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Medicinal Plants Used for Diarrhoea by Tribals from Majhgawan Block of District Satna, Madhya Pradesh, India

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ABSTRACT Diarrhoea is a leading cause of child and adult mortality in India. This paper deals with ethno-medicinal plants documentation and information which are used by the tribals of Majhgawan block of Satna district for the cure of diarrhoea. Study revealed the use of 12 plant species by different tribes for the treatment of diarrhoea. These plant species are enumerated alphabetically with their botanical name, vernacular name, family, plant parts used and the way of using them medicinally. *Holarrhena antidysenterica, Curcuma amada, Ficus glomerata and Butea monosperma* were the plants used by more than one tribe for treating diarrhoeal conditions. *Holarrhena antidysenterica* was reported to be used by 4 different tribes of the region for correction of diarrhoea. Dominating tribes of the region Kol, Gond and Mawasi utilized 50%, 33% and 25% of the plant species reported to be used as remedy of diarrhoea in the region.

INTRODUCTION

There are two systems of health care in the developing world, one being traditional and the other is western in derivation. The concept of traditional medicine is a conventional term used by medical scientists to refer to the empirical medical system used in different cultures all over the world. Each society has its own world view of origin, causes, concepts, practical therapies of sickness and has also developed the specialists that know how to apply them (Bhasin 2007). *Adivasis,* that is, tribal people or original settlers, described as a distinct ethno group living in the planes, forests or hills are no exceptions for that. They also have their own systems of medicines dispensed through the herbalists or senior citizens of the society along with traditional healers (Petkar 2002 and Mitra 2007).

Madhya Pradesh has the largest tribal population of all the states with 14.51% of total tribal population of the country. Thus, state possesses rich diversity in the tribal communities which may be seen in the lifestyle and cultural traditions, social and economic structure, religious beliefs, language and speech, customs etc. Total tribal population of Satna District of the state is above 2.68 lakh as per 2001 census data. Majhgawan a sub- district unit of Satna district of Madhya Pradesh, India was the site under study for the present work which has more than 1/3 population of the tribal population of whole Satna district (Anonymous 2009a and Anonymous 2009b).

The selected site has pockets of open to dense forests of good ethno-medicinal importance and is bounded by 80°10´ to 81°10´ longitude and 24°40´ to 25°15´ latitude with geographical area of 157479 hectares. Due to forest region many forest tribes are found in Majhgawan block. There are six tribe types are dominatingly exist in the Satna district. Namely these are - Kol, Gond, Mawasi, Bhumla, Pao and Khairwar (Sinha 1994).

Plants have many direct or indirect links with tribal life particularly on the economical front. Tribals of the study area commonly use many plant parts for food, medicine, fibre, oil, gum, resins, tribal craft and other miscellaneous uses. Herbalists or traditional healers from these groups frequently use many plant parts in the treatment of different routine body ailments where diarrhoea, a condition of having frequent loose or liquid bowel movements, is one of them. Acute diarrhoea is a common cause of death in developing countries and the second most common cause of infant deaths worldwide (Anonymous 2004).

India has vast resources of medicinal plants. The use of the plants as medicine is nothing new but according to an estimate there are more than 25000 effective herbal formulations exist in the country (Brahmavarchasva 2005 and Aneesh 2009). But many of them are unwrit-

ten. Ahead to this it can be said that each time a tribal medicine man dies, it is as if a library has burned down so there is urgent need of documentation of native knowledge of the before its extinction forever.

Despite of fair scope to achieve great global share in the market of medicinal and aromatic plants, India is lagging behind in world trade and is ranked third in the herbal medicine category. This emphasizes a great need of scientific backup in validation of existing formulations. To cater to this, such studies and their compilations is becoming popular. Studies of Mahajan and Mishra (2006), Singh and Mall (2007), Kar and Borthakur (2008), Das et al. (2008) and Ray et al. (2011) are examples of this. The selected area of study was also explored in some studies (Sikarwar et al. 2007 and 2008). The present study is an attempt to collect the information and documentation of the use of plants to treat diarrhoea by local tribes of Majhgawan Block of Satna district, Madhya Pradesh.

METHODOLOGY

For the data collection several field trips were conduct during December 2007- December 2008 in the different villages lying in the selected study area under Majgawan. Survey method was used to get inquiry about the treatment of diarrhoea by tribal herbalist. A partly unstructured questionnaire was used for the interview and information was collected as raw data (Jain 1987). During field trips information was collected from total 75 experienced persons (aged 32 to 76 years). Among the total respondents, a total of 20 respondents were taken from each of the three dominating tribes of the sub-district under study – Kol, Gond and Mawasi. This number was limited to 5, for less common tribes of region namely – Bhumla, Pao and Khairwar.

RESULTS AND DISCUSSION

The raw data received in the survey was tabulated and shown here as Tables 1 and 2. Table 1 represents tribe names and the corresponding popular plant species in use to treat diarrhoeal symptoms. Table 2 presents details on the part used, local name and the prescribed form of use of an individual plant.

Six main types of tribes are found in Satna district. In the study area of Majhgawan region only three tribes are dominant, namely Kol, Gond and Mawasi. The study revealed that these tribes use about 12 plant species for the cure of diarrhoea. Habitat of these plants was observed as 5 trees, 4 herbs/climbing herbs and 3 shrubs/small trees. Out of 12 plant species, 50% plant species were in use by Kol. Gond population was using 33% plant species while 25% species were in use by Mawasi. These three tribes are the dominating tribal population of the study area.

Table 1: Plant species reported to be used by different tribal population for diarrhoea

S.No.	*Name of tribes*	*Name of plant species*
1	*Kol*	1. *Curcuma amada*
		2. *Psidium guajava*
		3. *Xanthium indicum*
		4. *Aegle marmelos*
		5. *Holarrhena antidysenterica*
		6. *Ficus glomerata*
2	*Gond*	1. *Achyranthes aspera*
		2. *Butea monosperma*
		3. *Zizipphus vulgaris*
		4. *Acacia arabica*
3	*Mawasi*	1. *Acalypha hispida*
		2. *Holarrhena antidysenterica*
		3. *Butea monosperma*
4	*Bhumla*	1. *Ficus glomerata*
		2. *Holarrhena antidysenterica*
5	*Pao*	1. *Mucuna pruriens*
		2. *Holarrhena antidysenterica*
6	*Khairwar*	1. *Curcuma amada*

Holarrhena antidysenterica plant species was observed to be common as a remedy for diarrhoeal symptoms in 4 tribes (except Gond and Khairwar) out of the total 6 tribes of the study area. Gilani et al. (2010) has shown pharmacological basis for the medicinal use of the plant in gut motility disorders. The plant has been reported for use in dysentery (Sikarwar et al. 2007) by tribals in Chitrakoot location of Majhgawan block. *Curcuma amada, Ficus glomerata* and *Butea monosperma* were the other plant species which has been used by more than one tribe for the treatment of diarrhoea.

CONCLUSION

The study revealed twelve different herbal treatments for diarrhoea, used by tribal from the study area. Different plant species were used in each treatment. *Holarrhena antidysenterica, Curcuma amada, Ficus glomerata* and *Butea monosperma* were the common plant species

Table 2: Traditional mode of plant uses against diarrhoea by the tribal population of Majhgawan

S. No.	*Scientific name*	*Local Name*	*Family*	*Part used*	*How to use*
1.	*Achyranthes aspera L.* (Herb)	*Latzeera*	Amaranthaceae	Root	Simple strapping of small piece of root on the wrist is believed to check diarrhoea.
2.	*Aegle marmelos L.* (Tree)	*Bel*	Rutaceae	Bark	The powdered bark is made into paste with mustard seeds and given twice a day for diarrhoea.
3.	*Acacia arabica L.* (Tree)	*Babul*	Leguminosae	Leaf, bean	Leaf sap with whey or two bean of plant can eat with whey.
4.	*Acalypha hispida* (Herb)	*Kuppi*	Euphorbriaceae	Flower	Flower of this plant are used in diarrhoea
5.	*Butea monosperma lam.* (Tree)	*Palas*	Leguminosae	Gum	The gum mixed with curd and small amount of salt cure diarrhoea.
6.	*Curcuma amada roxb.* (Herb)	*Amahaldi*	Zingiberaceae	Rhizome	The rhizome powder is taken with 'Gur' for diarrhoea
7.	*Ficus glomerta Roxb.* (Tree)	*Gular*	Moraceae	Bark	The stem bark decoction is given in case of diarrhoea
8.	*Holorrhena antidysenterica Roxb.* (Tree)	*Dudhi*	Apocyanaceae	Bark	The decoction of stem bark is taken twice a day.
9.	*Mucuna pruriens L.* (Climbing herb)	*Kewanch*	Fabaceae	Root	The aqueous root paste is taken twice a day for two days.
10.	*Psidium guajava L.* (Shrub/Small tree)	*Amrood*	Myrtaceae	Leaves	The decoction of young leaves mixed with Anar leaf juice is taken orally twice a day for three days.
11.	*Xanthium indicum* (Shrub/Small tree)	*Banokra*	Asteraceae	Root	The root decoction mixed with black-pepper 2gm is taken orally a day.
12.	*Zizyphus vulgaris* (Shrub/Small tree)	*Ber*	Rhamnaceae	Root, Bark	The powder of root bark is taken with honey or curd in case of diarrhoea.

in use by the tribal of the region to treat diarrhoea.

RECOMMENDATIONS

There is a need of validation of the tribal remedies particularly. An attempt for management of diarrhoea in children by the tribal needs a separate study as the disease is fatal in infants.

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