



Medicinal plants used against Covid-19 (SARS-CoV-2) disease by Tribal's of North East Region from Nashik District, Maharashtra

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Abstract

The infectious disease like covid – 19 (SARS-CoV-2) is not perfectly treated with actual medicines so the tribals and village peoples using different plants with their own formulations to stop and reduced the infection. At primary level these herbal medicines are perfectly working. The decoction, juice, infusion, poultice is administered by the tribals. This home remedies boost immune power, release cough, reduces fever, stops sneezing and coughing and improves oxygen level in blood. Total 21 species belonging to 19 genera and 12 families of the region are truly helpful to them. Few plants do not grow in the region but their products are available in the market.

Keywords: administered, covid, bhasma, kadha, poultice

Introduction

The human beings using the plants for food, medicine, shelter and other purposes since time immemorial. Initially the plants were only used for food but after getting illness they were trying to used this plants through various ways on trial and error basis to treat the diseases. When civilization began from that time Vaidu, Bhagat, Medicine man, Elderly village people started the practices against various diseases. The root, stem, leaves, Bark, flowers, fruits, seeds, latex, gum, resin etc, were used in different forms. Bhasma (Dry ash), Kadha (Decoction), Powder, Poultice, Infusion, Oil were given to treat diseases on the basis of symptoms of the person. The tribal peoples treat the diseases at home with their traditional knowledge. But the disease like Covid – 19 (SARS-CoV-2) is almost new to the whole world and nobody knows the actual treatment to overcome the pandemic.

On the basis of symptoms like fever, cough, sneezing, dysentery, taste and smell loss, omitting, the tribals of the region started their practices on the basis of their experienced to overcome the disease. They got 90 percent success by using these plants. Generally Kadha (Decoction) is helpful to reduce the throat and chest Infection in early days.

Methodology

The data presented in this work is based on the information obtained from the Vaidu, Bhagat, Elderly Village man, Grandma's and tribal's of the region. Interviews were taken for gathering truthful information on uses of medicinal plants. The plants are arranged in families according to alphabetical manner.

List of plants with administration method

Table 1

Sr. No.	Name of the Plant	Local Name	Family	Plant Part used	Administration method
1	<i>Allium cepa</i> L.	Kanda	Amaryllidaceae	Bulbs, Juice	A cup of onion juice along with pinch salt is given twice or thrice a day for 6-7 days.
2	<i>Allium sativum</i> L.	Lasun	Amaryllidaceae	Bulbs, Juice	A liter of water is kept on fire for 10-15 min. in which 5-6 bulbs are added along with black salt and given to inhaled steam.
3	<i>Aloe vera</i> (L.) Burm.f.	Korpad	Liliaceae	Pulp, Juice	A tablespoon pulp or juice is given in empty stomach for 14 days in the morning and 14 days in the night at the time of sleeping.
4	<i>Azadiracta indica</i> A. Juss.	Nimb	Meliaceae	Leaves	The juice is extracted from leaves and given to drink for 4-5 days early in the infection. Leaves are given to chew for 10 days.
5	<i>Cinnamomum tamala</i> (Buch.-Ham.) Nees & Eberm.	Tejpan	Lauraceae	Leaves	For 4 persons a liter of water is taken in which single leaf is taken for decoction along with Zingiber, Turmeric, Lavang, Tulasi and Miri. 15 -20 gram jaggery is added and reduced the water to ¼. The decoction is given to drink thrice a day for 5 days or if somebody came in the contact of infected person.
6	<i>Citrus limon</i> (L.) Burm.)	Nimbu	Rutaceae	Fruits, Leaves	A glass of water is taken along with sugar or jaggery and 1-2 fruits juice is mixed and stirred and given twice a day to any age group.
7	<i>Citrus limetta</i> (Burm.) Merr.	Santra	Rutaceae	Fruits, Fruit Bark	Dried bark of Santra fruit is made into powder form and taken 1 tablespoon along with 1 tablespoon of Aawala powder and mixed in a glass of lukewarm water and kept overnight and taken whole glass for adults and half to children's early in the morning in empty stomach which increases immune power.
8	<i>Curcuma longa</i> L.	Halad	Zingiberaceae	Rhizome	Pinch of powder is added in lukewarm milk and taken twice day to stop and reduced the infection.

					Pinch of powder is added in different decoctions.
9	<i>Cymbopogon citratus</i> L.	Gavati Chaha	Poaceae	Leaves	The leaves are added in black tea which removes cough in the chest and also gives flavor to the tea. Leaves are added in decoction.
10	<i>Cinamon verum</i> J. Presl	Dalchini	Lauraceae	Bark	3gm Dalchini, 4-5 lavang, 3 veldoda, 5 miri, 2gm aale, 5-6 leaves of Tulasi is added in a liter of water and 1/4 decoction is prepared and given to drink once a day for 5 days only at the time of infection or if somebody is in the contact of infected person.
11	<i>Elettaria cardamomum</i> (L.) Maton	Veldoda	Zingiberaceae	Fruits	The fruits are given to chew. Fruits are added in different decoction materials.
12	<i>Emblica officinalis</i> Linn. Pennel	Aawala	Fabaceae	Fruits	The dried fruit powder is used in Sarbat and decoction. Fruits are sliced and dried by adding salt and sugar solution and given to chew.
13	<i>Glycirriza glabra</i> Linn.	Jestmadh	Fabaceae	Stem	Two cups of water is kept on fire and 1 tablespoon powder is added and boiled till reduced 1 cup of water and sieve and cool it. Now add 1 spoon of Zingiber juice and lemon juice and given empty stomach in the morning for 3 days. The stem pieces are given to chew to reduce throat infection.
14	<i>Mentha piperta</i> L.	Pudina	Lamiaceae	Leaves	The leaves are made into paste and given to eat by adding honey. Leaves are added in decoction.
15	<i>Ocimum sanctum</i> Linn.	Tulas	Lamiaceae	Leaves	The 5-6 leaves are eaten daily early in the morning. Leaves are added in decoction.
16	<i>Piper betel</i> L.	Nagin pan	Piperaceae	Leaves	The leaves are rolled by adding fried or raw Oawa along with Kapoor and given to eat.
17	<i>Piper nigrum</i> Linn.	Miri	Piperaceae	Fruits	4-5 miri is added in decoction. Powder is used prepare infusion, poultice.
18	<i>Syziium aromaticum</i> (L.) Merr. & L.M.Perry	Lavang	Myrtaceae	Flower buds	Lavang is given to chew. 2-3 Lavangs are added in decoction.
19	<i>Trachyspermum ammi</i> (L.) Sprague ex Turill	Oawa	Apiaceae	Seeds	The Oawa are kept in cotton cloth along with Kapoor and given to inhale the smell which increases oxygen level in the body.
20	<i>Tinospora cordifolia</i> (Willd.) Hook. f. and Thoms.	Gulvel	Menispermaceae	Stem	4-5 stem pieces are added in a glass of water and kept on fire for decoction, as per need jaggery is added and given to drink thrice a day for 7-8 days in fever, cough, sneezing, headache and in the symptoms. To take empty stomach is beneficial.
21	<i>Zingiber officinale</i> Rosc.	Aale	Zingiberaceae	Rhizome	Juice is added in decoction. Pieces are added in decoction. Pieces are fried on pan in cow's ghee and given to chew as per need.

Result and Discussion

The 21 plant species from 19 genera and 12 families are useful to stop and reduced the covid 19 (SARS-CoV-2) infections.

This home remedies boost immune power, helps in tackling respiratory diseases, release cough, reduces fever, stops sneezing and coughing and improves oxygen level in blood and improves overall patients wellbeing. Each and every plant and its products are really helpful in its own way. Generally the decoction method is more popular in the region. For any type of Fever, Cough, Sneezing, Headache the Gulvel Kadha (*Tinospora cordifolia* decoction) is widely used.

The Gulvel grows on Nimb, Mango, Chinch, Jamun and on few other trees, but the Gulvel growing on Nimb tree is preferred by all because it has more potential to fight against pathogens in the body.

Dalchini, Lavang, Miri, Veldoda, Aale are easily available in the markets so the peoples living in towns used this products for decoction.

Different administration methods were developed by local peoples based on their own experiences. Based on this study came to know that the people living in the region are succeeded in preventing from covid 19 (SARS-CoV-2) infection.

Photoplates



Fig 1: Decoction of *Tinospora*



Fig 2: Raw material taken for



Fig 3: Raw material for second *cordifolia* decoction type of decoction

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