Biospectra : ISSN : 0973-7057, Vol. 13(1), March, 2018, pp. 71-76

An International Biannual Refereed Journal of Life Sciences

Plant Science

ISSN : 0973-7057

Ind. Database Index: 663 www.mjl.clarivate.com

Ethnomedicinal plants used in the villages of Rajmahal hills of district Sahibganj by santhal tribes

Sanjay Kumar Hembrom*& Jyoti Kumar

P.G.. Department of Botany, Ranchi University, Ranchi, Jharkhand, India

Received : 29th December, 2017 ; Revised : 19th February, 2018

Abstract : An ethnomedicinal survey was carried out in villages around Rajmahal hills of district sahibganj,18 villages of different block were surveyed for the findings of climbers which were used for ethnomedicinal purposes and for the documentation of important climbers and information from local santhal community about their medicinal uses. The indigenous knowledge of local traditional uses was collected through questionnaire and personal interviews during field trips. Plants with their correct nomenclature were arranged by family name, vernacular name, part use, ethnomedicinal remedies and ethnomedicinal uses. The identification and nomenclature of the listed plants were based on The Flora of Bihar & Odhisa. A total of 33 plants species were identified by taxonomic description and locally by ethnomedicinal knowledge of people existing in the region. Plant specimens collected, identified, preserved and mounted were deposited in the university department of botany, Ranchi University.

Keywords : Ethnomedicinal, Rajmahal hills, Sahibganj

INTRODUCTION

Ethnomedicine is the study of the interaction between plant and people, with a particular emphasis on traditional medicine cultures. According to the world health organization (WHO) about 65-80% of the world population in developing countries depends essentially on plants for their primary health care due to poverty and lack of the access to modern medicine[1]. Ethnomedicinal plants, as a group comprise approximately 8000 species and account for about 50% of all higher flowering plants species in India (Gadi and Rao, 1988)[2]. India holds a global credibility of having diverse social, cultural and regional convention of indigenous medical heritage with an unbroken tradition coming down across millennia. Though medical heritage of such kind is quite a few centuries old, several million people in rural/remote places in this subcontinent still depend on traditional system of medicine to satisfy their healthcare demands (Jain, 1967)[3].This knowledge has been passed on orally from generation to generation without any written document (Perumal, Samy and Ignacimuthu, 2000)[4] and is still retained by various indigenous groups around the world. Some work on medicinal plants in relation to their utilization and conservation have been studied and conducted in many parts[5-13].The current deforestation trends, which threaten the existence of medicinally important plants makes it inevitable that this information be made available and encourage preservation of their culture, traditional knowledge, conservation and sustainable utilization of the plant wealth occurring in the study area.

*Corresponding author :
Phone : 08084080001
E-mail : sanjaymartein@gmail.com

METHODOLOGY

The study was conducted around the villages of Rajmahal hills in Sahibganj district approximately between

$24^0$42' north and $25^0$21' north latitude and between $87^0$25' and $87^0$54 east longitude. The present study carried out in following villages Sonajori , Barhait , Singa , Sonajori , Badegorabedo Dhobdiha , Barmasiya , Barapathar , Chhota pathar chapti , Makli , Karamtok , Margora , Pandari , Raghunathpur , Bara daldali ,Tilaki ,Singa, Bansikata etc. were surveyed between 2017-2018 by carried out ethnomedicinal survey with adult and old medicine men/ women who live in the area under study and know the practical uses of medicinal plants. Ethnomedicinal information were collected according to method suggested by Jain (1987).The ethnomedicinal data (Local name of the plants, Part used, Disease, mode of treatment, making of medicine) were collected through questionnaire, interviews and discussions among their local language. The questionnaire contains detailed information about the plants used. The collected plants were identified by using the Flora of Bihar & Odhisa (1961) was used to ascertain nomenclature. The specimens in duplicate were deposited in the herbarium of University Department of Botany, Ranchi University.

RESULTS & DISCUSSION

In the enumeration all the plant species are arranged with their family, local name, parts used and various uses for the treatment of illness and diseases (Table 1). A total of 33 plant species belonging to 23 families were reported for different therapeutic uses. Ethnomedicinal uses have been reported and investigation on the medicinal plants among the Santhal tribe of the district Sahibganj.. Fabaceae is the dominant family with 5 species followed by Apocynaceae,Solanaceae, with two species and Combretaceae, Cyperaceae Araceae, Dipterocarpaceae, Orchidaceae , Moraceae, Rhamnaceae each Euphorbiaceae, Meliaceae, Myrtaceae, Lamiaceae, Verbenaceae, Malvaceae, Moringaceae Anacardiaceae, Oleaceae, Rubiaceae, Cactaceae, Phyllanthaceae and Araceae with one species each.

Table 1. Mode of treatment and making of the medicine by the santhal tribe in Sahibganj district of the state Jharkhand.

	DISEASE	**Medicines**	**Making of medicines**	**mode of treatment**
1.	**Rheumatism/Bat**	**leaves of Abrus precatorius (Kawet sakam), the roots of calotropis gigantea(Akaona rehet,) the roots of Cleodendron serratum(Saram lutur rehet,). the bark of Magnifera indica(Ul chal).**	**Grind these together ,put in a new earthen pot and add water, cover with leaf plate and boil well.make the patient laid down & then steam him with the medicine, do this for five or six days.**	**medicine steaming./ Ran dac' bhapao**
2.	cancer in the face/Bandorali	(a) Lichen on a stone (Ot.Banat),the bark of saparom,Nyctanthes arbortristis.(b),the roots Rheumatism/Bat' of Scindapsus officinalis(Dare japat rehet).& the fruit of Eugenia jambolna(so jotet).	grind these together and apply on the spot.	Paste./ Ric gundae' thopram'
3.	Tumours/Doho	leaves of melia azadirachta indica (bir Nim sakam),bullock bone (dangra jan), Dolichos biflorsm(horec'). pigenous dung(Parwa ic,) , Salt (Bulung)	Grind these together and plaster on the tumour and it will soon burst.	Plaster./ Ric gundae' thopram.
4.	watering of the eyes./Met dak jorok	, the leaves of the large *Vanda roxburghii.(*Dare banki sakam)	Grind and drop into the eye,the watering pain will both cease,	grind & drop /Rasha boloc'
5.	Pain in the chest/Koram hasso'	,the bark of *Zizyphus rugosa*,(Grind sekra chal),the roots or leaf of *Datura metel(*datra rehet se sakam),the milky latex of *Calotropis gigantea.(*akaona lore)	Grind (sekra chal),the bark of *Zizyphus rugosa*,warm it a little and plaster it on/pound (datra rehet se sakam),the roots or leaf of *Datura metel* extract 4 ounces of the juice,mix there with4 ounces (akaona lore),the milky latex of *calotropis gigantea*, warm it in sunlight & then massage it over the pain area	Massage / Eskir'

6.	**Burns/Lo ghao**	**roots of Andropogon muricatus (Sirom rehet),bark of terminelia tomentosa(atnak chal).**	**Grind these togrther and apply on the burned part.**	**paste ,ointment. /Thopram'**
7.	measles /Talsa	Azadirachta indica(Nim sakam),roots of scirpus monostachyas(Sukri mutha rehet) , roots of Ichnocarpus frutescens(nanha dudhi lota rehet,).	Grind together and give it to drink daily until the eruption reappears.	medicine grinded to form liquid. / Ric'lewha ran rasa
8.	Syphilis /Gurmi	The bark of Euphorbia antiquorum (Etkec dare chal),roots of calotropis gigantea(akaona rehet), roots of Gymnema hirsutus(etka andia moron arak rehet),roots (rehet) of Mucuna pruriens, leaves of Opuntia dillenii.(sapin janum sakam)	Fry all these to burning point,mix all together and boil in mustard oil,and then apply with a feather.	oil massage./ Sunum ozoc'
9.	**Women gonorrhoeae, or Cystitis /Maejiu hor kuthi garmi**	**fruit of Pyllanthus emblica (Meral jo) ; Trigonella faenumgraecum(mithi), resin(dhura) of Shorea robusta.**	**Soak all these in water one night squeeze out and give this water to the patient to drink.**	**drinking of medicated water ./Raan 'daac.**
10.	Cholera /Maran lac odok	bark of the mango tree (Ul chal)magnifera indica,bark of shorea robusta(Sarjom chal),bark of anthodephalus cadamba(kadam chal).	Grind these three together squeeze out the juice and give this with a little shell lime very quickly to drink. if there is no improvement than give the juice of the first two mixed with opium the size of the pea to drink.	drinking of medicated water /Raan 'daac.
11.	To quench thirst in cholera /Dac' tetang chhadao'	bark of Melia azadirachta(Bir neem chal),bark of agele marmelos(haram sinjo chal) ,resin of shorea robusta (sarjom dhura')& pulverized kernel of mango stone(ul khoyo).	Grind all these i.e first the two bark and take their juice,then mix and add the last two and give the mixture to drink.	drinking of medicated water /Raan 'daac.
12.	**leprosy /Murhuc jom**	**oil of pongamia pinnata(Koronj sunum),bark of Acacia arabica(gabla chal), bark of Terminalia arjuna.(kauha chal).**	**Grind together,mix with pure gotom,melted butter from cow milk and anoint therewith daily.**	**malish /Ojoc'**
13.	antitodes for all kinds of snakes-bite. /Sanam lakan bin ger ran	leaf of bahunia purpurea(Sinz' arak,), bark of gmelina. Arborea(kashmar chal).	Grind these two make him drink with kanji dak,stale rice water and anoint him with some of the mixture.	anoint /Ozoc'
14.	sting of scorpion,centipedes ,spider etc. /Kidin katkom,sengel marmar', bindi ger' ran'/	bark of Bombax malabaricum(Edel chal),root of Moringa pterygosperma(munga rehet).(b)roots of Solanum xanthocarpum(Rangaini janum rehet).	Pound & apply to the stung part.(b) . Grind &apply as a plaster to the stung part.	plaster /Thopram

- Words written in **bold** letter denotes santhali language.

Table 2 Ethnomedicinal plants used in the villages of Rajmahal hills.

	Botanical name	Family	Santhali name
1.	*Abrus precatorius* L.	Fabaceae	**(Kawet sakam),**
2.	*Agele marmelos* L.	Rutaceae	sinjo
3.	*Andropogon muricatus* L.	Poaceae	**Sirom**
4.	*Azadirachta indica* A .Juss.	Meliaceae	Nim
5.	*Bahunia purpurea* L.	Fabaceae	Sinz'
6.	*Bombax ceiba* L.	Malvaceae	Edel
7.	*Calotropis gigantean* (L). Dryand	Apocynaceae	**(Akaona rehet**
8.	*Cleodendron serratum* L.	Verbenaceae	**Saram lutur rehet**
9.	*Datura metel* L.	Solanaceae	datra
10.	*Dolichos biflorus* L.	Fabaceae	horec'
11.	*Eugenia jambolna* L.	Myrtaceae	so jotet
12.	*Euphorbia antiquorum* L.	Euphorbiaceae	Etkec dare
13.	*Gmelina arborea* Roxb.	Lamiaceae	kashmar
14.	*Gymnema hirsutus* L.	Apocynaceae	etka andia moron arak
15.	*Ichnocarpus frutescens* L.	Apocynaceae	nanha dudhi lota
16.	*Magnifera indica* L.	Anacardiaceae	**Ul**
17.	*Melia azedarach* L.	Meliaceae	bir Nim sakam
18.	*Moringa oleifera* Lam.	Moringaceae	munga
19.	*Neolamarckia cadamba*(Roxb.)	Rubiaceae	kadam
20.	*Nyctanthes arbortristis* L.	Oleaceae	saparom
21.	*Opuntia stricta*(Haw.)	Cactaceae	sapin janum
22.	*Pongamia pinnata* (L.)	Fabaceae	**Koronj**
23.	*Pyllanthus emblica* L.	Phyllanthaceae	**Meral jo**
24.	*Scindapsus officinalis* (Roxb.)	Araceae	Dare japat rehet
25.	*scirpus monostachyas* (L.) Kuntze	Cyperaceae	Sukri mutha
26.	*Shorea robusta* Roth.	Dipterocarpaceae	Sarjom
27.	*Solanum virginianum* L.	Solanaceae	Rangaini
28.	*Terminalia arjuna* Roxb.	Combretaceae	**kauha**
29.	*Terminelia tomentosa* (Roxb.)	Combretaceae	**atnak**
30.	*Trigonella foenum*-graecum L.	Fabaceae	**Mithi**
31.	*Vachellia nilotica* L.	Fabaceae	**gabla**
32.	*Vanda tessellate* (Roxb.)	Orchidaceae	Dare banki sakam)
33.	*Zizyphus rugosa* Lam.	Rhamnaceae	sekra chal

CONCLUSION

The awareness has been carried out and created regarding the documentation of indigenous traditional knowledge of the santhal tribes in district Sahibganj, and it should be conserved before it get vanished from the santhal societies. The results of the present study provide evidence that the medicinal plants continue to play an important role in the health care system of this rural village community. This study and documentation provides an Ethnomedicinal data of the indigenous medicinal plants used by the santhal tribe of district Sahibganj to cure different diseases.

ACKNOWLEDGEMENT

The authors are thankful to santhal key medicine men/ women and the persons who helped us by sharing the valuable information of their traditional medicinal knowledge. We are also thankful to Dr .A.K. Choudhary, Head, University Department of Botany, Ranchi University, Ranchi for providing all the necessary facilities in the department.

REFERENCES

1. **Azaizeh H, S. Khalil and O. Said, 2003.** Ethnomedicinal Knowledge of local Arab

practitioners in the Middle East region, Filoterapia, **74**: 98-108

2. **Gadi M,Rao PRS, 1988.** Nuturing Biodiversity: An Indian Agenda(centre for Environment and Education,Ahmedabad,India).
3. **Jain SK.A 1967.** Ethnobotany: Its scope and study.Indian Museun Bull**. 2:** 39-43
4. **Perumal Samy R,Ignacimuthu S. 2000.** Antibacterial activity of some folklore medicinal plant used by tribals in Western Ghats of India.Journal of ethnopharmacology. **69**: 63-71.
5. **Bodding P.O.(1925).** Studies In Santhal Medicine and Connected Flok-Lore-I, Santhal and Disease. Mem. Asiatic Soc. Bengal. **10(1):**1-132.
6. **Srivastava D. K. and Verma S.K.1981.** An Ethnobotanical Study on Santhal Pargana, Bihar. Indian Forester **107**:30-41.
7. **Mondal S & Rahman C.H. 2012.** Medicinal plants used by the Tribal people of Birbhum district of West Bengal and Dumka district of Jharkhand in India. Indian Journal of Traditional Knowledge. **11(4):**674-679.
8. **Kirtikar K.R and Basu B.D, 1994.** Indian Medicinal Plants.(1933-1935).Indian Medicinal plants.vol.I to VIII(4 Vols.Text and 4 Vols.Plates).Reprint Dehradun U.P.
9. **Bondya S.L, Sharma H.P, Kumar J, and Sahu H.B. 2002.** Native medical Uses of Plant for Anthelmensis (Kirmi) at Ranchi District of Jharkhand.J.Phytol.Res. **15(1):**109-110.
10. **Singh C.T.N and Kumar J. 2003.** Allmania Nodiflora (L.)R.BR.,A less Known Medicinal Plant of Hazaribagh,Jharkhand.Ad.Plant.Sci. **16(2):**403-404.
11. **Sahu H.B,Bondya S.L,Kumar J and Sharma H.P.(2004).** Plant used For Gastro-Intestinal Disorder By Ethnic Tribes in Ranchi District.Geobios.31:149-151.
12. **Kuiri I, Kumar K and Kumar J.(2006).**The Edible Ethnomedicobotanical Plants of Purulia District,W.B.,India.Int.J.Mendel. **23**:3-4.
13. **Kumar M and Kumar J. (2009).** Conservation of Traditional knowledge of Hazaribagh Wild Life Santuary, Hazaribagh District, Jharkhand, India. Biospectra. **4(2):**445-448.
14. **Jain SK. 1987.** A Manual of Ethnobotany. Oxford Publishers, Jodhpur,.
15. **Haines H. H. 1961.** The Botany of Bihar and Orissa. Volume III.