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Short Communication

Documentation of Some Ethno-medicinal Plants of Family Lamiaceae in Bankura District, West Bengal, India

Sinhababu Arijit and Banerjee Arpita
Department of Botany, Bankura Christian College, Bankura, West Bengal, INDIA

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Abstract

The present research paper documented potential ethno-medicinal plants of family Lamiaceae, which are being used frequently and over the years by tribals of Bankura distric for their health care. This information's are based on exhaustive surveys, interviews during the year 2010-2011 in the tribal inhabited area. Results of survey showed that within the family Lamiaceae, 13 species belong to 8 genus are in common practice in the traditional system of health care. The documented medicinal plants were mostly used as carminative, stimulant, stomachic and antiseptic, also useful in asthma, epilepsy, dyspepsia, common cold and cough.

Keywords: Bankura, Ethno-medicinal plants, Lamiaceae, Tribals.

Introduction

Lamiaceae, the alternative name of Labiatae, the mint family of is one of the largest families among dicotyledons represented with about 220 genera and more than 4,000 species worldwide[1]. Most members of the family have quadrangular stems; leaves simple; opposite decussate, the flowers are zygomorphic, bisexual and bilabiate, calyx are gamosepalous; sometimes campanulate, androecium consist of either four didynamous stamens or only two stamens that are adnate to the corolla tube i.e. epipetalous, alternate with the lobes; gynoecium consist of a single compound ovary consist of two carpels which are apparently form deeply four lobed structure, hypogynous, style gynobasic and fruit carcerule type. This family is important for flavour, fragrance or medicinal properties. Many plants belong to this family have indigenous value. Study of traditional or folk medicines of tribals is called ethno-medicine[2]. The Indian region is very rich in ethno-botanical heritage due to its rich cultural diversity[3-7]. Rig Veda is one of the important earliest available documents which emphasize about herbal medicinal knowledge. Later on Indian herbalists such as Maharshi Charaka and Sushruta made use of the importance of medicinal plants for curing various diseases. But during the past one century, there has been a rapid extension of allopathic medicinal treatment in India but still now the use of natural products as medicine, especially plant products are widely used in the societies of various rural tribal people particularly in the remote areas of West Bengal with few health facilities[8-19]. Aim of this study to introduce of medicinal species of Lamiaceae family in Bankura district of West Bengal.

Methodology

All the plant samples in this research, belong to Lamiaceae family, were gathered from Bankura district which is the westernmost district of West Bengal. The adjacent districts are Bardhaman in the north, Purulia in the west and Paschim Medinapur in the south. The geographical location of Bankuraisin between 22º 38′ and 23º 38′ North latitude and between 86º 36′ and 87º 46′ East longitudes. According to census (2001), 10.36% among the total tribal population are resides in Bankura and ethnomedicinal practice is very common among the tribes. The tribal communities in this area are mainly Santal, Lohar, Bhumij, Lodha, Mahali and Sabar. Information on folk-medicinal use of plants was obtained through oral interviews. The survey was carried out during the year 2010-2011 in the tribal inhabited area of Khatra subdivision. The ethno-botanical data were obtained from tribal people, Vaidyas, Ojhas, local herbal drug sellers and the information collected from the available literature. A total of 235 inhabitants of the tribal communities were interviewed, randomly people were selected of which 187 men and 48 women of age 45 and above. Plant specimens were collected from the study area and identified following the standard taxonomic methods, authenticated and kept in the herbarium of the institute.

Results and Discussion

Enumeration of different plant species are given in table 1.

Results of survey showed that within the family Lamiaceae, 13 species belong to 8 genuses are in common practice in the traditional system of health care in this Khatra Subdivision of Bankura district. All the plants mentioned in this study are very popular among the tribal communities of Bankura and *Ocimum* genus of the family Lamiaceae was the dominant genus followed by *Coleus* and *Mentha*. The documented medicinal plants were mostly used as carminative, stimulant, stomachic and antiseptic, also useful in asthma, epilepsy, dyspepsia, common cold and cough. The medicine varies according to the

symptoms and with the tribe and place. It means that a particular plant is sometime prescribed for different ailments in different localities and sometimes they apply a mixture of plants for remedy of diseases.

Table-1

Scientific name	Vernacular name	Uses
Anisomeles indica **(L.) Kuntze**	Gopali, Gobura	Whole plant extract used as carminative, astringent and tonic. Oil from leaves used in uterine infections. Root boiled with milk is taken to cure mouth abscess. Leaf juice is given to the children in fever & whooping cough.
Coleus amboinicus **Lour**	Patharchuur, Lalimusli	Leaves extract used as carminative, to treat urinary diseases (especially in difficult urination or in burning pains during and after urination), vaginal discharges, asthma, chronic bronchitis, epilepsy; juice mixed with sugar given to children to treat colic and dyspepsia. It also stimulates the function of liver.
Coleus aromaticus **Benth.**	Karpuravalli	the leaf juice is used for the treatment of headache, fever, epilepsy and dyspepsia. The decoction of the leaves is administered in the case of chronic cough and asthma.
Hyptis suaveolens **(Linn.) Poit.**	Bilatitulasi	Whole plant extract used as carminative, stomachic and stimulant; also useful in uterus affections. Root extract used as appetizer; fresh roots chewed with betel nuts to cure stomachic. Leaves juice used in colic. Flowerings shoot extract used as rheumatic, antispasmodic and also useful to treat paralysis.
Leonotis nepetaefolia **(L.) R. Br.**	Bhutbhairab	Leaves decoction is used as tonic and spasmolytic. Inflorescence as well as flower heads mixed with cold coconut oil is foundvery useful against burns and scalds; mixed with card applied to ringworms and other skin diseases.
Leonurus sibiricus **L.**	Raktadrone	The herb is used to treat loss of potency in men, painful menstruation in women, useful towards uterus contraction & as a diuretic.The leaf paste can be applied externally to treat rheumatism or arthritis. The root and leaves are used as febrifuge.
Leucas cephalotes **(Roth.) Spreng.**	Bara Halkasha, Gouthi	Whole plant extract used as stimulant, diaphoretic, antiseptic; juice externally applied in scabies. Flowers juice with some salttaken orally is very helpfulin cough and colds. Dry leaf along with tobacco (1:3) is smoked to treat bleeding as well as itching piles. Leaf extract is also used as inflammatory.
Mentha longifolia **(L.) Huds.**	Junglipudina	Leaf extract that isused for the treatment of menstrual disorders, pulmonary infection, congestion, asthma, urinary tract infections, indigestion, back pain, headache etc. are also used for healing wounds and digestive disorders. Leaf and flower top act as carminative, stimulant, antiseptic and febrifuge.
Mentha piperrita **Linn. emend. Huds.**	Pudina	A volatile oil obtained from the plant is well known in medicine for its antiseptic, digestive, antispasmodic, diaphoretic, stimulant and carminative properties; used to treat nausea, sickness, headache, and vomiting also stomachic. Used in many mixtures of indigestion, colic and cough and cold remedies.
Ocimum basilicum **Linn.**	BanaTulasi	Leaves act as an insect repellent externally; burning relief to insect bites and stings. Flower is stimulant, carminative and antispasmodic also diuretic. Seed-antidysenteric, Juice of the plant is antibacterial.
Ocimum gratissimum **Linn.**	Ramtulasi	: Leaves juice with common salt given to babies in gripe; decoction applied to treat cough, fever and septic wounds; soup of young twigs with fermented decoction of boiled rice taken to treat high blood pressure. Plant used in neurological and rheumatic affections. Seeds soaked in water and taken as very cooling and refreshing drink.
Oscimum kilimandscharicum **Guerke.**	Karpurtulasi	Leaves decoction used in eye diseases. Plant as a whole used as spasmolytic, antibacterial, insecticidal, mosquito repellent.
Ocimum tenuiflorum **Linn. /** ***Ocimum sanctum*** **Linn**	Tulasi	Whole plant extract used as stomachic, digestive, diuretic, expectorant and stimulant; also useful in cardiopathy, homeopathy, leucoderma, asthma, bronchitis, hepatopathy, opthalmia, malarial fever and gastropathy in children. Root extracts used in malarial fever and seed extract use to treat genitor-urinary disorders. Leaves with *Curcuma aromatic* rhizomes are applied on the affected parts once a day in the night before bed time to cure tineaversicularis. The inflorescence is dried and pulverized and taken 5 gms. and mixed with ½ spoonful honey-this mixture is taken to cure migraine.

Conclusion

The traditional healers are the main source of knowledge on medicinal plants. There is a paramount need to create awareness about meaning and importance of traditional knowledge especially to the newer generation of tribal people. Due to many internal and external factors the learning bonds and knowledge transference from one generation to another has reduced among newer generation. For this, participatory research and extension would be required. It is also observed that some traditional plants in that area are gating eroded due to the lack of consciousness. It is necessary to conserve and records all ethno-medicinal information among the diverse ethnic communities before they are completely lost. Plants diversity in this districts is a boon to the tribal people, therefore efforts should be made for plant conservation and their cultivationshould be encouraged so that people may get an instant and readymade remedy at almost no cost.

Medicinal plants play an important role in providing knowledge to the researchers in the field of ethono-botany and ethno-pharmacology. So this research paper will attract the attention of ethno botanists, phytochemists and pharmacologists for further critical investigation of medicinal plants present in the districts of West Bengal, India.

References

1. Naghibi F., Mosaddegh M., Motamed S.M. and Ghorbani A., Labiatae family in folk medicine in Iran: from ethnobotany to pharmacology, *Iranian Journal of Pharmaceutical Research*, **2,** 63-79 (**2005**)

2. Patil H.M., Ethno botanical notes on Satpura hills of Nandurbar district, Maharashtra, India, *Res. J. Recent. Sci*., **1 (ISC-2011),** 326-328 **(2012)**

3. Sainkhediya J. and Aske D.K., Ethno medicinal plants used by tribal communities for the treatment of Snake bite in west Nimar, MP, India**,** *ISCA J. Biological Sci***.**, **1(2),** 77-79 **(2012)**

4. Sonowal R. and Barua I., Indigenous knowledge and bioresource utilization among the Tai-Khamyangs of Assam, North East India**,** *I. Res. J. Biological Sci*., **1(7),** 38-43 **(2012)**

5. Patil S.J. and Patil H.M., Ethno medicinal herbal recipes from Satpura hill ranges of Shirpur tahsil, Dhule, Maharashtra, India, *Res. J. Recent. Sci*., **1 (ISC-2011),** 333-336 **(2012)**

6. Sonowal R., Indigenous knowledge on the utilization of medicinal plants by the Sonowal kachari tribe of Dibrugarh district in Assam, North East India, *Int. Res. J. Biological Sci*., **2(4),** 44-50 **(2013)**

7. Maru R.N. and Patel R.S., Ethno-botanical survey of sacred groves and sacred plants of Jhalod and surrounding areas in Dahod district, Gujarat, India, *Res. J. Recent. Sci.*, **2 (ISC-2012),** 130-135 **(2013)**

8. Mukherjee A. and Namahata D., Herbal veterinary medicine as practiced by the tribals of Bankura districts, *Journal of Bengal Natural Hist. Soc.*, **7(1),** 69-71 (**1988**)

9. Namahata D. and Mukherjee A., Ethno-medicine in Bankura district, West Bengal, *Indian J. Applied and Pure Bio.*, **3(2),** 53-55 (**1988**)

10. Namahata D. and Mukherjee A., Some common practices of herbal medicines in Bankura district, West Bengal, *Indian Journal of Forestry*, **12(4),** 318-321 (**1989)**

11. Ghosh A., Ethnoveterinary medicines for the tribal areas of Bankura and Medinipur district, West Bengal, *Indian Journal of Traditional Knowledge*, **1,** 93-95 (**2002)**

12. Ghosh A., Herbal folk remedies of Bankura and Medinipur districts, West Bengal, *Indian Journal of Traditional Knowledge*, **2(4)**, 393-396 (**2003**)

13. Ghosh A., Ethnomedicinal plants used in West Rarh regions of West Bengal, *Natural Products Radiance*, **7(5)**, 461-465 (**2008**)

14. Dey S.K., De A., Karmakar S., De P.K., Chakraborty S., Samanta A. and Mukherjee A., Ethnobotanical study in a remote district of West Bengal, India, *Pharmbit*, **2,** 91-96 (**2009**)

15. Mallick S.K. and Behera N., Phytosociological analysis of ethno-medicinal tree species in Goaltore forest area of Medinipur, West Bengal, *Non-Timber Forest Products*, **16 (3),** 187-190 (**2009**)

16. Acharya J. and Mukherjee A., Herbal therapy for urinary ailments as documented from Bankuradiatrict (West Bengal), *Indian J. Sci. Res.*, **1(1),** 67-69 (**2010**)

17. Mondal T. and Biswas S., Ethnoveterinary uses of some medicinal plants of Bankura district, West Bengal, *Life Sciences Leaflets*, **5,** 47-49 (**2012)**

18. Mallick H. and Mallick S.K., Medicinal plants used by the tribals of Natungram village district Bankura, West Bengal, *International Journal of Basic and Applied Sciences*, **1(2),** 131-133 (**2012**)

19. Mallick S.K., Banerjee P. and Saha A., Medicinal plants used by the tribals of Ratanpur village of Bankura, West Bengal, *International Journal of life sciences*, **1(2),** 82-86 (**2012**)