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Survey of Medicinal Plants used in making Decoction during Covid 19 Pandemic Situation from Parbhani district (M.S), India

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Abstract

Medicinal Plants plays an important role in the life of human beings from ancient time. During today's pandemic situation due to Covid 19 viral infection they also found to be effective in boasting the immunity. In several homes from parbhani district peoples are taking medicinal plant decoction for boasting immunity. The Ayurvedic Practitioner supply the mixture of medicinal plant parts of Ocimum, Adulsa, Ashwagandha, Ginger, Glycyrrhize, Gojihawa, Kawa, Khaksi, Bor (jujube) etc. in coarse form and powder form contains powder of cloves, cinnamon, black pepper, cardamom etc. as their formulation of their decoction/ kada as per the information obtained after interviewing the ayurvedic practitioners. Current paper focused on the identification of medicinal plants from the specimens supplied by Ayurvedic practitioners.

Keywords: Medicinal plants, pandemic, glycerrhiza, adulsa, decoction.

Introduction

Covid 19 is a pandemic declared by WHO on March 13 for Corona Virus-19 infection to human beings worldwide. As the spread of this Viral disease is by coughing, sneezing or by the droplets of sputum of infected person etc. Peoples are informed by the Government to follow rules regarding social distancing, always wash hands with soap or sanitizer, cover nose and mouth by mask or by cotton cloth etc. to avoid the infection [1]. It is also suggested to drink warm water or warm drinks after each 2hrs. The virus attacks mostly on respiratory system and secrets mucus on large scale due to this one may get suffered from breathing problem.

To avoid this infection peoples from Parbhani district took ayurvedic decoction/Kada supplied by Ayurvedic practitioners containing mixture of medicinal plant parts like pieces of root, stem leaves, bark, fruits, seeds, flowers etc. in coarse as well as in powdered forms in packets form.

As we know that medicinal plants play an important role in drug discovery and they are useful for curing various diseases of human beings [2]. These are used as drug source from ancient time [3] for curing diseases. Medicinal plants are safe, easily available natural resources of drugs all over the world used in traditional medicine systems of various countries [4]. Today still most of the Indian population uses ayurvedic medicine in contrast with allopathy because of the side effects of allopathic medicine as well as the cost of the treatment [5].

The current research focuses on the study of the ingredients of different kadha packets collected from different areas of Parbhani district in coarse and powdered form used to make decoction for consumption and for strengthening the immune system.

Methodology

The specimens of different kadas were collected from march 2020 –August 2020 from different areas of Parbhani district. The information was collected by interviewing the ayurvedic practitioner/ supplier. The information was confirmed on the basis of literature study, In the specimens the corse pieces of rhizome/ roots, stem bark, leaves, fruits, seeds were found, these were identified and confirmed by 1) organoleptic evaluation including parameters –colour, size, taste and odour. 2) macroscopic evaluation of root and stem particles includes shape, size surface etc. the leaves were analyse for presence of petioles, shape of lamina, leaf apex study was carried and the results are tabulated in Table 1. The research work is carried out in Department of Botany Shri Shivaji College, Parbhani. The samples were deposited in the laboratory for reference.

Results and Discussions

During this pandemic year due to Covid 19, Corona virus infection a survey was made in parbhani district to collect the ingredients of decoction / kadhas used by peoples using in different areas of parbhani district for boosting immunity. From study of the samples according to its organoleptic properties, macroscopic and microscopic studies the packets of the kadas contains a pieces of rhizome drug-*Glycyrrhiza glabra* linn [6,7] *Zinziber officinale* [8], *Curcuma longa* [9], **root drug-** *Withania somnifera* Dunal [10], **bark drug-** *Cinnamon cassia* [11] **leaf drug-** *Adathoda vasica* [12] *Ocimum sanctum* [13] *Malva sylvestre* [14] **fruit drug-** *Ziziphus jujube* [15], **buds** of *Syzygium aromaticum* [16], **seeds** of- *Sisymbrium irio* Linn [17] *Piper nigrum* [18] *Elattaria cardamomum* [19] were present. Botanical name, family name, common name, drug source, chief chemical constituents, some of the medicinal properties are given in Table 1.

Table 1: Study of contents of medicinal plants from kada packets in Parbhani district

Sr. No	Botanical name	Family name	Common name	Drug source	Chief Chemical constituents	Chief Medicinal properties/ work against
1	*Curcuma longa l.*	*Zingiberaceae*	Haldi	Rhizome	Curcumin, demethoxy curcumin, bisdemethoxycurcumin	Antioxodent, anti inflamatory, antibiotic, anti inflammatory etc
2	*Zingiber officinale*	*Zingiberaceae*	Adrak	Rhizome	Gingerol , oleoresin, Vitamin A,E &C, Eucalyptol	Bronchodialator, nausea, rheumatism, carminative etc
3	*Glycyrrhiza glabra*	*Leguminaceae*	Jestmadha	Rhizome	Glycyrrhizin, flavonoids, polysacchrides, triterpens, saponins	Expectorant, anti viral, in cardiovascular disorders etc

Table 1: Continued…

Sr. No	Botanical name	Family name	Common name	Drug source	Chief Chemical constituents	Chief Medicinal properties/ work against
4	*Withania somnifera*	*Solanaceae*	Ashwagandha	Root and Leaves	Withaferin, withanolides anaferine, saponins, flavonoid	Aphrodiasic, livertonic, anti inflammatory on asthma etc
5	*Cinnamon cassia*	*Lauraceae*	Dalchini	Bark	Resinous comp.-cinnamaldehyde, cinnamate, essential oils	Anti oxidant, anti microbial,anti inflammatory, antidiabetic etc.
6	*Adathoda vasica*	*Acanthaceae*	Adulsa	Leaf,stem and root	Vaicine, tannins, saponins	Expectorant in respiratory diseases etc.
7	*Ocimum sanctum*	*Lamiaceae*	Tulsi	Leaf,stem and root	Euginol, methyl eugenol, urosalic acid, carvacol, essential oils	Antiviral, antipyretic, asthma, arthritis, flu,cough & cold etc.
8	*Malva sylvestris*	*Malvaceae*	Mallow	Leaf and flower	Alkaloids, coumarins, Vit. A, C &E, Malvin, malvon A	Cough, cold, tonsillitis, bronchoitis, eczema, cutwounds, etc
9	*Zizipus jujuba*	*Rhamnaceae*	Ber	Ripe fruits	Vit.C, alkaloids, terpenoids, glucosides, triterpenic acids	Antioxidant, antidiabetic, anti cancerous,immunity booster etc
10	*Syzygium aromaticum*	*Myrtaceae*	Lavang	Floral buds	Essential oil-eugenol, gallilic acid, flavonoids, kempferol tannins	Anti oxidant,anti microbial, antiviral, antionceptive etc.
11	*Sisymbrium irio linn.*	*Cruciferae*	Khaksi	Seeds	Khubalpigenin, apigenin-7, galactoside, isohemertin	Immunity booster, bronchitis, fever cough, cold etc
12	*Piper nigrum*	*Piperaceae*	Black pipper	Seeds	Piperine, caryophylin, amides, pyrroidines, safrole, protein	Constipation, insomnia, toothaches, oral abscesses etc
13	*Elattaria cardamomm*	*Zingiberaceae*	Elaychi	seeds	Essential oils, limoneae,	Antioxidant, antibacterial, etc

Conclusion

From the above study it is conclude that the ingredients used in preparation of the kada contains immunity bosting, anti-viral, anti-bacterial, expectorant, anti-inflammatory etc. properties to promote health during this pandemic situation.

Conflicts of interest: The authors stated that no conflicts of interest.

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