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Research Paper

SURVEY OF MEDICINAL PLANTS USED BY LOCAL PEOPLE OF GADHINGLAJ TAHSIL OF MAHARASHTRA

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Abstract

Survey of medicinal plants in Gadhinjlaj region was done by collecting the information from the experienced medicinal practitioners. In present investigation it is observed that the total 57 valuable plant species belonging to 36 families were identified with relevant information and documented in this paper with regard to their botanical name, family, common name, part used and utilization by the local people for common ailments. The medicinal practitioners were treating the common diseases like cough cold, piles, diabetes, Skin diseases, wounds, rheumatism, Hepatitis, fever, toothache etc.

Key words: Medicinal plants, Piles, Diabetes, *Calotropis gigantia*, *Centella asiatica*.

INTRODUCTION

The three basic needs of human beings i.e. food, clothing and shelter are fulfilled by the wild plants from ancient time. As the civilization progresses, man started utilizing the Plants as a source of medicine by his keen observations and knowledge. Still today a large part of rural population depends on forest products as part of their livelihood strategy. The traditional people have knowledge of medicinal uses of plants growing around them. This knowledge is handed down to generations through word of mouth and extensively used for the treatment of common diseases. The plants are safe, cheaper, easily available and with no fear of any side effects. Gadahinglaj has rich biodiversity consisting of a large number of plants, some of which are used for their medicinal value. It is evident that many valuable herbal drugs have been discovered by knowing that particular plant was used by the ancient folk for the treatment of some kind of ailment. In the present paper report on the information collected from traditional practitioners to curing various diseases in Gadhinglaj tahsil of district Kolhapur, Maharashtra.

STUDY AREA

Gadhinglaj tahsil situated on the bank of river Hirankeshi. The area is having many small hills and sacred groves with rich biodiversity. Gadhinglaj tahsil lies between 17° 20' North latitude and 73° 50' East longitude.

METHODOLOGY

Survey was carried out during the year 2013 in the areas of Gadhinglaj tahsil. Frequent visits to different localities helps in collecting the different plants and conversation with the local

traditional medicine practitioners truly helped in gathering an information on medicinal uses of the indigenous plants. Information on medicinal plants, local name, plant part used and mode of administration for curing diseases has been recorded. Plants collected during the surveys were identified with the help of Flora of Bombay (Cook,1908), Flora of Maharashtra (Almeida,1998), flora of Kolhapur district (Yadav and Sardesai,2002). The collected data contains the list of plants of different families with their plant parts used and mode of ailment.

RESULT AND DISCUSSION

Table-1 List of medicinal plants used by the local people in Gadhinglaj Tahsil

Sr. No	Botanical Name	Family	Local Name	Part Used	Uses
1	<i>Abrus precatorius</i> L.	Fabaceae	Gunj	Leaves	Leaf Chewing in case of Appetizer and Mouth ulcer
2	<i>Abutilon indicum</i> (L) Sweet	Malvaceae	Karandi / Mudra	Leaves	Eat the four to five leaves for regularity in menstrual cycle. The ten to fifteen leaves Karandi leaves (<i>Abutilon indicum</i>) and Shendvel (<i>Euphorbia tirucalli</i>) are eaten and intake of one glass of buttermilk in case of piles
3	<i>Accacia nilotica</i> (L) Willd. ex Del	Mimosaceae	Babhul	Leaves, Tender shoot	Use like brush in case of tooth pains or toothache
4	<i>Acorus calamus</i>	Araceae	Vekhand	Rhizome	In case of headache the equal amount of <i>Acorus</i> and <i>Zingiber</i> rhizome pounded in paste and applied on head.
5	<i>Adiantum lunulatum</i> Burm.	Adiantaceae	Morpisi	Leaves	Leaves are taken in case of white discharge of women
6	<i>Aegle marmelos</i> L.	Rutaceae	Bel	Leaves	Crushed leaves applied on knee joint pain One leaf of <i>Aegle</i> chewed with <i>Piper betle</i> pouch in day in case of illness or sickness
7	<i>Agave angustifolia</i> Haw.	Agavaceae	Ghaypat	Leaves	Leaves extract externally applied in case of pimples and skin diseases.
8	<i>Allophylus cobbe</i> (L)	Sapindaceae	Hadsandhi	Stem bark	Equal amount of Powder of Hadsandhi

	Raeusch				(<i>Allophylus cobbe</i>) stem bark and Finger millet (<i>Eleusine coracana</i>) flour boil in same quantity of water and used on swelling body and rheumatism
9	<i>Aloe vera</i> (L) Burm.f.	Liliaceae	Korphad	Leaves	Leaf is warm in fire and then inner portion eaten with small amount of sugar in case of Stomachache, latex is used to remove dead skin.
10	<i>Andrographis paniculata</i> (Burm.F.) wall	Acanthaceae	Kadechirayat	Leaves Tender shoot	Smell the leaves or shoot in case of fever.
11	<i>Atriplex hortensis</i> (L)	Chinopodiaceae	Chandanbatva	Leaves	Equal amount leaves of Chandanbatava (<i>Atriplex</i>) leaves and Alu (<i>Colocasia</i>) leaves extracted one cup of juice and taken at morning for total cover of piles/ not use for children
12	<i>Barleria cristata</i> var. <i>dichotama</i> L.	Acanthaceae	Pandhari Koranti	Leaves Flower	Chewing the leaves in tooth pain and mouth diseases Cooked flower juice is used in mouth diseases
13	<i>Basella alba</i> L.	Basellaceae	Pittache pan	Leaves Seed oil	Leaves are eaten in case of all type of acidities, omitting Seeds cooked with rice and eaten in fever
14	<i>Bauhinia racemosa</i> Lam.	Caesalpinaceae	Apata	Leaves	One leaf chewing can cure cough
15	<i>Butea monosperma</i> L.	Fabaceae	Palas	Fruit Leaves Flower	Fruit juice with honey taken for intestinal worms The leaves extract used for curing urine stone The flower of <i>Butea monosperma</i> used in case of diabetes
16	<i>Caesulia axillaris</i> Roxb.	Astraceae	Maka	Leaves or tender shoot	Extract of leaves is used to cure cough, it

					is also used in hair oil in case of dandruff
17	<i>Calotropis procera</i> (L) R.Br	Apocynaceae	Rui	Latex Leaves	One drop of latex mix with one cup of curd and serve in one time in week in case of Piles (hemorrhoid) Green leaves ash or latex used to remove thorn from leg or heel
18	<i>Cassia fistula</i>	Fabaceae	Bahava	Leaves	Two leaves with alum chewed or take in teeth in case of tooth pain
19	<i>Cassia tora</i> L.	Caesalpinaceae	Kali takali	Tender shoot	The young shoots are packed in copper pot or iron pot at night and in morning these are cooked in rice and eat in case of rheumatism
20	<i>Celastrus paniculata</i> Willd	Celastraceae	Jyotismati	Seed oil	One drop of oil daily in nose to increase brain power and capturing capacity
21	<i>Clerodendrum serratum</i> (L)Moon.	Verbenaceae	Ran Bhangira, bharangi	Stem bark	Stem bark of <i>Clerodendrum serratum</i> , <i>Mangifera indica</i> and <i>Syzygium cumini</i> taken in case of snake bite, antidote in poison and also in apatite
22	<i>Colocasia esculanta</i> (L.) Schott	Araceae	Alu	Leaves	Half leaf eat with curd in case of Hepatitis B
23	<i>Costus speciosus</i> (Koen) J.E. Smith	Zingiberaceae	Katekoisara	Leaves	Leaves paste or extract apply externally to remove thorn from leg or heel
24	<i>Cryptolepis buchananii</i> R.Br.ex R. & S.	Periplocaceae	Kavali	Leaves	Ash of green leaves mix in coconut oil and applied on Piles (hemorrhoid)
25	<i>Curcuma longa</i> L.	Zingibaraceae	Halad	Rhizome	Half part of Halad powder (<i>Curcuma longa</i>) and one part of alum powder mix it and boil in equal amount of water and paste on the swelling or oedma and edematous

26	<i>Cynodon dactylon</i> (L) Pers.	Poaceae	Harali	Stem with leaves	Rice and Harali (<i>Cynodon dactylon</i>) soaked in water for twelve hour then pounded in to paste and applied on herpes zoster
27	<i>Derris scandens</i>	Fabaceae	Garudvel	Leaves and stem	Leaves and stem are used for the protein and blood purification
28	<i>Dodonea angustifolia</i> L.f.	Sapindaceae	Bandukicha Pala	Leaves	Crushedleaves applied on knee joint pain
29	<i>Dolichandron e falcate</i> (wall. Ex DC.)	Bignoniaceae	Medshingi	Leave or tender shoot	Leaves extract or chewing the leaves in case of intestine blot and diarrhoea
30	<i>Eupatorium odoratum</i> L.	Astraceae	Ranmadi	Leaves	The extract applied on the white patches of skin
31	<i>Ficus racemosa</i> L.	Moraceae	Umbar	Latex	Latex used for curing mumps
32	<i>Hibiscus esculantus</i>	Malvaceae	Bhendi	Fruits	Soaked in water overnight and one cup of extract taken in case of dibeties
33	<i>Hygrophila schulli</i> (Buch-Ham)	Acanthaceae	Talimkhana	leaves	Leaves extract used as poison antidote
34	<i>Jatropha curcus</i> L.	Euphorbiaceae	Mogali Erand	Tender shoot latex	Chewing the tender shoot and use like brush in case of tooth pains (don't drink the extract after chewing) applied on injury and It also used to wash tooth in case of loosing teeth
35	<i>Justicia adhatoda</i> L.	Acanthaceae	Adulsa	Leaves	In morning firstly eat the four leaves of Krishna tulasi and then chewing the Yellow or ripe leaf of Adulsa curing the cough Equal amount of Adulsa, maka, Krishna tulas leaves extract taken in case of cold and cough One teaspoon leaves extract with one

					teaspoon of honey used in case of asthma
36	<i>Kalanchoe pinnata</i> (Lamk) Pers.	Crassulaceae	Panfuti	Leaves	Leaves are eaten to avoid Urine stone formation. Crushed leaves are used in case of wound healing
37	<i>Lantena camera</i> L.	Verbenaceae	Ghaneri	Leaves	Four leaves of both plant <i>Vitex</i> and <i>Lantena</i> chewing in case of stomach ache
38	<i>Lawsonia inermis</i> L.	Lythraceae	Mehandi	Leaves	Pounded leaves applied on leg heat and heel cracks
39	<i>Madhuka longifolia</i> (Koen) Macbr	Sapotaceae	Moh	Stem bark	Two centimeter of stem bark powder soaked in water for twelve hour and at the morning one glass of soaked water mix with pinch of white pepper powder and Cumin seed powder taken in a day in case of urine stone. Sixty doses taken case of kidney stone while three times in case of urine stone. These mixture or medicine taken only one time in week. Before taking of any food and water
40	<i>Mirabilis jalapa</i> L.	Nyctaginaceae	Gulmus	Root or rhizome	Rhizomes are eaten for curing skin diseases
41	<i>Mucuna pruriens</i> (L) DC	Fabaceae	Khaj-khujali	Seed	Seed is used in case of weak people
42	<i>Ocimum americanum</i> L.	Lamiaceae	Ran Tulas	Leaves	One to two teaspoon leaf extract taken and extract externally applied on nose and head in case of cold
43	<i>Ocimum tenuiflorum</i> L.	Lamiaceae	Krishna Tulas	Leaves	Ten to fifteen leaves are taken in case of cough, cold and fever
44	<i>Piper betle</i> L.	Piperaceae	Khauche Pan	Leaves	Five pouch of betal leaves and one cm slice of alum and one cm slice of Alu root (<i>Colocasia esculanta</i>)

					one by one at time in day for complete cure of pile
45	<i>Pongamia pinnata</i> (L) Pierre.	Ceasalpinaceae	Karanj	Root (broad) Root (small or finger like) Seed oil	The root is pounded in to paste in the goat milk and apply to remove thorn Half teaspoon fine powder of dry root mix in water and drink in one time in day in skin diseases. Also in case of mice bite two to three teaspoon in day Seed oil externally use in skin diseases Seed oil also used in case of hair fall, whitening of hair and for long hair
46	<i>Psidium guajava</i> L.	Myretaceae	Peru	Ripen fruit	Ripen fruit cut from center and cover with Alum powder then after twelve hour eat for piles
47	<i>Ruta chalepensis</i> L.	Rutaceae	Satapa	Leaves	Smell the leaves in case of fever
48	<i>Santalum album</i> L.	Santalaceae	Chandan	Leaves	Dry the leaves in shade condition and then mix with equal amount of soncow soil. These mixture taken two time in day to cure Hepatitis A, Four leaves chewing in a day in case of fever
49	<i>Semecarpus anacardium</i> L.f.	Anacardiaceae	Bibba	Seed	In case of half headache the seed is smash with help of needle and seed oil smear on the eyebrows. Smash the seed of <i>Semecarpus</i> and take in cup of milk and add pinch of halad and boil. These are used in case of diabetics , cough, stomach

					diseases
50	<i>Spilanthus oleraceae</i> L.	Astraceae	Akkalkara	Inflorescence	It is used to increase brain power
51	<i>Sterculia urens</i> Roxb.	Sterculiaceae	Bhutya	Leaves	Green leaves dried in shade condition and make the powder these are applied on injury
52	<i>Syzygium cumini</i> (L)	Myrtaceae	Jambhul	Stem bark	Stem bark of <i>Clerodendrum serratum</i> , <i>Mangifera indica</i> and <i>Syzygium cumini</i> taken in case of snake bite, poisonous infection and also in apatite
53	<i>Tamarandus indica</i> L.	Caesalpinaceae	Chinch	Stem bark	Equal amount of both plant <i>Tamarandus indica</i> and <i>Ficus racemosa</i> stem bark powder mix in coconut oil and applied on just burned skin with help of feathers of hen
54	<i>Tinospora cordifolia</i> (Willd.) Miers ex Hook.f. & S	Menispermaceae	Gulvel	Stem	The boiled or cooked stem extract is used in case of body hit Two centimeter of stem with one teaspoon of aloe vera juice taken for curing swine flue
55	<i>Vitex negundo</i> L.	Verbenaceae	Nirgudi	Leaves	Nine leaves extract taken for cough and cold and externally used for freshness and in fever
56	<i>Wrightia tinctoria</i>	Apocyanaceae	Kala-kuda	Leaves	Leaves extract used in case of eyes white spot
57	<i>Zingiber officinale</i>	Zingiberaceae	Aal, Aadrk, ginger	Rhizome	The pounded rhizome with milk is used in case of cough and skin diseases

The present study revealed that the local people of Gadhinglaj tahsil, Maharashtra, India were using 57 species of medicinally important plants belonging to 36 families. These are herb, shrub, climber, small and large trees. These plants are common and medicinally important to treat various diseases like cold, cough, fever, diarrhea, skin diseases, toothache, Hepatitis, antidote for poison, poisonous bite, jaundice and wound. This is constant with the other general observation which has been reported earlier in relation to medicinal plant studies by the Indian Traditional

System of Medicine like Siddha and Ayurvedha (Kirtikar and Basu, 2001; Gogte, 2000). The local people of Gadhinglaj tahsil preferred preparing the medicines by plants either as single or as in a combination with two or several plants and plant parts, since the combination rapidly cures the diseases and also enhance the immunity power of the patients. Different type of preparation made from medicinally important plants including juice, powder, oil, paste and whole plant extract. The medicinal recipes vary depending upon the kind of disease condition and method of administration. In some cases different plant parts of the same species are employed to treat the same disease condition e.g. leaves or flower of *Barleria cristata* tooth pain and mouth diseases. While in some cases same plant parts of the different species are employed to treat the different disease conditions e.g. Stem bark of *Clerodendrum serratum*, *Mangifera indica* and *Syzygium cumini* taken in case of snake bite, antidote for poison, poisonous infection and also in apatite. Kaushik *et al* (2009) documented the *Abutilon indicum* is the beneficial effects as sweet, cooling, digestive, laxative, expectorant, diuretic, astringent, analgesic, anti-inflammatory, anthelmintic, demulcent and aphrodisiac and verify the efficiency of the plant through scientific biological screening of that plant. The leaves and stem bark are two major plant parts which are frequently used for the treatment of diseases by the local people of Gadhinglaj. External applications prepared from medicinal plants used to cure many diseases like wounds, poisonous bite, joint- pain, headache, piles and skin diseases etc. Oral consumption involves curing fever, cold, cough, apatite, antidote for poison. On the observation and discussion it was found that all the traditional healers were getting the knowledge from those fathers, they are also found interested in acquisition of knowledge from others. In present work *Kalanchoe pinnata* used against urinary stone and leaves are used to cure wound healing similar uses reported by Patil and Patil (2011) from Buldhana district. Root paste of *Pongamia pinnata* applies to remove thorn and fine powder useful in skin diseases. While Bhosle *et.al.*(2009) were reported seed oil of *Pongamia pinnata* used against in whooping cough. The above observation and finding reveals that majority of people depends on natural plant resources for their daily needs.

CONCLUSION

The survey revealed that the Gadhinglaj tahsil is rich in medicinal plant diversity .The local medicinal practitioners make use of these medicinal plants in curing of many diseases. It has been observed that the use of the medicinal plants is also a routine practice in the local people.

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