATION

Consume one pill (1gm) with 250 mg of powder of *Pippali* and same quantity of decoction of smaller *Kantakari* (*Solanum Surattense*).

Table No.-2: *Rasapanchaka* of *Bhagottar Gutika*[9]

S.No.	Drug	*Guna*	*Rasa*	*Vipaka*	*Virya*	*Dosha Karma*
1.	*Pippali*	*Laghu,Snigdha,*	*Katu*	*Madhura*	*Anushna*	*Kaphavatashamaka*
		Teekshna			*Sheeta*	
2.	*Haritaki*	*Laghu, Ruksha*	*Panchrasa*	*Madhura*	*Ushna*	*Tridoshahara*
3.	*Bhibitaki*	*Laghu, Ruksha*	*Kashaya*	*Madhura*	*Ushna*	*Tridoshahara*
4.	*Vasa*	*Laghu, Ruksha*	*Tikta,Kashaya*	*Katu*	*Sheeta*	*Kaphapittashamaka*
5.	*Bharangi*	*Laghu, Ruksha*	*Tikta, Katu*	*Katu*	*Ushna*	*Kaphavatashamaka*
6.	*Babbula*	*Guru, Ruksha*	*Kashaya*	*Katu*	*Sheeta*	*Kaphavatashamaka*

DISCUSSION: The clinical presentation of COVID-19 shows resemblance with *Vata-Shlaishmika Jwara*. To counteract COVID-19 mild symptoms, *Bhagottar Gutika* has specific role through its pharmacological properties and also have been recommended in *Kasa* (bronchitis) and *Shwasa* (breathlessness) *Roga* etc. According to *Rasatarangani*, *Kajjali* is *Sagandha-Niragani* and *Khalvi Rasayana*. It is *Yogavahi* (which carries the properties of that substance with which it is associated in the combination) in nature, when administered with suitable vehicle helps to cure diseases. In respiratory disorders *Dviguna Kajjali* triturated along with *Pippali, Haritaki, Vasa* etc. *Acharya Charaka* described *Pippali* as a *Rasyana* (rejuvenate) in *Chikitsathana*[10], it is *Kaphavatashamaka*. *P.longum* contains *piperine* as the major and active constituent about 3-5%. It has antioxidant and antipyretic properties.[11] *Acharya Charaka* also described *Haritaki*[12] and *Bhibitaki*[13] as a *Rasayana* in *Chikitsathana* and indicated in various *Kaphavata* dominant diseases. *T.chebula* fruit is rich in tannic acid and also have fructose, amino acid, succinic acid, resin and purgative principle of anthroquinone and sennoside nature is present. It has homeostatic, antitussive, laxative and cardiotonic activities, so it can use in chronic cough, sore throat, dyspepsia and constipation.[14] *Bhibitaki* is a *Tridoshahara* but mainly pacification of *Kapha Dosha*. It has important phytoconstituents like bellericanin, ellagic acid, chebulaginic acid, flavon, phenyllembin and a-sitosterol. It has pharmacological attributes such as antioxidant, antibacterial, anti-inflammatory and hepatoprotective potential.[15] *Acharya Sushruta* described *Vasa* as an astringent taste, *Katu Vipaki* and indicated in *Kshaya* and *Kasa Roga*.[16] The prominent alkaloids of *Adhatoda Vasica* is vasicine and extensively used for treating such as common cold, chronic bronchitis and asthma. It is good remedy for sore throat and improves symptoms of dyspepsia.[17] According to *Acharya Bhavamishra*, *Bharangi* is a drug of choice to cure various ailments especially *Shwasa* (breathlessness), *Kasa* (cough), *Vrana* (wound), *Shotha* (swelling) and many *Vataja* disorders (neurological disorders) etc. The chemical constituents such as saponin, catchin, olionalic acid, carbohydrate, flavonoids, phenolics, steroids, terpenes etc were reported in

Clerodendrum serratum. Various experiments proved its antiasthmatic, bronchodilator, antiallergic and anti inflammatory property.[18] In *Bhavaprakasha Samhita, Babula* described as *Kaphahara* (expectorant), *Grahi* (antidiarrheal), *Kushta-Krimi-Vishapaha* (antihelminthic-antimicrobial-antitoxin) drug. Stem bark of *Acacia Arabica* is a powerful astringent and used in diarrhea, dysentery and as an antiasthmatic.[19, 20, 21] The all these above powerful ingredients in combination can give excellent result to control asymptomatic to mild cases of COVID-19.

CONCLUSION

Mild symptoms of COVID-19 are ARTI (fever, fatigue, myalgia, cough, sore throat, runny nose, sneezing) or digestive symptoms (nausea, vomiting, abdominal pain, diarrhea). These all conditions can counteract by proper administration of *Bhagottar Gutika*. The *Ayurvedic* medicine *Bhagottar Gutika* has *Rasayan*, antiasthmatic, antidiarrheal, antipyretic, antihistaminic, antibacterial, anti-inflammatory and antitoxin properties. So it is concluded that *Bhagottar Gutika* can be used as an effective *Ayurvedic* medicine for asymptomatic to mild cases of COVID-19. This paper is based on classical and modern review of *Bhagottar Gutika*, there is need of clinical trial of this drug on large number of sample size, which is scope for further research.

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ABBREVIATIONS

ARDS: Acute Respiratory Distress Syndrome
ARTI: Acute Respiratory Tract Infection
B.R.: Bhaishajya Ratnavali
CT: Computed Tomography
rRT-PCR: Real Time Reverse Transcription Polymerase Chain Reaction
SARS: Severe Acute Respiratory Syndrome
SOB: Shortness of Breathing

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