



Investigation of Ethano Medicinal Plant used by Banjara Tribe in Mantha Tahasil, District Jalana, Maharashtra

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ABSTRACT

Ethnomedicinal surveys can potentially bring out many different clues for the development of safe, effective and inexpensive indigenous remedies. Present study has been focused on Banjara tribe of Mantha tahasil district Jalana of Maharashtra, India. Banjara tribes in this area have been using number of plants in their traditional medicine. The ethnomedicinal survey brought to light 51 medicinal plants belonging to 32 families distributed in 23 genera used very commonly by this Tribe. The different plant parts like stem, leaves, fruit, flower, bark, root, seed and pod were used by this tribal community. The plants were identified with relevant information and are documented with their botanical name, family, local name, parts used, mode of preparation and uses. Documenting the indigenous knowledge through ethnobotanical studies is important for the conservation and utilization of biological resources and for the welfare of human being..

KEYWORDS: Ethnomedicinal plants, Banjara Tribe.

INTRODUCTION

Most Medicinal plants have become a worldwide topic drawing an impact on world health. Herbal medicine has played a crucial role in the maintenance of the healthcare system of the wide population throughout the world (Akerele, 1988). This is majorly enhanced in less-developed or developing countries, where the history use of traditional medicine interrupted. The knowledge and the progress of the medical benefits of plants have grown in both, developing and developed countries (Ulla, *et.al.*, 2020). Medicinal plants are the backbone of the traditional medicine; this means that, 3300 million people in the underdeveloped countries utilize medicinal plants on a regular basis (Dobriyal and Narayana, 1998). In spite of enormous progress in modern medical system, about

80% of the world population still depends on traditional systems of medicine for primary health care, which is true in Indian scenario also (Upadhyya, *et.al.*, 2012).

India is the largest producer of medicinal plants and is rightly called the "Botanical garden of the World". The medicinal plants, besides having natural therapeutic values against various diseases, also provide high quality of food and raw materials for livelihood (Umadevi, *et.al.*, 2013). In India, it is reported that traditional healers use 2500 plant species and 100 species of plants serve as regular sources of medicine. Traditionally all medicinal preparations were derived from plants, whether in the simple form of plant parts or the more sophisticated way of crude extracts, mixtures, etc. Crude herbal formulations claimed to have major medicinal benefits with or without additives

(Beldar and Sidat, 2020). The modern medicines are evolved from folk medicine and traditional system of medicine (Wankhade and Mulani, 2015).

An ethnobotanical study takes into account knowledge of the tribes and the people inhabiting the area, with particular reference to their distribution, language/dialect spoken, food habit, rituals and practices, traditional practices followed in agriculture, house building, art and craft objects made out of plant products, etc. An ethnobotanical study of the area, therefore, aims at to cover under its purview the whole gamut of information about plants namely plants used as medicine, food, building materials, rituals, festivals, etc. (Murtem and Chaudhry, 2016). Ethnobotany is the field of science that deals with the associations between plants and humans. An ethnobotanical survey encompasses discussion with local natives, use of accessible data in the literature, and the folklore of each area. Documentation of indigenous medicinal knowledge of plant species has contributed to a number of modern drug formulations for basic healthcare (Upasani, *et.al.*, 2017).

Traditional medicines are cheaper, with minimal side effect and safe (Wankhade and Mulani, 2015). To ensure the safety of its products and practices standardization is of vital importance. The knowledge of medicinal plants came from our ancient literature such as Vedas. More over in the Indian system of medicine, most herbal practitioners formulate and dispense their own recipes; this requires proper documentation and research (Tambekar and Khante, 2010).

Banjaras are distributed in many states of India like Rajasthan, Gujarat, Madhyapradesh, Maharashtra Andhra, Orissa, Karnataka, Tamil Nadu, etc. The unique community life, language, religious customs, festivals, and ceremonies marked the socio-cultural life of Banjaras. Predominantly Banjara maintained a unique and separate tribal identity. Hence attempt was made to search ethnomedicinal plant used by Banjara tribe in Mantha Tehsil, District Jalana, Maharashtra.

MATERIAL AND METHODS

1. Study area

The study area of Mantha tehsil is about 65 km from Jalana, the district headquarters and is located between 19.6509093 Latitude and 76.3474106 Longitude.



2. Ethnobotanical Survey

The ethnobotanical survey was conducted in the tribal localities of Mantha tehsil district Jalana in the year 2017-2018. The study areas, was based on the Banjara tribe population in the tehsil. The ethnobotanical information in present work was obtained through the method such as field studies, personal interview and literature survey etc. The collection of data in the study area through personal interview with the Banjara tribes for the documentation a questionnaire was prepared.

3. Identification medicinal plants

The medicinal plants were collected, identified according to their external morphology, habitat and floral characteristics by using standard floras (Naik, 1998; Yadav, and Sardesai, 2002). The data was recorded in table format and digital photographs.

RESULT AND DISCUSSION

Traditional medical knowledge of medicinal plants and their use by indigenous cultures are not only useful for conservation of cultural traditions and biodiversity but also for community healthcare and drug development in the present and future (Korpenwar, 2012).

The results of the survey are presented in Table No. 1 and it contains botanical name, family, vernacular name, part use, medicinal use and doses. The present survey comprises 51 species of ethno- medicinal plants belonging to 32 families distributed in 23 genera used very commonly by Banjara Tribe. The different plant parts like stem, leaves, bark, root, fruits, pod and flower were used by this Tribe (Fig.no.2). It was observed that most of the traditional practitioner belongs to the older generation of age group 50 and more. The respondents of age group 18-30 years had little knowledge about

medicinal plants. This indicates a decline in knowledge of the use of medicinal plants that pose a potential disappearance of this ancestral knowledge in the future.

Fig.No.1-Different habit of medicinally important plants identified in Mantha Tahasil.

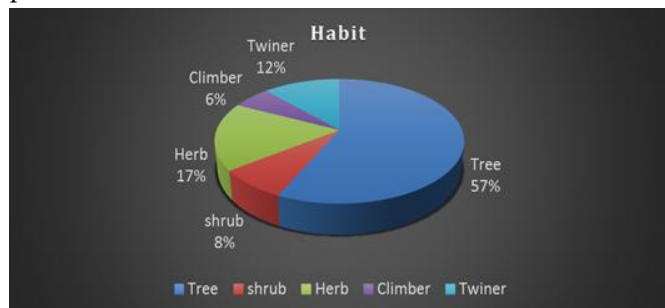
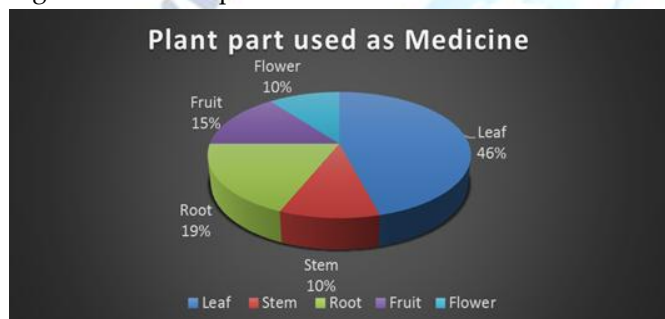


Fig. No. 2 – Plant part used as medicine



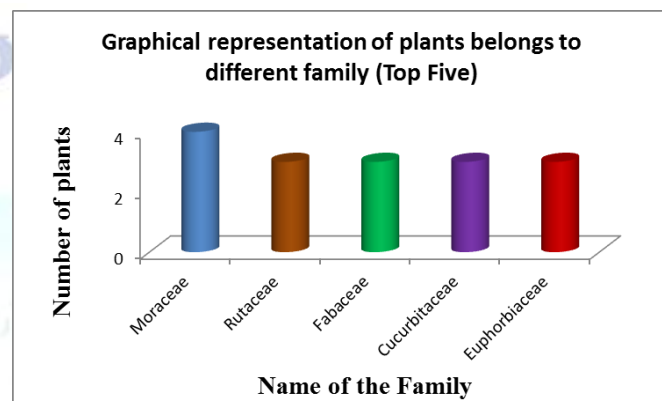
The above information is the outcome of the questionnaires and interviews in Mantha taluka of the Jalana District. The information was gathered from the Banjara Tribe people use medicinal plants in everyday life. Banjara tribe of Umardhrd taluka, district Yavatmal Maharashtra are reported to use 22 formulation using 39 plants species for practicing in reproductive disorder (Bhogaonkar and Kadam, 2006). Previous report on ethnobotany shows the presence of numerous ethnomedicinal plants used by the tribal communities (Samar,

Table No.1 - Medicinally important plant Documented from Mantha Tehsil

Sr. No	Plant Name	Family	Vernacular Name	Part Use	Medicinal Use	Doses
1	<i>Acacia catechu</i> (Rox. ex Rottl.) Willd.	Mimosaceae	Khair	Stem Bark	Stomach problem	Bark powder sock in cup of water put it overnight and use in morning once in a week
2	<i>Acacia nilotica</i> (L.)Del.	Mimosaceae	Babul	Leaf	Mumps	Leaf pest is applied on affected area to reduce swelling and pain
3	<i>Achyranthus apera</i> L.	Amaranthaceae	Aghada	Leaves	Kidney stone	Leaf juice twice in a day for one month
4	<i>Aegl marmelos</i> (L.)Corr.	Rutaceae	Bel \ Bila	Fruit pulp	Stomach problem/ constipation	Fruit pulp one table spoon once in a day for 7 days
5	<i>Aloe-vera</i> (L.)	Liliaceae	Kuwari	Leaf	Constipation	Leaf juice taken in early

et.al.,2015; Chekole, 2017; Korpenwar, 2012). It is reported that more than 6,000 higher plant species are estimated to be used in the codified and folk healthcare traditions in the country (Ved and Goraya, 2007).

Fig. No. 3 – Graphical representation of plants belongs to different family



CONCLUSION

The present study revealed that the exploration of ethnomedicinal plants in of Banjara Tribe in Mantha Tahasilof Jalana district. The tribal of study area have adequate ethnomedicinal knowledge which has been transmitted from one generation with some extend. The present survey is to recorded or documented the ethnomedicinal knowledge of the Banjara tribe. However, to prove investigations are essential for optimum utilization. Documentation of such plants from the perspective of ethnobiological angle is important for the understanding of indigenous knowledge systems. These resources are genetically important for future research.

	Burm.f.,				Skin disease and pimples	morning to cure Constipation once in a day for a week. Leaf pulp apply on face
6	<i>Annona squamosa</i> L.	Annonaceae	Sitafal	Seed leaves	Anti lice	Seed or leaf powder boil in cocunut oil and used for a week
7	<i>Azadirachta indica</i> A. Juss	Meliaceae	Neemda	Stem bark, leaves	To healing wounds, fever	Bark is mixed with bark of <i>Terminalia arjuna</i> in coconut oil and apply on wounds thrice in a day, half cup of leaves juice once in a day
8	<i>Balanites aegyptiaca</i> (L.) Del.	Balanitaceae	Hinganbet , hingora	Seed	Stomach pain in child	2gm of outer seed bark powder with water
9	<i>Butea monosperma</i> (Lamk.) Taub.	Fabaceae	Kesula/ palas	Flower Bark root, seed	For energy, fever, Rhumatisum	Dried flower mixed in water add sugar used heat shock in summer. Roots pest apply o joints
10	<i>Caesalpinia bonduc</i> (L.)Roxb.	Caesalpiniaaceae	Sagargota	Leaves seed	Piles , stomach problem	1) One cup leaf juice +one glass buttermilk twice in 15 days 2)inner part of seed with piper bittle leaves at early morning for three days
11	<i>Calotropis gigantean</i> (L.) R.Br	Aclepideaceae	Pandhari rui \ Aak	Flower Ripen Leaf	Head ache Ear problem deafness	Take One to two flowers in leaves of piper betel at early morning. Leaf juice use as eardrop
12	<i>Carica papaya</i> L.	Caricaceae	Papai	Leaves	To increase the platelets in dengue fever	2 table spoon of leaf juice at early morning
13	<i>Cassia fistula</i> L.	Caesalpiniaaceae	Ramdada	Pod pulp	Stomach pain	2ml pod pulp thrice in a day
14	<i>Cissus quadrangularis</i> L.	Vitaceae	Hadjod	Stem	Bone fracture	Stem pest apply on fracture bone
15	<i>Cissus vitiginea</i> L.	Vitaceae	Zinjota	Root	Urinary problem	Root extract (50gm of bark in one cup of water) use thrice in a day
16	<i>Cucurbita maxima</i> Duch. ex Lamk	Cucurbitaceaea	Kohada	Root	Kidney stone	Root extract three times in a day for 15 days
17	<i>Cymbopogon martini</i>	Poaceae	Gawati chaha	Leaves	Malaria	Leaves decoction used twice in a day
18	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Harad	Leaves	Menstrual problem	Leaf juice 2 table spoon once in a day for one month
19	<i>Dalbergia sisso</i> Roxb. Ex DC.	Fabaceae	Sisam	Stem bark and leaves	ENT problems	Leaf juice use as a drop
20	<i>Daucus carota</i> L.	Apiaceae	Mula	Root	Piles	Root crush in mineral salt once in a day
21	<i>Diplocyclas palmatus</i> (L.)Jeffrey	Cucurbitaceae	Shivpindi	Seed	Fertility	Half tea spoon of seed powder tak a once a day for 12-15 days for fertility
22	<i>Dolichandrone falcata</i> (Wall. Ex DC.) Seem.	Bignoniaceae	Medshing	Leaves	Piles , scorpion bite	Crushed leaf pest in butter
23	<i>Ficus benghalensis</i> L.	Moraceae	Wad	Leaf latex, roots , leaf buds	Use in impotency in male, for healthy hair, stomach problem	Milky latex in leaf used with battasha at early morning for 45 days , prop roots boil in coconut oil and apply on hairs, dried leaf buds sock in water and drink at early morning
24	<i>Ficus carica</i> L.	Moraceae	Anjir	Fruit	Asthma	Drink Fruit juice in the morning for a month
25	<i>Ficus racemosa</i> L.	Moraceae	Umbar \Gullar	Roots Leaf	Urinary problem Mums	Root extract mixed with table sugar thrice in a day. Roasted leaf externally apply on swelling cheek and throat
26	<i>Ficus religiosa</i> L.	Moraceae	Pimpal	Dried leaves	Epilepsy	Dried leaves sock in a water over night and drink twice in a day for 15 days
27	<i>Helicteres isora</i> L.	Sterculiaceae	<i>Gol weldi</i>	Legume	Stomach pain	Legume is rubbed with

				(fruit)		water and given to infants in case of stomach pain.
28	<i>Hemidesmus indicus</i> (L) R.Br	Apocynaceae	Kawalir-jad	Root	Liver problem	Root decoction taken in liver swelling and inflammation
29	<i>Jasminum officinale</i> L.	Oleaceae	Chameli	Leaves	Mouth sour	Chew the leaves for three time in a day
30	<i>Limonia acidissima</i> L.	Rutaceae	Kawath	Fruit	Teeth ache	Fruit juice drink for 15 days
31	<i>Mangifera indica</i> L.	Anacardiaceae	Amba	Leaf	Vomiting	Decoction of leaves twice in a day for two days
32	<i>Momordica charantia</i> L.	Cucurbitaceae	Karela	Fruits	Liver problem and piles	One cup fruit juice mixed in one glass of water once in a day for one month
33	<i>Moringa oleifera</i> Lamk.	Moringaceae	Shewga	Leaves	Illusion	Decoction of leaves for six month twice in a day
34	<i>Muconia pruriens</i> (L.)DC.	Fabaceae	Khajkhujali	Seed	Menstrual problem	Decoction of seeds is used to regularize menstrual cycle
35	<i>Murraya koenigii</i> (L.)Spreng.	Rutaceae	Kadipatta	Leaves	Heart disease	One cup leave juice mix with hot water for three days in month
36	<i>Nyctanthes arbor-tristis</i> L.	Oleaceae	Parijatak	Flower	Fever	Flower juice apply on body for 3-4 day twice In a day
37	<i>Oscimum basilicum</i> L.	Lamiaceaea	Sabja	Leaves and roots	Intestinal problem	Leaves and root crush and make a pest and take it with honey thrice in a day for 15 days
38	<i>Pergularia daemia</i> (Forsk.) Choiv.	Euphorbiaceae	Utaran	Root	Fever	Root pest apply on the belly twice in a day
39	<i>Phyllanthus emblica</i> L.	Euphorbiaceae	Awala	Stem bark	Leucoderma	Bark powder sock in water and drink at morning
40	<i>Polyalthia longifolia</i> (Sonner.)Thw.	Annonaceae	Ashok	Bark and flower	Diabetes	Bark powder and flower pest take with honey for one month
41	<i>Psidium guayava</i> L.	Myrtaceae	Peru	Leaf	Strengthening of gums and gum swelling	10-15 leaves boil in 1\2lit water and decoction used for gargling twice in a day for week
42	<i>Punica granatum</i> L.	Punicaceae	Dalimb	Flower buds	Nasal polyp	Bud juice dropped in to nose twice in a day
43	<i>Ricinus communis</i> L.	Euphorbiaceae	Erandi	Leaves	Eye infection	Leaf juice Three times in a day for four days
44	<i>Sapindus emarginatus</i> Vahl.	Sapindaceae	Ritha	Pericarp of Fruit	Healthy hair	Fruit power used as a shampoo to wash hair
				Seed powder	For vomiting	Orally seed powder given to cause vomiting in case of poison intake.
45	<i>Spilanthes clava</i> DC.	Asteraceae	Akkalkara	Flower	Cough asthma	Crush and Chewing the flower twice in a day
46	<i>Syzygium cumini</i> (L) Skeels.	Myrtaceae	Jambhul\jambhu	Leaf	Dental problem	Leaves chewing two times in a day for 1 week
47	<i>Tagetes erecta</i> L.	Asteraceae	Zendu	Leaves	Mouth sour	Chew 2-3 leaves for three time in a day
48	<i>Terminalia bellirica</i> (Gaertn) Roxb.	Combritaceae	Behada	Fruit bark	Cough & cold	Small half tea spoon of Bark powder once in a day
49	<i>Tinospora cordifolia</i> (Willd.) Miers	Menispermaceae	Gulvel / giloi	Stem and petiole	Malaria	Juice of crushed stem and petiole use once in a day
50	<i>Woodfordia fruticosa</i> (L.) Kurz.	Lythraceae	Dhayati	Flower	Leucoderma and uterine problems	Dried flower powder (5gm) with honey given to female once a day for one month
51	<i>Ziziphus jujube</i> Lamk.	Rhamnaceae	Bor	Fresh leaves and bark	Strengthening of gums and gum swelling	25-30 leaves boil in 1\2lit water and decoction used for gargling twice in a day for week. Bark powder apply on gums twice in a day

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