



A STUDY OF TRADITIONAL IMMUNE BOOSTING DRINK KADHA ON COVID 19 PATIENTS, AT DEDICATED HOSPITAL OF TERTIARY CARE CENTER OF NORTH INDIA.

Medical Science

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ABSTRACT

Object- Novel corona virus induced COVID-19 pandemic affecting both developed and developing countries. No effective evidence based pharmacotherapy has been known. But body immunity play very significant role to fight against deadly disease. In India, numbers of approaches are in practice to boost the body immunity including yoga, exercise, meditation and balanced diet. Kadha - a liquid decoction of different herbs and spices have been under the trials in various centers of India.

Materials & Methods- Aim and objective were to evaluate the effects of kadha in COVID -19 patients. The place of study was quarantine center and dedicated Covid hospital of Rama Medical College, Kanpur. Duration of study was two months. Freshly prepared Kadha was provided to all patients as per dietary schedule and observe their outcome.

Results- On the average, total 200 patients were considered to which kadha were given along with other medical measures, as per guidelines. The acceptance rate and compliance was cent percent. There was no issue of palatability and taste. Patients were feeling better and energetic along with early recovery from symptoms. We had not been reported any adverse outcome of kadha among users.

Conclusion- Diet rich in green vegetables, spices and fruits provide adequate antioxidants and essential phytochemicals. In our study kadha and golden milk, as a part of Indian traditional medicine have show safe and positive outcome.

KEYWORDS

Antioxidants, Phytochemicals, Traditional Medicine, Decoction, Meditation, Yoga.

INTRODUCTION

Traditional systems of medicine have been always played an imperative role in healthcare system. Indian traditional medicinal system includes well acknowledge scientifically proved system of Ayurveda, siddha, Yoga and naturopathy. Ayurveda is the most ancient scientific system of medicine originated from India. Therapies are typically based on complex herbal compounds and minerals which keep body healthy and fit.¹

In context to medical wellbeing, antioxidants and phytochemicals are important. An antioxidant is a compound that prevents another molecule to becoming oxidized because when the molecules in the body become oxidized free radical can be formed. Being unstable in nature free radicals are very dangerous and can results damage within the body. Antioxidants such as vitamins neutralizing the free radicals and prevent damage. They are also called as free radical scavengers.² Phytochemicals (phytonutrients) are naturally occurring plant products that have protective qualities for human health. Phytochemicals are found in fruits, vegetables herbs, spices and seeds etc.³ A spice is a seed, fruit, root, bark or other plant substance primarily used for flavoring, coloring and preserving food. Spices are different from an herb which includes leaves, flowers or stems.⁴ An herb is a plant or plant parts used for its scent, flavor or therapeutic properties.⁵

Novel corona virus induced COVID-19 is a pandemic affecting both developed and developing countries. No effective evidence based pharmacotherapy has been known till date. Immunity plays a significant role in fight against deadly disease Body immunity varies from person to person. In India, numbers of approaches are in practice to boost the body immunity including, yoga, exercise, meditation and balanced diet. Diet rich in green vegetables, spices and fruits provides adequate antioxidants and essential phytochemicals. Liquid decoctions of different herbs and spices have been under the trials in various centers of India. Even AYUSH Ministry issued an advisory and recommended the use of liquid decoction popularly called as Kadha and golden milk to boost the immunity.⁶ Considering the importance of kadha we planned to conduct a study at quarantine center and dedicated COVID hospital of Rama Medical College, Kanpur to evaluate the impact of kadha and accompanied efforts on outcome.

MATERIALS & METHODS

Aim and objective of study was to evaluate the effects of kadha on COVID -19 patients. The place of study was quarantine center and dedicated Covid hospital of Rama Medical College, a tertiary care

center, Kanpur. Prior permission from Institutional Ethical Committee was taken. Total duration of study was two months -one month (april) for quarantine and other one month (may) for COVID -19 patients.

The material was liquid kadha prepared by experts of Ayurvedic College, Rama University, Kanpur. Kadha is nothing but liquid decoction of various spices and herbs. Ingredients of kadha are shown in table -

Table 1 Ingredients of Kadha.(Liquid decoction)

Amla, (Indian gooseberry)
Ashawagandha (winter cherry)
Ajwain (carom seeds)
Geloi (guduchi)
Pipale . (long pepper)
Daal cheni(cinnamon)
Kali Mirch (black pepper)
Laung (clove)
Munnka (rasins)
Sonth (dry ginger)
Haldi (turmeric)
Tulsi (holy basil)
Elaichi (cardamom)
Tej Patta(Indian bay leaf)
Gur (Jaggary)
Sendha Namak (rocksalt)

Sufficient amount of all the ingredients was boiled in water then filter and serve lukewarm. honey or lemon can be added, as per taste. Freshly prepared kadha, 100 ml twice were provided to all the patients as per routine diet menu. Children below 5 years were excluded. Apart from kadha, frequent lukewarm water and lime water on demand was provided. Lukewarm golden milk (milk plus turmeric) in quantity of 100 ml was also provided to all at the night. There vitals and presenting complaints were recorded daily. We take their feedback regarding to our effort on kadha and golden milk etc before discharge.

RESULTS

Kadha was advised to 200 patients in addition to recommended medical measures as per guidelines. Out of 200 patients 50 were admitted for quarantine and rest 150 were COVID positive patients. Children below 5 years were not considered due to issue of inability to drink adequate amount of kadha. Among 50 quarantine patients 38 were males and rest were females. Out of 150 positive patients 105

were males and 45 were females. Maximum numbers of patients were in age group 20 to 50 years. Being as a part of treatment, all patients drink 100 ml kadha twice a day with 100 ml golden milk at night. All accepted the kadha without hesitation thus no one refused. The compliance was cent percent. There was no complaint of palatability and taste. Therefore acceptance rate was quite high. Although majority of patients were asymptomatic, however complaints like fever, dry cough, body aches were subsided within 2-5 days in rest. There vitals was recorded as average. Even patients with co-morbid diseases experienced better. We had not been reported any adverse outcome of kadha in context to nausea, vomiting and abdominal upset etc. Regarding to their feedback, maximum were appreciated the use of kadha and golden milk as immunity boosting agents while someone was interested about recipe of Kadha.

DISCUSSION

Use of herbs and spices for the treatment of common ailments is not a new entity. This concept is utilized since inception of civilization. Every culture has been used various components of nature's derived products since long. Now it becomes a part of human culture and being a tradition which have been transmitted from generation to generation. A better termed can be used for such remedies is traditional medicine. Indian traditional medicinal system is one of the oldest medicinal systems of the world.

Ayurveda, siddha, unani, homeopathy, naturopathy and yoga are well acknowledged traditional system⁷. Ayurveda is a scientific system of medicine originated from India. The word Ayurveda is a Sanskrit word meaning "knowledge of life and longevity". Therapies are typically based on complex herbal compound and minerals which keep body healthy and fit. Yoga, the another ancient system of exercise which prepare body to fight against disease. Combined approaches of all well scientifically proven Ayurveda, yoga and meditation are foundation of good health. Ayurveda laid great emphasis on diet regulation because food is the basic material of life supporting vital matter 'rasa'. The rasa is converted to body components and supports all the body activities.⁸

Immunity is self defense mechanism of body which protect individual from harmful effects of foreign substances e.g microorganism and allergens, thus immunity protect the body from disease.⁹ Decoction is the method of extraction by boiling herbal or plant materials. Kadha is an Ayurvedic drink including herbs and spices which are typically boiled in water for length of time and then extracted their health benefits.¹⁰ Ministry of AYUSH, Government of India, recommended immunity boosting measures for self care during COVID-19 crises. The recommended immunity promoting measures are – drink green tea and decoction (kadha) made from tulsi, dalcini, kaimirch, sunthi, munakka and gur. Use of Chawyanprash and hot milk mixed with haldi. We were used the recommendation of AYUSH Ministry, GOI for the preparation and use of kadha and other measures. Some additional immunity booster ingredients were also added to made kadha. Addition of lemon and honey was optional as per taste.

Now briefly described the medicinal value of ingredients used in kadha. Amla (Indian gooseberry) is the most widely used herb in Ayurvedic system of medicine. Amla is the basic constituent of Chawyanprash and add benefits in diabetes, asthma, skin and digestive problems.¹¹ Ashwagandha (winter cherry, Indian ginseng) improve stamina and possess the properties of anti-inflammatory and antibacterial.¹² Ajwain (carom seeds) has anti-infective properties which treat common cold and cough.¹³ Giloy (guduchi) treat chronic fever and enhances the immunity. Giloy has abilities to reduce asthmatic symptoms and fight respiratory problems.¹⁴ Pipali (long pepper/jaborandi) is used for respiratory problems including asthma, cough and bronchitis.¹⁵ Laung (clove) are the aromatic flower buds rich in antioxidant.¹⁶ Dalcheni (cinnamon) is best antioxidant after clove. It barks is used to suppress cough and cold apart from anti-infective and anti-diabetic potential.¹⁷ Sonth (dry ginger) a fine off-white powder has a strong aroma and pungent flavor with anti-inflammatory properties. It is used for common cold and abdominal upset.¹⁸ Elaichi (cardamom) is the most expensive spices next to saffron rich in antioxidant. It is used to treat cough and stomach upset.¹⁹ Tejapatta (Indian bay leaf) leaves have a clove like aroma with peppery taste. Tejapatta bears carminative, immune-stimulant, antioxidant and anti-inflammatory properties.²⁰ Haldi (turmeric) is deep orange yellow powder commonly used for coloring and flavoring agent. It is very good anti-inflammatory and anti-infective agent. Haldi

dhooth (golden milk) is common household remedy for number of medical problems.²¹ Tulsi (holy basil) is cultivated for religious and traditional medicine purpose. Tulsi has a very sacred place in Hinduism in which devotees perform worship around holy plant. Tulsi has antibiotic, antiviral, antibacterial potential. It also acts as detoxifying, cleansing and purifying agents.²² Munakka (raisins) are seeded variety of dried grapes. These tiny wonders are loaded with essential nutrients and antioxidants primarily used in deriving Ayurvedic medicinal concoctions.²³ Gur (jiggery) is a traditional non centrifugal cane sugar loaded with minerals and antioxidants.²⁴ Sendha namak (rock salt) obtain from salt mine, rich in minerals. Rock salt is used for dry cough, throat pain and tonsillitis.²⁵ Addition of neem in kadha will definitively serve extra advantage. But we have not used neem due to taste issue. We are advocated the use of neem on individual basis. Addition of lime or honey impart the taste and have own medicinal value.

COVID-19 is a viral disease but no specific antiviral have been effective yet. We can prevent the spread of virus from carriers via physical distancing (at least one meter) avoidance of hand shaking and by frequent hand wash. Stay home and self isolate even with minor symptoms.²⁶ Overall body self defense power play a very significant role and this is only hope against the deadly disease. Use of diet rich in antioxidants and photochemicals accompanied with Yoga, meditation and exercises provide positive impact on body resistance.²⁷

In our study we were provide kadha and golden milk to all patients, in addition to recommendation as per guidelines on clinical management of COVID-19.²⁸ Majority of patients were males probably due to more exposed in community. In most of the countries equal number of male and females were affected but in India percentage of males were comparatively more than females.²⁹ Similarly maximum patients were in age group of 20 to 50 years with peak around 30 to 40 years.³⁰ Both the observation on sex and age are close to Indian figure. Not a single patient was refused to take kadha. Thus the compliance was cent percent. There was no complaint of palatability and taste. Therefore acceptance rate was quite high. We had not been reported any adverse outcome of kadha with respect to nausea, vomiting and abdominal upset etc. It means use of kadha is safe. On the other hand the symptoms subsided earlier while patients with co morbid condition felt better probably due to enhancement of body self defense. It means kadha definitively worked and was not considered just as placebo. Maximum were appreciated the use of kadha and golden milk as for as their feedback is concerned while someone interested about recipe of Kadha.

Being as part of traditional medicine kadha and golden milk provides additional health benefits. Shortcoming of our study is qualitative assessment and there is no placebo control arm for comparison. But this is not possible because of nature of disease. Overall health and safeties of patients have been the prime concern.

CONCLUSION

COVID-19 is novel corona virus induced pandemic affecting almost all the developed and developing countries. There is no effective evidence based medical therapy available till date. In spite of global researches no vaccine has been developed. Only preventive strategies are only option to reduce the virus spread. Body defense system play an important role in combat the disease when no options available. In our study the kadha and golden milk, as a part of Indian traditional medicine have show positive outcome. As there is no harm, thereby recommended the use of kadha in this pandemic as an immunity booster.

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