Research Article

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TRADITIONAL MEDICINAL PLANT RESOURCES FROM MAVAL TALUKA, DISTRICT PUNE, MAHARASTRA, INDIA

Lodha A.S. *

Department of Botany, Dr.Arwind.B. Telang Senior College, Nigdi, Pune, Maharashtra. India

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***Corresponding author**

E-mail: abhay_jain222@rediffmail.com

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ABSTRACT

The importance of medicinal plants in traditional health care practices has been emphasized at the global level by world health organization. Plants have been used since old days as a traditional, valuable, cheap, local source of medicine in all parts of the world². The traditional knowledge of medicinal plants of a particular region for curing various diseases/ailments has been the practice all over India since long time. The world health organization, has reported that 80% of the world population relies on traditional medicines as first aid treatment for various health problems³. WHO has recommended the use of alternative traditional health care systems as first aid for treating various health problems³. In recent years use of plant based medicines is on rise due to various advantages. In view of the above information the present study aims to gather information on traditional medicinal Plant resources from Maval Taluka, District Pune, used for treating various diseases/ailments as a first aid treatment in the region. Accordingly a Manual Random survey was undertaken. A questionnaire was prepared & interviews were undertaken to fill up the questionnaire. Approximately 515 persons were interviewed. The study helped in documentation, creating awareness & application of the knowledge of medicinal plants used in the region, amongst wider section of the people residing in the area.

Keywords: Traditional, Medicinal plants, Disease, Maval, First-aid

INTRODUCTION

Man has been dependent on plant based traditional medicines since time immemorial. This knowledge of using plants to obtain medicines to treat various ailments has been gradually accumulated and transmitted from generation to generation in the course of several centuries, forming the basis of various indigenous medicinal systems such as Ayurveda, Unani and Siddha⁴. During the last few decades, an increasing interest in

the study of traditional uses of medicinal plants has been witnessed in different parts of the world, mainly due to high cost and other disadvantages associated with allopathic system of medicine. Additionally, the treatment of various diseases with indigenous medicinal plants has considerable health and economic benefits. Traditional knowledge in this regard has been conserved for generations in different communities in several parts of the world⁵.

Survey Location

MAP OF STUDY AREA LOCATION OF MAVAL TALUKA IN PUNE DISTRICT [MAP1]

Pune District is in the western region of Maharashtra, India. It is bounded by Thane district to the northwest, Raigad district to the west, Satara district to the south, Solapur to the southeast, and Ahmednagar to the northeast.

Pune district is located between 17.5° to 19.2° North and 73.2° to 75.1° East Average rainfall in the district is 600 to 700 mm. Pune stands on the leeward side of the Western Ghats. Pune is at an altitude of 559m. (1863 ft.)

Administratively the district is divided into 15 talukas. The present study has been carried out in Maval Taluka. Maval is a Taluka in Pune District of Maharashtra State, India. Maval

Taluka Head Quarters is Maval town. It belongs to Desh or Paschim Maharashtra region. It belongs to Pune Division.

Maval Taluka is bounded by Talegaon Dabhade Taluka towards East, Khalapur Taluka towards west, Mulshi Taluka towards South, Karjat Taluka towards North. Lonavla City, Talegaon Dabhade City, Pimpri Chinchwad City, Pen City are the nearby Cities to Maval. Rakshaswadi is the smallest Village and Induri is the biggest Village. It is at the 616 m elevation (altitude). It is Hot in summer. Maval summer highest day temperature is in between 33 ° C to 40° C. Average temperatures of January is 24 ° C, February is 25 ° C, March is 27 ° C, April is 28 ° C, May is 29 ° C. There are near about 100 villages in the Taluka.

LOCATION OF TALUKAS OF PUNE DISTRICT IN MAHARASHTRA [MAP2]

DATA COLLECTION METHOD

Present study is based on ethno botanical survey of Maval taluka. The field work in the villages of Maval taluka took place between July 2012-july 2013.. In order to collect information questionnaire was prepared. Key informants, elderly persons, vaidus, other concerned people were involved in interviews and discussions. The data collected on medicinal plants used included local name, part used and uses. All plant specimens were identified using local flora.

RESULTS AND DISCUSSION

Our study has revealed that people in study area still depend on the traditional medicines for the treatment of several ailments .The survey showed that people of study area Use 60 plants species belonging to 31 families to treat/cure/use as first aid

Treatment on a variety of ailments/health problems

The herbal preparations made from the traditional Medicinal plants were mostly used for the treatment of Stomachache, as Carminative, to relieve Constipation, to cure Flatulence, as Laxative, as Appetizer, to cure Fever Cold and Cough , as Antihelmintic, To treat Skin diseases, as Moisturizing agents, as Antibiotics, To treat Wounds, for reducing Body heat, as tonic for body strength, for Headache, for Acidity, Scabies, for Earache, For Diabetes, as Aphrodisiac, Leucorrhoea, to treat kidney stones, to increase Lactation, on Snake and Scorpion-bite, against Sunstroke, Toothache, piles, Body massage, Jaundice, urinary problems, to provide Soothing effect. To cure throat infection, to improve lactation, etc.

The study showed that a good number of the collected plants were used for the treatment of multiple diseases. It was observed that different parts of different plants are used as medicines. The medicines are administered /consumed in various forms like paste, powder, decoction, juice, etc..

Table 1: A list representing some botanicals and /or their particular parts used for treatment of various diseases in Maval Taluka

S.no	Local name of plant	Botanical name	Family	Uses
1	Isabgol	<i>Plantago ovata</i>	Plantaginaceae	Stomachic, relieves Constipation, Relieves pain in stomach, rich in fibers. ²⁰
2	Adrak /ale	<i>Zingiber officinale</i>	Zingiberaceae	Carminative, Appetizer, Emollient, Destroys germs, Stimulates appetite, Provides soothing effects. ¹⁷
3	Dhania, kothimbir	<i>Corinadum sativum.</i>	Umbelliferae /apiaceae	Stomachic, relieves Constipation, Carminative, Improves digestion, Cures flatulence, Provides soothing effects ¹³ .
4	Tesu, palas,	<i>Butea monosperma</i> Lam	Fabaceae	Antihelmintic ¹ , Kill worms in intestine. ²⁹
5	Aakol	<i>Alangium Salvifolium</i> Lam	Alangiaceae	Laxative, Loosens the bowels, Cures flatulence. ²¹
6	Guarpatha Korphad.	<i>Aloe barbadensis</i> Mill	Liliaceae	Anti-helmintic ¹ , Digestive, Stomachic, Kills worms from Intestine, Loosens the bowels, Leaves have moisturizing properties. ¹⁹
7	Mint, pudina	<i>Mentha arvensis</i> l.	Lamiaceae	Anti emetic, Antibacterial, Extricates worms from intestine, Provides cooling effects. ²²
8	Amla	<i>Phyllanthus Emblica</i> L.	Phyllanthaceae	Laxative, Stomachic, Improves digestion, Cures flatulence. ²⁰
9	Bael	<i>Aegle marmelos</i> (L.)Corr.Serr	Rutaceae	Appetizer, Restorative, Laxative, Increases appetite, Provides strength to body. Increases moisturization capacity of skin. ²⁴
10	Semal, shalmmali	<i>Bombax cieba</i> l.	Malvaceae	Appetizer, Destroys small colony of spores. ²¹
11	Papita, papai,	<i>Carica papaya</i> L.	Caricaceae	Anti-fungal, Destroys small colony of fungal Spores. ²³
12	Neem, kaduneem	<i>Azadirachita indica</i> A.Juss	Meliaceae	Bark, Seeds and leaves have antibiotic healing properties. ²⁴
13	Lahsun	<i>Allium sativum</i> L.	Liliaceae	Helpful in wound healing, rich in sulfur. ²⁰
14	Gunj	<i>Abrus precatorius</i> L.	Fabaceae	Leaf decoction used in Conjunctivitis, Digestive, Aphrodisiac ⁷
15	Bilayat, pivala dhotra.	<i>Argemone Mexicana</i> L.	Papaveraceae	Paste of seed mixed with <i>Datura fastuosa</i> seeds in limejuice used for Scabies. ²²
16	Kasindri	<i>Cassia occidentalis</i> L.	Caesalpinaceae	Decoction of seed used for whopping cough. reduces fat from the body. ²³
17	Bahava	<i>Cassia fistula</i> L.	Caesalpinaceae	Decoction of seed in honey used for indigestion problem in children. ²⁴
18	Tantani, ghaneri	<i>Lantana camara</i> L.	Verbenaceae	Juice of leaf applied on wounds. ²⁵
19	Umbar	<i>Ficus racemosa</i> L.	Moraceae	Root extract is used for general weakness ⁷ .
20	Sagwan	<i>Tectona grandis</i> L.	Tectonaceae	Mixture of seed powder, cow's milk and ghee is used for kidney stone. ²²
21	Talimkhana Kols unda	<i>Hygrophila spinosa</i>	Acanthaceae	Leaves and seeds are used in Jaundice. Seeds taken internally along with milk, which acts as tonic, aphrodisiac ⁷ .
22	Aghada	<i>Achyranthes aspera</i>	Amaranthaceae	The root decoction is used in scorpion stings. The root ash is given to children in cough. Leaf juice drops are put in nostrils to cure head-ache ¹³ .
23	Kate-koranti	<i>Barleria prionitis</i>	Acanthaceae	Leaf ash with butter is used on Leucoderma. Crushed fresh leaves are used for toothache and gum ailments. ³²
24	Bhilawa/ Bibba	<i>Semecarpus anacardium</i>	Anacardiaceae	The fruits are used in the treatment of cough, piles and boils. ²⁰
25	Karvand	<i>Carissa congesta</i> Wt. Icon.	Apocynaceae	Decoction of roots is given to women to relieve from delivery pain after child-birth. Latex is applied on lips to protect them in winter ¹⁹ .
26	Rui	<i>Calotropis procera</i> R. Br.	Asclepidaceae	Latex is diluted with cold water and the mixture is applied on forehead in headache. ²¹
27	Apta	<i>Bauhinia racemosa</i> Lam. Encycl.	Caesalpinaceae	Bark extract is given in indigestion. ²⁴
28	Babhul	<i>Acacia nilotica</i> (l.) Willd.	Mimosaceae	Powder of stem bark mixed with some common salt is applied on teeth and Gum to stop offensive smell of mouth as well as a used as tooth powder. Young twigs are used for cleaning teeth ³⁴ .
29	Nirgudi	<i>Vitex negundo</i>	verbenaceae	Leaves mixed in hot water and used for bath to reduce 'Vaata'. Mixture of leaf juice and urine of cow is taken internally by women in irregular menstruation ¹³ .
30	Kanher	<i>Nerium indicum</i> Mill	Apocyanaceae	Root paste applied on scorpion bite ⁴ .
31	Tulas, Tulsi	<i>Oscimum Sanctum</i>	Lamiaceae	Raw leaves used as mouth freshner, Leaf juice is mixed with honey and ginger juice and used to cure cough, Root used against scorpion sting. ²²

32	Katmath	<i>Amaranthus spinosus</i>	amaranthaceae	Leaf juice mixed with coriandrum and jeera seeds is used to make a sharbat and used for sunstroke. ²⁴
33	Shatavari	<i>Asparagus racemosus</i> Willd.	Liliaceae	Root powder used as tonic ⁷ , root paste increases lactation. ²⁰
34	Halad	<i>Curcuma longa</i>	Zingiberaceae	Rhizome powder boiled in milk & taken twice a day to cure cough and throat infection ¹⁷ .
35	Nilgiri	<i>Eucalyptus globulus</i> Labill.	Myrtaceae	Oil used to cure cold and headache, Hernia: Leaf crushed, warmed & applied on affected parts ¹⁹ .
36	Wad	<i>Ficus benghalensis</i>	Moraceae	Stem latex rubbed on tonsil swelling twice daily for a week, Prop root juice taken once a day for 3 days to treat jaundice ¹³ .
37	Adulsa	<i>Justicia adhatoda</i>	Acanthaceae	Leaf juice used to make cough syrup, Leaf juice taken once in early morning for 3 days for stomachache. ²³
38	Arand	<i>Ricinus communis</i>	Euphorbiaceae	Leaves dipped in seed oil, warmed over fire & bandaged over joints to relieve pain in rheumatism, Seed oil used to massage over joints, oil used to relieve constipation ³³ .
39	Zendu	<i>Tagetes erecta</i>	Asteraceae	Fresh flower paste applied on wound twice a day for 2-3 days. ²⁴
40	Sarpa-gandha	<i>Rauvolfia serpentina</i> (L.) Bth.	Apocynaceae	The powder of roots used for snake bite ⁴ .
41	Ajwan	<i>Apium-graveolens</i>	Apiaceae	Ajwan seeds are digestive, used as mouth freshner, cure acidity. ²³
42	Kavath	<i>Limonia acidissima</i>	Rutaceae	Leaf juice cures acidity. ²⁶
43	Gavel	<i>Argyrea sericea</i> . Lour.	Convolvulaceae	Root and leaves are taken to improve lactation. ²⁹
44	Dagad-phodi	<i>Boerhaavia diffusa</i> L.synb.repens.l	Nyctaginaceae	Plant decoction is taken to cure anemia and urinary troubles. ²¹
45	Bahava	<i>Cassia fistula</i>	Ceasalpinaceae	Gummy mesocarp of pod used to cure diarrhea ² and scabies. ²²
46	Vedi halad	<i>Curcuma inodora</i>	Zinziberaceae	Tuber paste is applied to relieve muscle pain. ²⁷
47	Jaswand	<i>Hibiscus rosasinensis</i>	Malvaceae	Flowers used to cure leucorrhoea. ³⁰
48	Mehandi	<i>Lawsonia inermis</i>	Lytharaceae	Leaf paste used for hair Treatment, Leaf powder paste applied on palm and sole to reduce body heat ¹⁷ .
49	Ashwa-gandha	<i>Withania somnifera</i>	Solanaceae	Root powder used as tonic, .. powder used to cure Menstruation problems. ²⁹
50	Unhali	<i>Tephrosia villosa</i> .L. [pers]	Fabaceae	Plant decoction used to cure skin diseases ⁹ .
51	Bhui-ringani	<i>Solanum virginianum</i>	Solanaceae	Fumes of ripe fruits are inhaled for toothache. ²⁸
52	karanj	<i>Pongamia pinnata</i> L. Pierre	Fabaceae	Seed oil used to cure scabies. Seed oil is mixed with pounded seeds of <i>Nyctanthes arborescens</i> L. and applied on the scalp ¹³ .
53	Amarvel	<i>Cuscuta reflexa</i> Roxb.	Cuscutaceae	Powder of the plant used to reduce the effect of poison in snake bite and scorpion bite ⁴ .
54	Mohari	<i>Brassica juncea</i> (L.) Czern. & coss.	Brassicaceae	Seed oil used for body massage. ²⁹
55	Khair	<i>Acacia chundra</i> (Roxb. Ex rottl.) Willd.	Mimosaceae	Stem bark powder mixed in coconut oil applied over wound ¹⁹ .
56	Bamboo	<i>Bambusa arundinaceae</i> (Retz.) Willd.	Poaceae	Root paste applied over wound for 2 days. ³¹
57	Sadaphuli	<i>Catharanthus roseus</i> (L.) G. Don	Apocynaceae	Leaves are used to treat diabetes ³⁴ .
58	Pangara	<i>Erythrina variegata</i>	Fabaceae	Leaf juice (1-2 drops) dropped in ear twice a day for earache. ³³
59	Kal lavi	<i>Gloriosa superba</i>	Liliaceae	Root paste mixed in one glass milk taken once a day for two days for stomachache ³² .
60	Hirda	<i>Terminalia chebula</i> Retz	Combretaceae	Fruit powder taken with milk to cure stomachache, Fruit paste applied on wounds ⁵

CONCLUSION

The results of this study can be useful to provide affordable, easily / locally available healthcare for the local people. We conclude that this treasure of traditional knowledge has tremendous potential. However due to lack of scientific documentation and validation, this traditional knowledge is not utilized to its true potential and is on the verge of extinction. Considering the applied value of traditional knowledge, it has

become necessary to scientifically document and validate this knowledge & make it available for future generations.

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