Indian J.L.Sci. 5 (2) : 33-36, 2016

ISSN : 2277-1743 (Print)
ISSN : 2278-7879 (Online)

ETHNOMEDICINES USED IN CASUALTIES: A DOCUMENTATION FROM HOOGHLY DISTRICT, WEST BENGAL

PRIYANKA CHATTERJEE[a1] AND AMBARISH MUKHERJEE[b]

[ab]UGC CAS Phase II, Department of Botany, The University of Burdwan, West Bengal, India

ABSTRACT

The universal role of plants in the treatment of diseases is realized in their application in all the major systems of medicine irrespective of the underlying philosophical premises. Scientific study of herbal remedies used by different ethnic or cultural groups is presently given much importance concomitantly with a growing trend in modern societies for replacement of synthetic medicines by herbal formulations. Keeping parity with this trend the present work was taken up in different tribal dominated parts of Hooghly district, West Bengal to document the ethnomedicinal uses of 17 plant species belonging to the 14 families against casualties common in day to day life.

KEYWORDS : Ethnomedicinal, Ethnic, Herbal Remedies, Causalities

Traditional knowledge about the herbal remedies in India has been contributing enormously towards worldwide development of a promising complementary and alternative system of medicine. The rejuvenation of interest in herbal medicines emanates mainly from the efficacy of ethnomedicinal plants.

In view of the foregoing, the present work was undertaken for documentation of ethenomedicinally important plants of Hooghly district used to encounter different types of casualties common in day to day life. The primary objective of the work is documentation and preparation of databases of medicinal plants. Since most of the tribal or ethnic communities do not have their own script and written language, the indigenous knowledge about phyto-therapy that survives in traditions and gets orally transmitted through generations needs to be documented especially for protection of Intellectual Property Rights.

Study Site

Hooghly District, covering an area of 3.149 sq km on the western bank of the river Hooghly, is bordered by the districts of Burdwan in the north, Bankura in the North-west, Midnapore in the South-west, Howrah in the south, and by the river Hooghly in east. Among the different tribes settled in different parts of the district Santhals are the most dominant. The District has a typical monsoon type of climate with dry pre-monsoon (Mid-February to Mid-June), monsoon (mid-June to mid-October) and post-monsoon (mid-October to mid February) seasons. The annual mean temperature is 26.82^0 C. Maximum rainfall occurs during the monsoon in August and the average annual rainfall is above 1,500 mm. The district consists of four Sub-Divisions, viz., Chinsurah, Chandannagar, Arambagh, and Sreerampur. All these sub-divisions consist of 18 blocks, viz. Goghat-I and II, Khanakul-I and II, Pursura, Arambagh, Chanditala-I and II, Jangipara, Tarakeswar, Haripal, Singur, Dhaniakhali, Polbadadpur and Panduah were surveyed for documenting the ethnomedicinal treatments against common casualties.

MATERIALS AND METHODS

Ethnobotanical surveys were carried out since 2009 in the study site mainly covering the tribal dominated villages and following standard methods. Information was collected by conducting structured questionnaire based interviews of such knowledgeable informants as the as traditional healers, middle-aged housewives, senior wise men and patients. Concerned plant specimens were identified on the basis of taxonomic work-out and consultation of literature (Prain, 1903; Guha Bakshi, 1984; Bennet, 1987) and authentic specimens. The websites of the International Plant Names Index (IPNI), The Plant List and Tropicos were also consulted for updating nomenclature. Publications relevant to the ethnomedicinal perspectives of the present work (Jain, 1981, 1989, 1991, 1997; Chopra et al., 1956; Mukherjee and Namhata, 1988. Rahaman et al., 2008) were also consulted to reveal the novelty of the medicinal uses thus documented.

[1]**Corresponding author**

Table1: An Account of the Plant Species Used in the Treatment of Ailments Arising from Casualties

Scientific Name of the plant	Family	Local name of the plant	Plant parts used	Mode of Administration	Ailments Treated
Aegle marmelos (L.)Corrêa ,	Rutaceae	Bel	Stem berk	Decoction	snake bite
Aerva javanica (Burm.f.)Juss.ex Schult.,	Amaranthaceae	Lal bishakarani	Root	Dust	snake bite
Aristolochia indica L.,	Aristolochiaceae	Ishermul	Root	Paste	snake-bite
Azadirachta indica A. Juss.	Meliaeceae	Neem	Leaf	Decoction	Septic wounds
Barleria lupulina Lindl.	Acanthaceae	Bishallakaroni	Leaf	Paste	Hemorrhage
Calotropis gigantia (L.)Dryand.	Asclepiadaceae	Sada akondo	Leaf	Ointment	Eye problem
Cissus quadrangularis L.	Vitaceae	Harjora	Twig	Directly bound to the fractured area	Bone-fracture
Cymbopogon Winterianus Jowitt ex Bor.	Graminae	Kashraj	Leaf	Ointment	Anti-bacterial and Insect repellent
Cynodon dactylon (L.)Pers.,	Poaceae	Durba	Root	Paste	Snake bite
Glycosmis pentaphylla (Retz.)Dc.	Rutaceae	Dantan	Root	Chewing	Snake bite
Hemidesmus indicus (L.)R.Br.ex Schult	Asclepiadaceae	Anantamul	Root	Ointment	Allergic sensation of hands and legs
Lippia nodiflora L.	Verbanaceae	Kalindi	Leaf	Paste	Hemorrhage
Paedaria scandens L.	Rubiaceae	Gandal pata	Root	Paste	Snake bite
Piper betle L.	Piperaceae	Pan	Leaf	Paste	Hemorrhage
Terminalia bellirica (Gaertn.)Roxb.,	Combretaceae	Bahera	Fruit	Paste	Repairing Leprotic wounds
Tragia involarate L.	Euphorbiaceae	Bichuti	Root	Directly bound to the fractured area	Bone-fracture
Urena lobata L.	Malvaceae	Ban-okra	Root	Decoction	Hydrophobia

RESULTS AND DISCUSSION

The present work records ethnomedicinal uses of 17 plant species belonging to the 14 families along with their local names, ailments cured, parts used, how prepared and used etc. (Table1) from primary sources approached in the villages of different sub-divisions in Hooghly district.

Results shows that among all the documented plant species, roots are used in maximum cases i.e.in 50% cases where as the other plant parts like leaves, latex and twigs are used in 40%, 5% and 5% cases respectively (Figure 1). Among all the casualties documented here snake bite is the most common one (Figure 2). The folk lore for tackling such a casualty is highly appreciable. Since plants from local flora are mainly used as the source of drugs the remedies are likely to find practical application elsewhere to encounter similar casualties.

CONCLUSION

Concept of sustaining plants for procuring crude drugs in the tribal people is inspiring from the point of view of biodiversity conservation since in no cases flowers and fruits are destroyed for treatment of casualties of common occurrence. The Herbal formulations that are recorded in the present work can be used safely as home remedy for primary health care. Since the uses recorded are novel there is a need to phytochemically analyze, pharmacologically

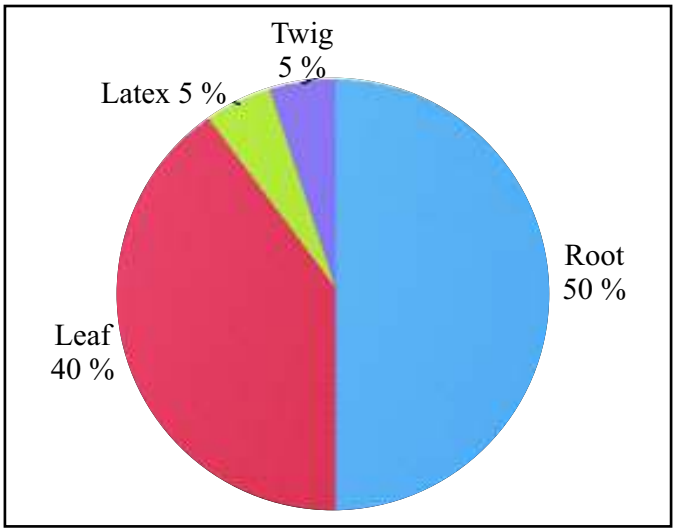

Figure 1 : Plant Parts Used in Casualties

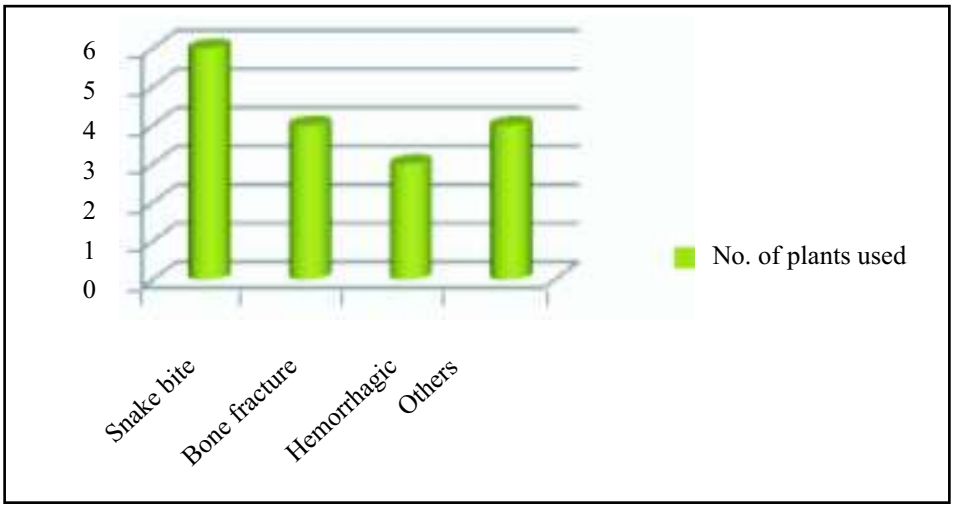

Figure 2 : Cases of Casualties and Number of Species Used

screen and therapeutically prove them for development of new patient friendly herbal medicines against the casualties dealt with in the present work.

ACKNOWLEDGEMENTS

The authors are thankful to the Department of Science and Technology, West Bengal for financial assistance. The first author is thankful to Dr. Sumita Bajpayee, Principal, Hooghly Women's College, Hooghly for the inspiration and the facilities received from her in the initial phase of the work.

REFERENCES

Bennet, 1987. Name changes in Flowering Plants of India and Adjacent Regions, Triseas Publishers.

Chopra R. N., Nayar S. L. and Chopra I. C., 1956. Glossary of Indian Medicinal Plants, CSIR, New Delhi.

Guha Bakshi D.N. 1984. Flora of Murshidabad district, Scientific Publishers, Jodh pur.

Jain S. K., 1989. Methods and Approaches in Ethnobotany, Deep Publisher. New Delhi.

Jain S. K., 1997. Contribution to Indian Ethnobotany. Scientific Publ. Jodhpur.

Jain, S. K., 1991. Dictionary Indian Folk Medicines and Ethnobotany. Deep Publisher. New Delhi.

Jain, S. K., 1981. Glimpses of Indian Ethnobotany. Oxford and I.B.H. Publ. Co.Pvt.Ltd. New Delhi, 1981.

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

Prain D., 1903. Bengal Plants, Printers and Publishers, Calcutta.

Rahaman C. H. Ghosh, A. and Mondal S., 2008. Studies On ethnomedicinal uses of plants by the tribal of Birbhum district, West Bengal. Indian Journal of Envion Ecoplan, **15** (1&2) : 333-338.