Role of Chyavanprash as a Rasayana in combating an outbreak of COVID 19

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ABSTRACT

Today the whole world is suffering from the most dreadful disease that is Covid 19. The Causative factor for COVID 19 is SARS-COV2. It was first noticed in Wuhan city of China. World Health Organisation declared the fatality of this disease as a pandemic. This disease has become a problem of great concern globally. This virus targets the respiratory system of human beings. There is a high incidence of person to person transmission of this disease through contact. However, there is also a significant role in innate immunity in pathogenesis and management of this disease. The whole world is seeking for flawless control of this viral disease. Ayurveda is a holistic science. Its aim is not only on the cure of diseases but also on its prevention. It emphasises mainly on healthy life of an individual. There is a wide range of principles described in Ayurveda which are used to combat disease from its root. Rasayana Chikista is a useful principle of Ayurveda, beneficial for management and prevention of many diseases. It is always said that “prevention is better than cure”. Chyavanprash is one of the well known Rasayana. Contents of Chyavanprash shows a wide range of actions on respiratory diseases as well as on boosting immunity. These properties of it provoke us to review the role of Chyavanprash in the prevention of Covid 19, thereby increasing one’s immune response. This Chyavanaprash can be a boon in the prevention of Covid 19 by improving immunity against it.

INTRODUCTION

Covid 19 is declared as a pandemic disease in a global context WHO states it as a worldwide health concern. These coronaviruses are non-segmented, single-stranded RNA virus genomes. (Li et al., 2020) These have club shape spike-like projection originating from the surface, which is the feature of the virion, and because of that spikes, solar Corona like appearance is seen in them. Hence the name Corona is given. (Anthony R and Perlman, 2015) Most common symptoms of Covid 19 are cough, fever, and fatigue. It also shows symptoms like dyspnoea, headache, sputum production, diarrhoea, lymphopenia and haemoptysis. The incubation period of this disease is generally 5.2 days, that means symptoms appear after 5-7 days. Morbidity due to symptoms differs from person to person. It mainly depends on factors such as age, history of other diseases such as hypertension, diabetes mellitus and mostly on the immunity of a person. This virus causes more severe infection in elderly persons, neonates, persons with underlying illness, and persons having more incidence of lower respiratory tract infection. All these types of people are con-
considered as Hinabala Vyakti as per Ayurveda. That means fatality is as per “Rogi Bala”. Those having less Bala are having more chances to get infected with this virus. (Ismail et al., 2017) So, enhancing Rogi Bala and prevention of further course of the disease is the vital step in the management of it. Recent researches show that patients of this disease are presenting with higher leukocyte count; that is, there is a rise in pro-inflammatory cytokines in plasma. (Rothen and Byrareddy, 2020) This study shows the involvement of the host immune system in the infection of Covid 19. These viruses are mainly spread by contact. Till date, there is no therapeutic elixir treatment found to fight against Covid 19. Also, there is is no vaccine available, yet. Only preventive measures such as washing hands with soap and rubbing with a sanitiser, covering mouth and nose with a flexed elbow while sneezing and coughing, maintaining social distancing of 1-3 meters with unwell and suspected people are being followed. Also, the intake of Vitamin C is advised. Isolation and staying at home is a significant remedy suggested by the governments throughout the world. Prime Minister Narendra Modi has advised the physician’s of Ayush to take up the challenge and come forth to fight against these frightful viruses by using principles of the study of their diseases. This integrative approach will help to turn upside down the Covid 19. Ayurveda is all-inclusive science which mainly emphasise on prevention of disease, maintaining good health along with the cure of diseases from their root. Rasayana is one of the significant elements in Ayurvedic Chikista. (Chulet and Pradhan, 2009) Rasayana is etymologically derived from the words “Rasa” and “Ayana”. Rasa is the first Dhatu forming in our body from the food that we ingest. Dhatu is the primitive matter present in the menu. Ayana means mode by which this Rasa of the Dhatu transforms further into other Dhatus. (Tripathi et al., 2015; M.O.M.I.N. and Ali, M., 1998) The other Dhatus are formed step-by-step. This Rasa Dhatu can be correlated with plasma tissue as per modern science. It rejuvenates the body, reinstates youthfulness, enhances the mental and physical strength and improves ones’ immunity, helps in relieving stress and tension of life. As per Dalhana (anomedical commentator of Sushruta Samhita), it is the therapy which deals with good health and longevity. (Kumar et al., 2014) It also boosts the immune response of the human being. (Gautam and Debnath, 2001; Shailesh and Vaihali, 2018) There are different types of Rasayana described in Ayurveda. One of them is Chyavanprash. It is a blend of nearly about 50 herbal drugs. These drugs show various activities against alleviated Doshas in the body during Samprapti of disease. It is mainly prepared in Aamlaki base which shows sarvdoshghna property that means it is helpful in the homeostasis of the body by maintaining all the Doshas (the four senses of humour of European history - blood, phlegm, yellow bile (choler), and black bile) in proper condition and helps in rejuvenating the body. (Kumar et al., 2017) It is Pancharasatamaka as per Ayurveda, that means, it is almost a mixture of sweet, sour, bitter, astringent and pungent tastes. As its main base is Aamla, it is rich in Vitamin C, which affects curatively in respiratory diseases. Thus this Rasayana therapy, particularly Chyavanprash, can be proven as adjuvant therapy in the management of Covid 19. It will help to keep away these viruses by boosting ones’ immune response.

DISCUSSION

Covid 19 is one of the dreadful diseases which primarily attacks the respiratory system of the host. The symptoms of it range from simple cough to severe respiratory distress. It also affects the overall immunity of the patient. These viruses show a replication strategy, which is unique to them. Along with the respiratory system, it also invades the immune system of the host. CD4+ T cells, T cells, and CD8+ T cells have a unique antiviral role by harmonising combat against pathogens showing the position of immunity in infections of Covid 19. (AnthonyR and Perlman, 2015) Rasayana Chikista among the eight elements of Chikista of Ayurveda can be very much in effect against Covid 19. Chyavanprash is one of the imperative compounds of this Rasayana Padhathi. It is a blend of around 50 natural products. The dose of Chyavanprash is given as 10 gm thrice a daily for about 28 days in Indian Pharmacopia. (Debnath et al., 2012) Its Anupama is Godugdh. Chyavanprash is prepared using the classical method and can be nectar in the prevention and cure of these viruses. A significant component of Chyavanprash is Amalaki which is a well-known most abundant source of vitamin C. It also consists of polyphenolics and flavonoids. This vitamin C acts like an antioxidant which aids in preventing lung damages due to cytokinin induction by viruses and prevents further pathology of the disease. (Sharma et al., 2019) Concerning Ayurveda, individual actions of ingredients in Chyavanprash at micro as well as macronutrient level, tissue nourishment level, metabolic level are well established (Gautam and Debnath, 2001)

The following are the Dravyas of Chyavanprash show several actions on the respiratory system.

Guna - Laghu, Ruksha, Rasa – Tikta, Kashaya, Vipaka - Katu, Virya - Sheet

Important constituents - Vasicine, adhatodine acid

Necessary actions - Bronchodilator, anti-allergic, expectorant, chologogue


Guna - Laghu, Ruksha, Tikshna, Rasa – Katu, Tikta, Vipaka - Katu, Virya - Ushana

Important constituents - Jjinkohol, 10-epi-eudesmol, Kusunol, vanillic acid,

Important actions - Anti-inflammatory, anti-asthmatic, analgesic.

3. Punarnawa (*Boerhaviadiffusa Linn.*) (Bhowmik *et al.*, 2012)

Guna - Guru Snigdha, Rasa – Madhur, Tikta, Vipaka - Madhur, Virya - Ushana

Important constituents - Rotenoids, Flavonoids, glycosides, triterpenoids alkaloids, steroids

Important actions - Antioxidant, antipyretic, anti-aging, anti-inflammatory

4. Shalparni (*Desmodiumgangetium DC.*) (Suman *et al.*, 2015)

Guna – Guru, Ruksha, Rasa – Panchrasatmaka (Amlapradhana), Vipaka - Madhur, Virya - Sheet

Important constituents - Gangetinin, Gangetin-3H desmodin, Ndimenthyltryltryptamine, hordenine, caudicine,

Important actions - It acts on fatigue, General debility, respiratory disorders

5. Aamalaki (*Emblica Officinalis Gaertn.*) (Bhat *et al.*, 2019)

Guna – Guru, Ruksha, Rasa – Panchrasatmaka (Amlapradhana), Vipaka - Madhur, Virya – Sheet

Important constituents - Gallic acid, chebulinic acid, chebulagic acid, quercetin, corilagin, 1-O-galloyl-beta-D-glucose, 3,6-di-O-galloyl- D-glucose, 3-Ethylgallic acid, ellagic acid, 1,6-di-O-galloyl beta-D-glucose, isostrictinii

Important actions – It shows immune-modulatory, rejuvenating actions, promotes longevity antioxidant, improves general vitality and cognition


Guna – Laghu, Tikshna, Rasa – Tikta, Katu, Vipaka - Katu, Virya – Ushna

Important constituents - Elemanolide, sesquicarano-lide, Eudesmanolide, guainolide, heptadeca-1, 8, 11, 14-tetraene-germacranolide, humulane,

Important actions – Bronchodilator, Antihistaminic, cures cough, asthma, cold, (p.296)

7. Pippali (Piper longum Linn.) (Ashalatha *et al.*, 2015)

Guna – Laghu, Snighsha Tikshna, Rasa – Katu, Vipaka - Katu, Virya – Amushnashita

Important constituents - Cinnamic acids and its derivatives, Carboxylic acids with its derivatives, naphthalenes, phenol ethers, isoflavonoids, oxanes, phenanthrenes and its derivatives, pteridines and its derivatives, pyridines and its derivatives and steroid

Important actions - Antitussive, a bronchodilator, stimulant, tonic, bioavailability enhancer, carminative, relieves respiratory infections

8. Kakdasingi (*Pistaciaintegerrima Stewart-ex Brandis*) (Shirole *et al.*, 2014)

Guna – Laghu, Ruksha, Rasa – Kashaya, Tikta, Vipaka - Katu, Virya – Ushna

Important constituents - Pistiphloroglucinyl ether, Pistaciaphenyl ester and Pistiphloro-glucinyl ester

Important actions: Bronchodilator, antitussive, expectorant, chologogue, used in Chronic bronchitis, Asthma, fever


Guna – Laghu, Ruksha, Tikshna, Rasa –Tikta, Katu-Vipaka - Katu, Virya – Ushna

Important constituents - ergosterol, Lupeol, β-sitosterol, campesterol, oleanolic acid, ursolic acid, withanolide B

Important actions - Expectorant , Mucolytic, bronchodilator, anti-allergic, and relieves flu.


Guna – Guru, Snigdha, Rasa – Tikta, Kashaya, Vipaka - Madhur, Virya – Ushna

Important constituents - Tinosporin, inosporine, tinosporaside, tinosporide, cordifolide, tinosporidine, cordifol, diterpenoid Furano lactone, columbin, clerodane Furano diterpene Berberine, palmatine, tembertarine, magnilflorine, choline and heptacosanol, b-sitosterol,

Important actions - General tonic, immunomodulator, cytoprotective, genoprotective, adaptogenic

11. Shatavari (*Asparagus racemosus Wild*) - (Joshi, 2016)

Guna – Guru, Snigdha, Rasa – Madhur, Tikta, Vipaka - Madhur, Virya – Sheet

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Vyadhi beneficial in treating quoted in Phalshruti that adjuvant use of tuberculosis which were newly diagnosed put forth study carried out on 99 patients of pulmonary metabolism. (physiological functions routing toward an upgraded tissues. It builds a corresponding interaction within tion of the toxins from visceral organs and distant tissues. (some spicy herbal drugs which aid in improving the and Pitta. It’s one of the acute symptoms, is fever. Most of the Dravyas of Chyavanprash is of TiktaRasatmaka. This rasa is said as Jwarghna by Acharya Charaka. (Akhtar et al., 2010) Also, it is Laghu, Ruksah, Gunatmaka as per Acharya Sushruta which pacifies vitiated Kapha Dosha. (Kumari et al., 2013) That means Chyavanprasha devastates vitated Kapha Dosha and will help fight against Covid 19. As said earlier, in Covid 19, also respiratory and immune systems of victims are generally involved. By considering all these facts, Chyavanprash can have a crucial role in the management and treatment of Covid 19 as an adjuvant compound to increase Bala of the healthy patient as well of the diseased one.

CONCLUSION

Rasayana Chikista is beneficial for prevention and cure of any disease. Chyavanprash as a part and partial of this Chikista have also potential to combat various diseases. It is made of huge range of useful natural products which are of great medicinal value showing effect on respiratory and immune system which are primarily affected in Covid 19 infection. It is well known compound to people in the society. Chyavanprash is very much cost effective and its ingredients are also easily available to prepare it. Also due to its sweet and sour test it is easy to consume. Many researches have been carried out to show its potential and action. Along with general preventive measures, if this is consume with proper dose and duration with Anupanaas Godugdhit can prevent the person from Covid 19 and it should also be taken by person which are just suspected for the disease. In this way, we can fight pandemic Covid 19 by integrated approach by using Chyavanprash as Rasayana. And this disease can be controlled world wide. Thus, an effort is made to compile the information from Ayurvedic texts and treatises, along with ethnopharmacological, ethnobotanical and scientifically proven researches, that focuses the role of Chyavanprash in combating Covid 19.

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