

A PROJECT ON
EFFECT OF HOME INGREDIENTS IN THE TREATMENT OF
COVID - 19



**A project report submitted in partial fulfillment of the requirement
of botany course of Palamuru University
During the year 2021-2022**

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CERTIFICATE

This is to certify that the present work titled "**A Study Of Effect Of House Hold Ingredients Used To Treatment Of Corona**" is the bonafide work of **R. Ramya, B. Sravya, J. Saritha, A. Radha, M. Shivani** under my supervisor. No part of this work has been submitted to any other University for the award of any Degree.

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29/6/22



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DECLARATION

We hereby declare that the investigation results incorporated in the present project titled_“**A Study Of Effect Of House Hold Ingredients Used To Treatment Of Corona**” were originally carried out by us under the supervisor of **Dr. P.Srinivasulu** ,Department of botany, “**Dr. BRR Government Collage Jadcharla, Mahabubnagar Dist, Telangana**”. No part of this work has been submitted to any other university for the award of Degree.

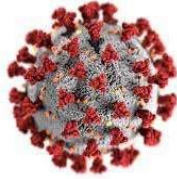
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CHAPTER-I
INTRODUCTION



The current Pandemic of COVID-19 that is spreading across countries originated in Wuhan, China. The single cause of this highly communicable disease is a novel corona virus, called severe acute respiratory syndrome -me coronavirus 2 (SARS- COV-2), which is the seventh Known virus of the coronaviridae family capable of infecting humans. The latest report from the world Health organization cited that there are now over 19 million confirmed cases and over 700,000 deaths worldwide caused by this virus. The United States of America now has the highest number of COVID-19. cases (over 4 million cases), followed by Brazil (almost 3 million cases) and India (over a million cases). The fast Propagation of this disease is mainly through close Contact with infected individuals via respiratory droplets from either sneezing coughing. Furthermore, there are two other ways of transmitting the virus, including contact and aerosol transmission.

Among infected patients; COVID-19 Show's various unspecific symptoms, ranging from mild to severe. A report from Huang et al mentioned that fever (98%) Is the most frequent manifestation that is reported by Patients, followed by cough (76%), myalgia or fatigue (44%) sputum production (28%), and headache (8%). Also some fatal cases have been reported in certain patients experiencing progressive respiratory failure due to the virus activity that attacks the alveolar epithelial cells. This damage is initiated is initiated by the receptor- binding domain (RBD) attachment of the virus to the receptor on the respiratory tract, known as the angiotensin-converting enzyme-2 (ACE) receptor. Humans have many ACE2 receptors in their respiratory tracts, which increase their susceptibility to COVID-19. This molecular mechanism may Partly explain why the Incidence rate of this disease is increasing rapidly. Afterwards, viruses infecting humans can lead to subsequent inflammatory Processes and the release of numerous Proinflammatory cytokines that are responsible for the clinical appearance of inflammation some of thus Proinflammatory cytokines, including IL-2, IL-7, IL-10, G-CSF, Ip-10, MCP-1, MIP-1 a, and TNF- α are highly elevated. in the blood of severely

ill COVID-19. patients. Thus, there may be an association between this elevated level of cytokines and the severity of a Patient's manifestation.

CHAPTER -II
REVIEWS OF LITERATURE

Herbal Medicine for the Treatment of Coronavirus Disease 2019 (COVID-19): A Systematic Review and Meta-Analysis of Randomized Controlled Trials

Abstract

Background: The coronavirus disease 2019 (COVID-19) pandemic has caused a worldwide outbreak of respiratory illness. This review aims to evaluate the effectiveness and adverse events of herbal medicines for the treatment of COVID-19. **Methods:** Twelve databases were searched through 12 May 2020. Randomized controlled trials (RCTs) and quasi-RCTs assessing the effects of herbal medicines for the treatment of COVID-19 were eligible. The study selection and data extraction were performed by two independent reviewers. The Cochrane risk of bias tool was used for the assessment of the risk of bias in all included RCTs. Mean differences (MDs), risk ratios (RRs) and odds ratios (ORs) with 95% confidence intervals (CIs) were calculated, and the effect sizes of the studies were pooled. **Results:** Seven RCTs with a total of 855 patients were included. All included trials compared the combined therapy of herbal medicine with Western medicine to Western medicine alone. The combined therapy significantly improved the total effective rate (RR 1.23, 95% CI 1.13 to 1.34, $p < 0.001$), cough symptom disappearance rate (RR 1.45, 95% CI 1.12 to 1.89, $p = 0.005$), and sputum production symptom disappearance rate (RR 1.73, 95% CI 1.19 to 2.50, $p = 0.004$). Beneficial effects of the combined therapy were also seen in TCM syndrome score of cough (MD -1.18, 95% CI -1.34 to -1.03, $p < 0.001$), fever (MD -0.62, 95% CI -0.79 to -0.45, $p < 0.001$), dry and sore throat (MD -0.83, 95% CI -1.45 to -0.20, $p = 0.009$), and fatigue (MD -0.60, 95% CI -1.04 to -0.17, $p = 0.007$). The overall risk of bias of the included studies was unclear. No serious adverse events were reported. **Conclusion:** Significant effects of the combined therapy of herbal medicine with Western medicine were found, and revealed the potential role of herbal medicine in treating COVID-19. More high-quality RCTs are needed to further validate the effectiveness and adverse events of herbal medicine in the treatment of COVID-19.

A severe acute respiratory syndrome is an unusual type of contagious pneumonia that is caused by SARS coronavirus. At present, the whole world is trying to combat this

coronavirus disease and scientific communities are putting rigorous efforts to develop vaccines. However, there are only a few specific medical treatments for SARS-CoV-2. Apart from other public health measures taken to prevent this virus, we can boost our immunity with natural products. In this article, we have highlighted the potential of common spices and herbs as antiviral agents and immunity boosters. A questionnaire-based online survey has been conducted on home remedies during COVID-19 among a wide range of peoples (n=531) of different age groups (13–68 years) from various countries. According to the survey, 71.8% of people are taking kadha for combating infection and boosting immunity. Most people (86.1%) think that there is no side effect of kadha while 13.9% think vice versa. A total of 93.6% of people think that spices are helpful in curing coronavirus or other viral infection as well as boosting immunity. Most people are using tulsi drops, vitamin C, and chyawanprash for boosting their immunity. Therefore, we conclude from the survey and available literature that spices and herbs play a significant role against viral infections.

Home-Based Remedies to Prevent COVID-19-Associated Risk of Infection, Admission, Severe Disease, and Death: A Nested Case-Control Study

Abstract

This study aimed at determining the various types of home-based remedies, mode of administration, prevalence of use, and their relevance in reducing the risk of infection, hospital admission, severe disease, and death.



The study design is an open cohort of all participants who presented for testing for COVID-19 at the Infectious Disease Treatment Centre (Tamale) and were followed up for a period of six weeks. A nested case-control study was designed. Numerical data were analysed using STATA version 14, and qualitative data were thematically analysed.

Almost a third of persons presenting for COVID-19 test were involved in some form of home-based remedy to prevent COVID-19. Steam inhalation and herbal baths increased risk of COVID-19 infection, while physical exercise and dietary changes were protective against COVID-19 infection and hospital admission. Future protocols might consider inclusion of physical activity and dietary changes based on demonstrated health gains.

Traditional Herbal Medicine Candidates as Complementary Treatments for COVID-19: A Review of Their Mechanisms, Pros and Cons

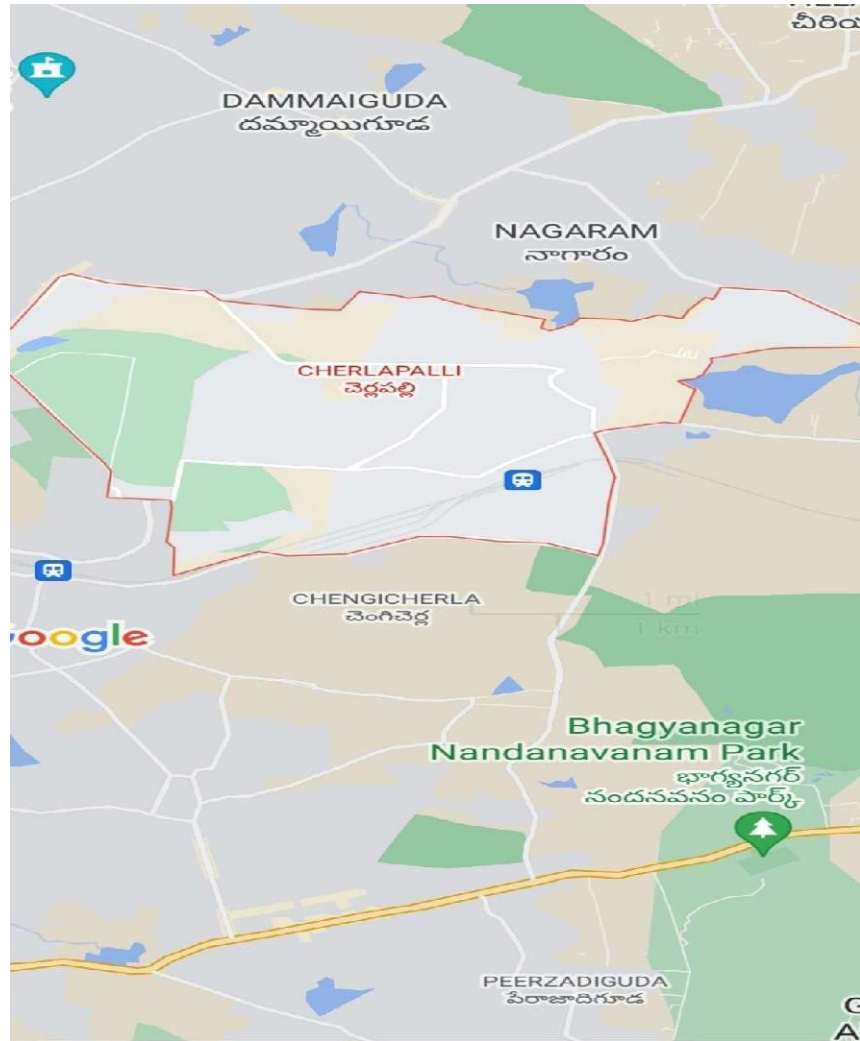
Abstract

Coronavirus disease 2019 (COVID-19) is a new infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) that belongs to the coronavirus family. The first case was reported in December 2019, and the disease has become a pandemic. Impaired immune regulation is one of the factors that play a role in its pathogenesis and results in poor outcomes of COVID-19 patients. There have been many studies with drug candidates used as antivirals or immunomodulators. However, the results of these investigations showed that the drug candidates were not significantly effective against the disease. Meanwhile, people believe that consuming herbal immunomodulators can prevent or even cure COVID-19. Unfortunately, specific preclinical and clinical trials to evaluate the effects of herbal immunoregulators have not been conducted. Certain natural compounds might be effective for the treatment of COVID-19 based on general concepts from previous experiments. This review discusses some herbal agents extracted from various plants, including *Echinacea*, *Cinchona*, *Curcuma longa*, and *Curcuma xanthorrhiza*, which are considered for the treatment of COVID-19. In addition, we discuss the pros and cons of utilising herbal medicine during the COVID-19 pandemic, draw some conclusions, and make recommendations at the end of the session.

CHAPTER-III
STUDY AREA

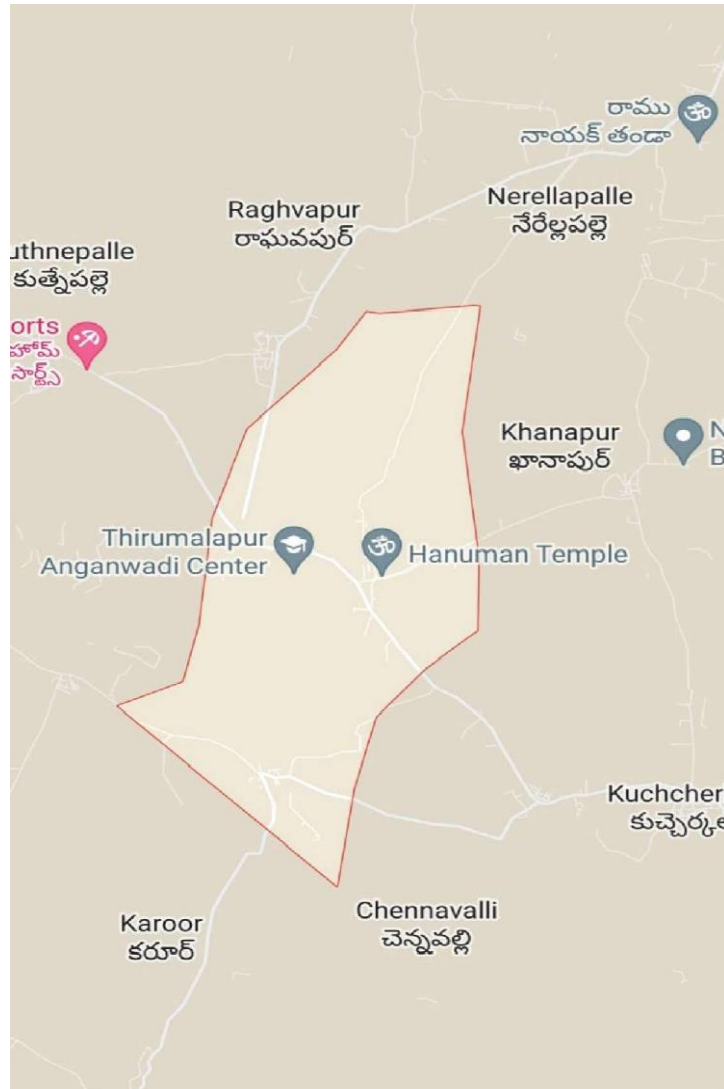
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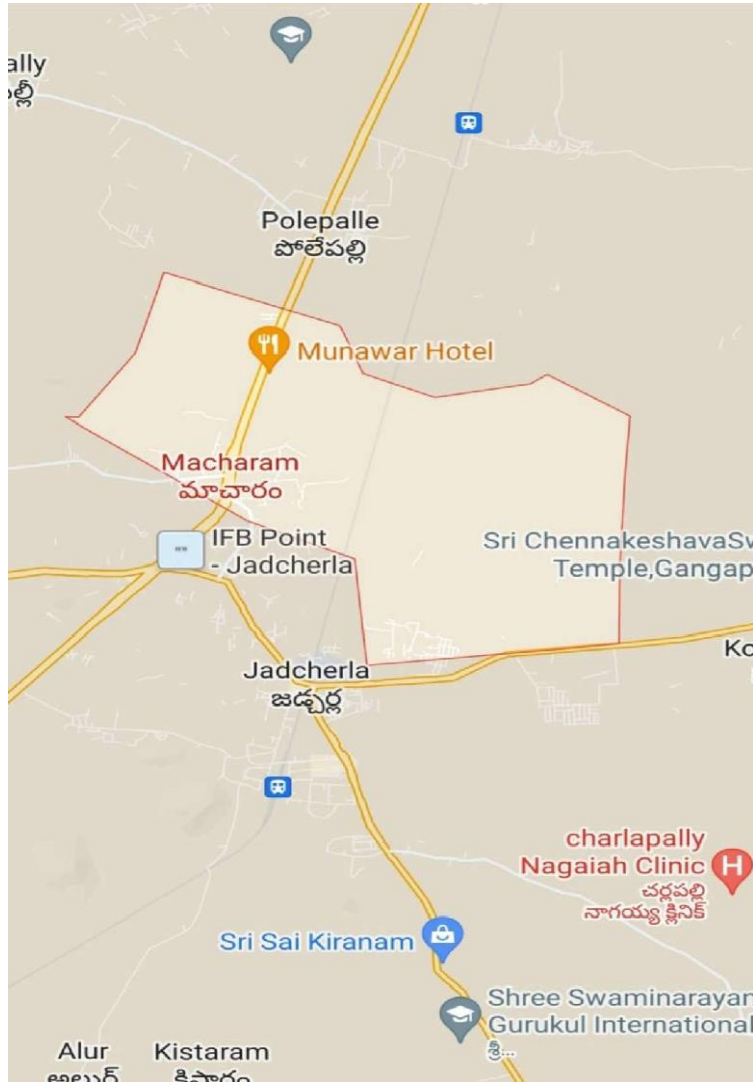
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THIRUMALAPUR



SELECTION OF STUDY AREA

MACHARAM



CHAPTER-IV
METHODOLOGY

We surveyed the Home Ingredients used by those who came to Corona to reduce corona. People with corona disease in the village go to their home and they have no corona reduction. A report has been prepared on which Home Ingredients to use. Many who came to corona said that they used home ingredients. Home ingredients have been shown to give better results than tablets. Those who came to corona said that taking these home ingredients along with their food during the day reduced the corona symptoms up to some food. corona came infusion, milk- turmeric, pepper, cloves, ginger, jaggery. They used Home Ingredients even though they had medicinal properties like.

This survey shows that the corona symptoms decrease if a person who comes home with corona uses it for 15 days. Name of the person infected with corona in this survey, date of arrival of corona. Find out how many days Home Ingredients used at the time. He told them what the consequences would be for using them. Some of them said they got good results.

You can also reduce the corona with homemade home remedies rather than buying and using tools with money. The use of home ingredients not only reduces the risk of corona disease but they are also good for our health.



CHAPTER-V
RESULTS AND DISCUSSION

S.NO	NAMES	DATE	USED HOME INGREDIENTS	NO. OF DAYS	RESULTS	OPINION ON THE USING OF INGREDIENT
1	Ramesh Goud	16-06-2021	Giving pepper, ginger, turmeric powder, basil leaves, jaggery, ginger powder	15 days	healer	Positive
2	Jangamma	13-07-2021	Ginger tea, saffron turmeric powder, black pepper, jaggery	1 month	healer	Positive
3	Arjun	13-07-2021	Basil water, jaggery tea, black pepper, turmeric powder	16 days	healer	Positive
4	Sandhya	15-07-2021	Ginger powder, raisins almonds black pepper	15 days	healer	Positive
5	Vinay	12-07-2021	Saffron, ginger tea,	7 days	healer	positive

			black pepper, turmeric powder			
6	K. Naresh	02-05- 2021	Ginger, jaggery, black pepper, turmeric powder	7days	healer	Positive
7	Ph. Harika	05-05- 2021	Steaming, black pepper, turmeric powder, saffron	15 days	healer	Positive
8	K. Padma	25-10- 2021	Ginger powder, ginger tea, saffron, black pepper	20 days	healer	Positive
9	K. Mallahia	15-10- 2020	Ginger powder, saffron, black pepper, basil water	5-7 days	healer	Positive
10	G. Laxmahia	05-02- 2021	Turmeric powder, raisins almonds, ginger tea, black pepper	7 days	healer	Positive

11	G. Bongu Ramma	05-03-2021	Cinnamon, ginger powder, black pepper, ginger tea, jaggery	15 days	healer	Positive
12	G. Yadhahia	06-04-2020	Pepper, basil leaves, cinnamon wood powder, ginger powder, turmeric powder	6-7 days	healer	Positive
13	K. Sathosh	20-04-2020	Saffron, ginger, jaggery, ginger powder, black pepper	15-20 days	healer	Positive
14	K. Laskar	05-03-2021	Cinnamon wood, black pepper, ginger, jaggery, basil leaves, saffron, turmeric powder	7-8 days	healer	Positive
15	J. Ramesh	15-08-2021	Saffron, leaves, basils	15-18 days	healer	positive

			leaves, ginger tea, black pepper, turmeric powder, steaming			
16	A. Kumar	5-03- 2022	Turmeric powder, ginger, jaggery, cinnamon wood	14-15 days	healer	Positive
17	G. Naga Jyothi	14-08- 2021	Turmeric powder, cinnamon wood powder, black pepper, saffron, jaggery	7 days	healer	Positive
18	G. Manoj	14-08- 2021	Turmeric powder, cinnamon wood powder, saffron, gigger tea	8-10 days	healer	Positive
19	G. Ravinder	13-05- 2020	Saffron, ginger tea, black pepper, ginger	5-6 days	Non healer	negative

			powder, turmeric			
20	K. Karthik	20-04- 2020	Black pepper, ginger tea, turmeric powder, steaming	10-15 days	healer	Positive
21	S. Shiva	20-05- 2021	Basil leaves, ginger powder, black pepper, turmeric powder, ginger tea	7-10 days	healer	Positive
22	K. Ragavendhar	02-06- 2020	Saffron, turmeric powder, black pepper, ginger tea, basil leaves	10-15 days	healer	Positive
23	C. Pravin Kumar	05-06- 2020	Saffron, ginger tea, basil leaves, turmeric powder	7-10 days	healer	Positive
24	K. Rajsekar	25-04- 2021	Ginger tea, jaggery, black pepper, turmeric, saffron	6-7 days	healer	Positive

25	G. Maheswari	13-05-2020	Saffron, ginger tea, ginger powder, turmeric, jaggery	10-15 days	healer	Positive
26	Ragavendra	20-05-2021	Black pepper, ginger tea, milk, turmeric, saffron	15 days	healer	Positive
27	Srishalam	22-05-2021	Ginger, jaggery, ginger, black powder, basil leaves, saffron	20 days	healer	Positive
28	Srihari	14-05-2020	Dey fruits, basil leaves, water, saffron	15 days	healer	Positive
29	B. Laxman	14-01-2021	Ginger tea, black pepper, saffron, jaggery	12 days	healer	Positive
30	Sanjiva	20-05-2021	saffron, basil leaves water	1 month	healer	Positive
31	Jyothi Goud	20-05-2021	Basil leaves water, saffron, ginger tea	1 month	healer	Positive

32	Narendher Goud	20-08- 2021	Saffron, ginger tea, pepper, fruits	15 days	healer	Positive
33	Rani	20-07- 2021	Saffron, ginger tea, jaggery, black pepper	15 days	healer	Positive
34	Mallesh Goud	25-06- 2021	Saffron, ginger tea, ginger powder	15 days	healer	Positive
35	Hari Shekar	20-09- 2020	Hot water, cinnamon wood powder, saffron, jaggery, milk	7 days	healer	Positive
36	Nagamani	25-12- 2021	Cinnamon wood, saffron, jaggery, milk, ginger tea	18 days	healer	Positive
37	Shankarahia	13-01- 2021	Taida pudding, ginger tea, basil water	18 days	healer	Positive
38	Raju	14-02- 2021	Ginger tea, turmeric, ginger pepper, jaggery	15 days	healer	Positive
39	Chemdrahia	18-05- 2021	Saffron, milk, turmeric, ginger tea	16 days	healer	Positive

40	Shaker	21-11-2021	Saffron, ginger tea, black pepper	20 days	healer	Positive
41	Yadaiah	04-04-2021	Saffron, ginger tea, black pepper, turmeric powder	7 days	healer	Positive
42	Kondaiah Goud	03-05-2021	Ginger, jaggery, black pepper, turmeric powder	15 days	healer	Positive
43	Bhaua	04-05-2021	Steaming, black pepper, turmeric powder, saffron	20 days	healer	Positive
44	Chennakesh avalu	11-07-2021	Ginger powder, ginger tea, saffron, black pepper	14 days	Non healer	Negative
45	Raghupathi Reddy	16-09-2020	Dry fruits, basil leaves water, saffron	7 days	healer	Positive
46	Padma	06-02-2021	Ginger tea, black pepper, saffron, jaggery	5-7 days	Non healer	Negative

47	Ragavendra	05-03-2021	saffron, basil leaves wate	7 days	healer	Positive
48	Laxman	06-04-2021	Saffron, ginger tea, pepper, fruits	6 days	healer	Positive
49	Yadaiah	16-07-2021	Saffron, ginger tea, ginger powder	6 days	healer	Positive
50	Raju	14-07-2021	Cinnamon wood, saffron, jaggery, milk, ginger tea	20 days	healer	Positive
51	Kiran	03-07-2021	Turmeric powder, ginger, jaggery, cinnamon wood	16 days	healer	Positive
52	Rajaya	19-05-2021	Turmeric powder, cinnamon wood powder, black pepper, saffron, jaggery	20 days	healer	Positive
53	Pavani	21-11-2021	Saffron, milk, turmeric, ginger tea	6 days	healer	Positive

54	Suresh	20-05-2021	Saffron, ginger tea, black pepper	15 days	healer	Positive
55	Ramaswami	22-08-2021	Turmeric powder, cinnamon wood powder, black pepper	7 days	healer	Positive
56	Vennela	14-08-2021	Turmeric powder, ginger, jaggary, cinnamon wood	15 days	Non healer	Negative
57	Yadhaya	14-08-20210	Saffron, milk, turmeric, ginger tea	16 days	healer	Positive
58	Bharath Goud	14-05-2021	Ginger powder, ginger tea, saffron, black pepper	15 days	healer	Positive
59	Karthik	24-04-2021	Ginger powder, saffron, black pepper, basil water	7 days	healer	Positive
60	Nagaraju	20-05-2021	Turmeric powder, ginger,	18 days	Non healer	negative

			jaggery, cinnamon wood			
61	Arjun	02-06- 2020	Saffron, ginger tea, black pepper, ginger	14 days	healer	Positive
62	Ajanya	25-04- 2021	Ginger tea, black pepper	1 month	healer	Positive
63	Swapna	15-08- 2021	Dry fruits, basil leaves water, saffron	1 month	Non healer	Negative
64	Srishellam	31-05- 2022	Black pepper, ginger tea, milk, turmeric	7 days	healer	Positive
65	Anjaneyulu	12-07- 2020	Ginger, jaggery, ginger, black pepper, basil leaves water, saffron	20 days	healer	Positive
66	Raju	05-05- 2021	Saffron, basil leaves water	14 days	healer	Positive
67	Yogendhra	26-09- 2020	Ginger, jaggery, ginger, black pepper, basil leaves water, saffron	15 days	healer	Positive

68	Pulla Reddy	25-03-2021	Black pepper, ginger tea, milk, turmeric, saffron	18 days	healer	Positive
69	Shipla	10-09-2021	Saffron, milk, tea	15 days	healer	Positive
70	Anjali	13-07-2021	Saffron, milk tea		healer	Positive
71	Setharam	05-02-2021	Saffron, ginger tea, black pepper	12 Days	healer	Positive
72	Yadaiah	15-07-2021	Ginger, jaggery, black pepper, turmeric powder	15 days	Non healer	Negative
73	Jevitha	15-07-2021	Basil leaves water, saffron, ginger tea	14-15 days	healer	Positive
74	Ramulu	06-05-2021	Taida pudding, ginger tea, basil water	6 days	healer	Positive
75	Yadhaih	17-02-2021	Hot water, cinnamon wood powder, saffron, jaggery, milk	10 days	healer	Positive

76	Sonali	11-03-2021	Saffron, milk, turmeric, ginger tea	15 days	healer	Positive
77	Vinay	21-09-2021	Ginger, jaggery, ginger, black pepper, basil leaves, saffron	20 days	healer	Positive
78	Naresh	18-10-2021	turmeric powder, ginger, jaggery, cinnamon wood	1 month	healer	Positive
79	Ramesh	20-11-2021	Turmeric powder, cinnamon wood powder, black pepper, saffron, jaggery	7 days	healer	Positive
80	Sitaram Reddy	22-12-2021	Ginger, jaggery, black pepper, turmeric powder	8-10 days	healer	Positive



(TURMERIC)



(BLACK PEPPER)



(BASIL)



(CINNAMON WOOD)



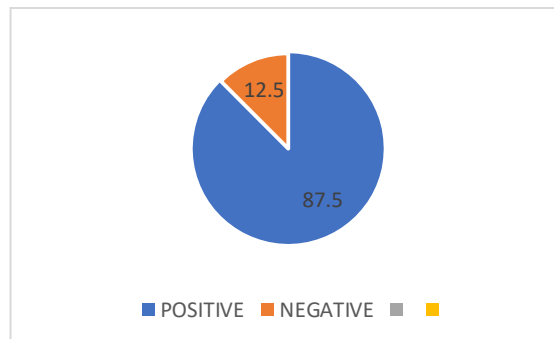
(GINGER)



(SAFFRON)

CHAPTER-VI
CONCLUSIONS

Home Ingredients Survey doing time used by those who came to corona to reduce the disease. 87.5% of people who used Home Ingredients used the positive answer, but some who used Home Ingredients give a negative answer. Negative Answer 12.5% people said. This survey in most people says positive Answer. So many people. used basil leaves, ginger and black pepper, ginger. That Ingredients increasing immunity power. basil leaves good for Health. And ginger is known to reduce corona due to Home Ingredients. Using this things immunity power increasing and the corona virus is decreasing. Black pepper works as a good medicine. That's why home Ingredients is using 87.5% Positive Answer.



[This Survey Results on some people healer, some people non healer say. Most people said he was a healer.

Since early 2020, numerous Pharma companies collaborating with academics or state-sponsored research institute have joined the race of therapy development to combat wildly spreading COVID 19. As of July 2020, a range of various therapeutics has been discovered, from small molecules neutralizing antibodies, to bioengineered Products, aided with computational chemistry and virtual screening, has established a large library. small molecules, showing, favourable binding researchers of novel attinity with validated drug targets, but the efficacy and toxicity of those lead Compounds need further testing in both Preclinical models and human subjects.. Nevertheless, at this point, it seems optimizing a novel lead for CoVID-19 is m not a Preferred option as typically the whole pipeline of new drug development take years even it FDA grants expedia. ted approval, and it is unimaginable for the public to endure another prolonged en of economic and public health hardship. As for neutralizing antibody, the situation is also gloomy, because establishing manufacturing infrastructure and managing supply chain of biologics are much more of menaced and demanding than small molecular drug. Thanks to the recent advances in bioengineering. several nanoengineered therapeutics have been designed to treat CoviD-19. Zhang et al. I recently madi of reported novel nono-sponges the plasma membranes derived from human

lung epithelial type II cells. These mono- sponges display the membrane receptors recognizable to SARS-CoV-2. They showed that following incubation with their nono - Sponges, SARS- Cova Dost infectability. Huo et al. Produced, an array of nanobodies that bind SARS-CVO-a receptor and block its Interaction with ACE2. Though such studies open exciting new path for therapeutics discovery? Jack of clinical data stops them from becoming relevant in the short terms to date there is no approved drug for any kinds of human coronavirus. infection. Including SARS-COV, MERS-COV or SARS-COV-2.

Since the outcome of current therapeutics in severe/critical COVID-19 Patients are still debatable, Prevention rather than treatment becomes more important to restrain this pandemic. Blocking entry of SARS-CoV-2 and Suppressing the intention at initial stage are considered as more Practical strategy vaccine has been historically used to prevent influenza. Today antibody responses and serum-neutralizing activity are standard Parameters used to evaluate the short term efficacy of vaccine whereas the long -ss cannot be truly term effectiveness cannot be truly determined until the Vaccinated Population show acquired immunity against infection when exposed to the Virus of interest without intervention. Be -sides, recent Clinical report Pointed out that neutralizing antibody level in patients who experienced asymptomatic SARS-COV-2 infection declined rapidly after recovery, which leads to a concerning question how Jong vaccination is able to maintain its Protection against COVID-19. In terms of Pre-exposure/post-exposure prophylaxis, NIHI recently launched trials to test the Preventive effectiveness of monoclonal antibody while the trial is ongoing. intravenous injection of antibody in large population brings up a lot of feasibility Issues, Even the Prophylactic efficacy of remdesivir was proven to be better than" its therapeutic efficacy in theses macaque model, Current administration route of remdesivir is limited to iv infusion that restricts its use in non-hospitalized population (Administration).

Natural products and herbal medicine have long track record to treat respiratory infection and many have approved as drugs! have been Over the counter nutrition or food additives. Products generally have satisfactory safety Profiles. The minimal toxicity makes natural product, and herbal medicines ideal prophylactic candidates for long-term use. on

recent in silico results of natural Products has been on array found highly potent in blocking enzyme function and membrane receptors of human Coronavirus. Moderate dosing of such bioactive compounds may prevent or at least slow down SARS-COV-2 infection Process. In addition, the Progression of COVID-19 is featured with uncontrolled inflammation, like cytokine release syndrome, so anti-inflammatory houbts will be a potential tool to suppress such total symptom. The stability of natural Products and herbal medicines in human gastrointestinal tract is barey an issue. The low pH in gastric environment. digestive enzymes, and get microbiome have less impact on the bioavailability of natural products and herbs compared to anti -body and other prophylactics. The advantages make's oral dosing rather than IV administration possible. In terms of availability. The case of production expansion realizes the mass deployment of herbal medicines to big population, while the large scale synthesis of monoclonal antibody and remdesivir is incredibly this challenging. In day and age, a safe, effective and stable form or oral dosage Prophylactics will be a strong asset for us to overcome COVID-19 Pandemic.

CHAPTER-VII

REFERENCES

References

1. Agostini M.L., Andres E.L., Sims A.C. Coronavirus susceptibility to the antiviral Remdesivir (GS-5734) is mediated by the viral polymerase and the proofreading exoribonuclease. *mBio*. 2018;9 221–218.
2. Anagha K., Manasi D., Priya L., Meera M. Scope of Glycyrrhiza glabra (Yashtimadhu) as an antiviral agent: a review. *J. Curr. Microbiol. App. Sci.* 2014;3:657–665.
3. Asl N.N., Hosseinzadeh H. Review of antiviral effects of Glycyrrhiza glabra L. and its active component, glycyrrhizin. *J. Med. Plants.* 2007;6:1–12.
4. Bano N., Ahmed A., Tanveer M., Khan G.M., Ansari M.T. Pharmacological evaluation of Ocimum sanctum. *J. Bioequiv. Availab.* 2017;9:387–392.
5. Bayan L., Koulivand P.H., Ali G. Garlic: a review of potential therapeutic effects. *Avicenna J. Phytomed.* 2014;4:1–14.
6. Belouzard S., Chu V.C., Whittaker G.R. Activation of the SARS coronavirus spike protein via sequential proteolytic cleavage at two distinct sites. *Proc. Natl. Acad. Sci. U. S.A.* 2009;106:5871–5876.
7. Carlos W.G., Cruz C.S.D., Cao B., Pasnick S., Jamil S. Novel Wuhan (2019-nCoV) coronavirus. *Am. J. Respir. Crit. Care Med.* 2020;201:7–8.
8. Casanova L.M., Jeon R.W.A., Weber D.J., Sobsey M.D. Effects of air temperature and relative humidity on coronavirus survival on surfaces. *Appl. & Environ. Microbiol.* 2010:2712–2717.
9. Chang J.S., Wang K.C., Yeh C.F., Shieh D.E., Chiang L.C. Fresh ginger (*Zingiber officinale*) has anti-viral activity against human respiratory syncytial virus in human respiratory tract cell lines. *J. Ethnopharmacol.* 2013;145:146–151.
10. Chen N., Zhou M., Dong X., Qu J., Gong F., Han Y. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. *Lancet.* 2020;395(10223):507–513.

11. Cheng P.W., Ng L.T., Chiang L.C., Lin C.C. Antiviral effects of saikosaponins on human coronavirus 229E in vitro. *Clin. Exp. Pharmacol. Physiol.* 2006;33:612–616.
12. Chu C.M., Cheng V.C.C., Hung I.F.N. Role of lopinavir/ritonavir in the treatment of SARS: initial virological and clinical findings. *Thorax.* 2004;59:252–256.
13. Coronavirus: Common Symptoms, Preventive Measures, & How to Diagnose It. Caringly Yours. 28 January 2020. (Retrieved 28 January 2020).
14. Cui J., Li F., Shi Z.L. Origin and evolution of pathogenic coronaviruses. *Nat. Rev. Microbiol.* 2019;17:181–192.
15. Fatima M., Zaidi N.U., Amraiz D., Afzal F. In vitro antiviral activity of Cinnamomum cassia and its nanoparticles against H7N3 influenza A virus. *J. Microbiol. Biotechnol.* 2016;26:151–159.
16. Fiore C., Eisenhut M., Krausse R., Ragazzi E., Pellati D., Armanini D., Bielenberg J. Antiviral effects of Glycyrrhiza species. *Phytother. Res.* 2008;22:141–148.
17. Ghoke S.S., Sood R., Kumar N., Pateriya A.K., Bhatia S., Mishra A., Dixit R., Singh V.K., Desai D.N., Kulkarni D.D., Dimri U., Singh V.P. Evaluation of antiviral activity of Ocimum sanctum and Acacia arabica leaves extracts against H₉N₂ virus using embryonated chicken egg model. *BMC Complement. Altern. Med.* 2018;18:174.
18. Guangdi Li., De Clercq Erik. Therapeutic options for the 2019 novel coronavirus (2019-nCoV) *Nature Rev. Drug Discov.* 2020;19(3):149–150.
19. Hashemipour M.A., Tavakolineghad Z., Arabzadeh S.A.M., Iranmanesh Z., Nassab S.A.H.G. Antiviral activities of honey, royal jelly, and acyclovir against HSV-1. *Wounds.* 2014;26:47–54.
20. Huang C., Wang Y., Li X., Ren L., Zhao J., Hu Y. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet.* 2020;395(10223):497–506.

21. Hui D.S., Iqbal E., Madani T.A., Ntoumi F., Kock R., Dar O. The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health - the latest 2019 novel coronavirus outbreak in Wuhan, China. *Int. J. Infect. Dis.* 2020;91:264–266.
22. Jaimes J.A., Millet J.K., Stout A.E., Andre N.M., Whittaker G.R. A tale of two viruses: the distinct spike glycoproteins of feline coronaviruses. *Viruses.* 2020;12
23. Jiang Z.Y., Liu W.F., Zhang X.M., Luo J., Ma Y.B., Chen J.J. Anti-HBV active constituents from *Piper longum*. *Bioorg. Med. Chem. Lett.* 2013;23:2123–2127.
24. Jin Y.H., Cai L., Cheng Z.S., Cheng H., Deng T., Fan Y.P. A rapid advice guideline for the diagnosis and treatment of 2019 novel coronavirus (2019-nCoV) infected pneumonia (standard version) *Mil. Med. Res.* 2020;7:4.
25. Kim H.Y., Eo E.Y., Park H., Kim Y.C., Park S., Shin H.J., Kim K. Medicinal herbal extracts of Sophorae radix, Acanthopanax cortex, Sanguisorbae radix and Torilis fructus inhibit coronavirus replication in vitro. *Antiviral Therap.* 2010;15:697–709.
26. Konowalchuk J., Speirs J.I. Antiviral effect of commercial juices and beverages. *Appl. & Envir. Microb.* 1978;35:1219–1220.
27. Lee J.B., Miyake S., Umetsu R.H.K., Chijimatsu T., Hayashi T. Anti-influenza virus effects of fructan from welsh onion (*Allium fistulosum* L.) *Food Chem.* 2012;134:2164–2168.
28. Li S.Y., Chen C., Zhang H.Q., Guo H.Y., Wang H., Wang L., Zhang X., Hua S.N., Yu J., Xiao P.G., Li R.S., Tan X. Identification of natural compounds with antiviral activities against SARS-associated coronavirus. *Antivir. Res.* 2005;67:18–23.
29. Li Q., Guan X., Wu P., Wang X., Zhou L., Tong Y. Early transmission dynamics in wuhan, China, of novel coronavirus-infected pneumonia. *N. Engl. J. Med.* 2020;382:1199–1207.
30. Lin L.T., Hsu W.C., Lin C.C. Antiviral natural products and herbal medicines. *J. Tradit. Complement. Med.* 2014;4:24–35.

31. Lu H. Drug treatment options for the 2019-new coronavirus (2019-nCoV) *Biosci. Trends.* 2020;14:69–71.
32. Lu R., Zhao X., Li J., Niu P., Yang B., Wu H. Genomic characterization and epidemiology of 2019 novel coronavirus: implications for virus origins and receptor binding. *Lancet.* 2020;395(10224):565–574.
33. Mathie R.T., Baitson E.S., Frye J., Nayak C., Manchanda R.K., Fisher P. Homeopathic treatment of patients with influenza-like illness during the 2009 A/H₁N₁ influenza pandemic in India. *Homeopath.* 2013;102:187–192.
34. Miladi S., Abid N., Debernôt C., Damak M., Canard B., Aouni M., Selmi B. In vitro antiviral activities of extracts derived from *Daucus maritimus* seeds. *Nat. Prod. Res.* 2012;26:1027–1032.
35. Momattin H., Al-Ali A.Y., Al-Tawfiq J.A. A systematic review of therapeutic agents for the treatment of the Middle East respiratory syndrome coronavirus (MERS-CoV) *Travel Med. Infect. Dis.* 2019;30:9–18.
36. Morse J.S., Lalonde T., Xu S., Liu W.R. Learning from the past: possible urgent prevention and treatment options for severe acute respiratory infections caused by 2019-nCoV. *Chembiochem.* 2020;21:730–738.
37. Novel Coronavirus 2019, Wuhan, China | CDC. 23 January 2020. Archived from the original on 20 January 2020. Retrieved 23 January 2020., 2019 Novel Coronavirus Infection (Wuhan, China): Outbreak Update. Canada.Ca. 21 January 2020.
38. Omer M.O., AlMalki W.H., Shahid I., Khuram S., Altaf I., Saeed I. Comparative study to evaluate the anti-viral efficacy of *Glycyrrhiza glabra* extract and ribavirin against the Newcastle disease virus. *Pharm. Res.* 2014;6:6–11.
39. Praditya D., Kirchhoff L., Brüning J., Rachmawati H., Steinmann J., Steinmann E. Anti-infective properties of the golden spice curcumin. *Front. Microbiol.* 2019;10:912.

40. Ren L.L., Wang Y.M., Wu Z.Q., Xiang Z.C., Guo L., Xu T. Identification of a novel coronavirus causing severe pneumonia in human: a descriptive study. *Chinese Med. J.* 2020 (In Press)
41. Sexton N.R., Smith E.C., Blanc H., Vignuzzi M., Peersen O.B., Denison M.R. Homology-based identification of a mutation in the coronavirus RNA-dependent RNA polymerase that confers resistance to multiple mutagens. *J. Virol.* 2016;90:7415–7428.
42. Sheahan T.P., Sims A.C., Leist S.R. Comparative therapeutic efficacy of remdesivir and combination lopinavir, ritonavir, and interferon beta against MERS-CoV. *Nat. Commun.* 2020;11
43. Su S., Wong G., Shi W., Liu J., Lai A.C.K., Zhou J., Liu W., Bi Y., Gao G.F. Epidemiology, genetic recombination, and pathogenesis of coronaviruses. *Trends Microbiol.* 2016;24:490–502.
44. The Editorial Board Is the world ready for the coronavirus? - distrust in science and institutions could be a major problem if the outbreak worsens. *The New York Times.* 29 January 2020 Retrieved 30 January 2020.
45. Transmission of Novel Coronavirus (2019-nCoV) | CDC. 31 January 2020. Retrieved 1 February 2020.
46. Wan Y., Shang J., Graham R., Baric R.S., Li F. Receptor recognition by novel coronavirus from Wuhan: an analysis based on decade-long structural studies of SARS. *J. Virol.* 2020;94
47. Wang L., Yang R., Yuan B., Liu Y., Liu C. The antiviral and antimicrobial activities of licorice, a widely-used Chinese herb. *Acta Pharm. Sin. B.* 2015;5:310–315.
48. Wang L., Yang R., Yuan B., Liu Y., Liu C. The antiviral and antimicrobial activities of licorice, a widely-used Chinese herb
The antiviral and antimicrobial activities of licorice, a widely-used Chinese herb. *Acta Pharm. Sin. B.* 2015;5:310–315.

49. Wang M., Cao R., Zhang L. Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) in vitro. *Cell Res.* 2020;30:269–271.
50. Weber N.D., Andersen D.O., North J.A., Murray B.K., Lawson L.D., Hughes B.G. In vitro virucidal effects of *Allium sativum* (garlic) extract and compounds. *Planta Med.* 1992;58:417–423.
51. WHO Statement Regarding Cluster of Pneumonia Cases in Wuhan, China 9 January 2020. Archived from the original on 14 January 2020. Retrieved 10 January 2020.
52. Xu Z., Peng C., Shi Y. Nelfinavir was predicted to be a potential inhibitor of 2019-nCoV main protease by an integrative approach combining homology modelling, molecular docking and binding free energy calculation. *bioRxiv.* 2020 (In Press)
53. Zhu N., Zhang D., Wang W., Li X., Yang B., Song J. A novel coronavirus from patients with pneumonia in China. *N. Engl. J. Med.* 2020;382:727–733.

