

Medicinal Plants Used in Traditional Medicine in Aizawl and Mamit Districts of Mizoram

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Abstract

Paper deals with the traditional healing herbs used by Mizo tribe in the treatment of several ailments viz. fever, ringworm, itching, worm infestation, dysentery, diarrhea, high blood pressure, jaundice, ulcer, scabies, kidney stone, piles, fistula, dandruff etc. in the Aizawl and Mamit districts of Mizoram. There is an urgent need of modernization and documentation of such valuable traditional knowledge and verification of their efficacy through clinical trial and to find out their chemical constituents.

Keywords: Traditional medicine, Mizoram, *Clerodendrum serratum*, *Solanum kurzii*, *Centella asiatica*.

1. Introduction

State of Mizoram is located in the north east corner of India of which the areas of the districts under study lies between 21° 56' N-23° E latitude and 92° 16'-93° 26' N longitude, descending in the south east extremity of North eastern region with the formation of sandwich between Myanmar in the east and Bangladesh in the West by sharing an international boundary of 585 kilo meters with these two countries Remaining part of the state is bounded with the state of Tripura in the West and Assam in the north partially the north eastern boundary of the state is

also surrounded by Manipur. The state is divided into 8 districts out of which Aizawl and Mamit covered under studies are located in the northeastern part of the state. (Figure 1.)

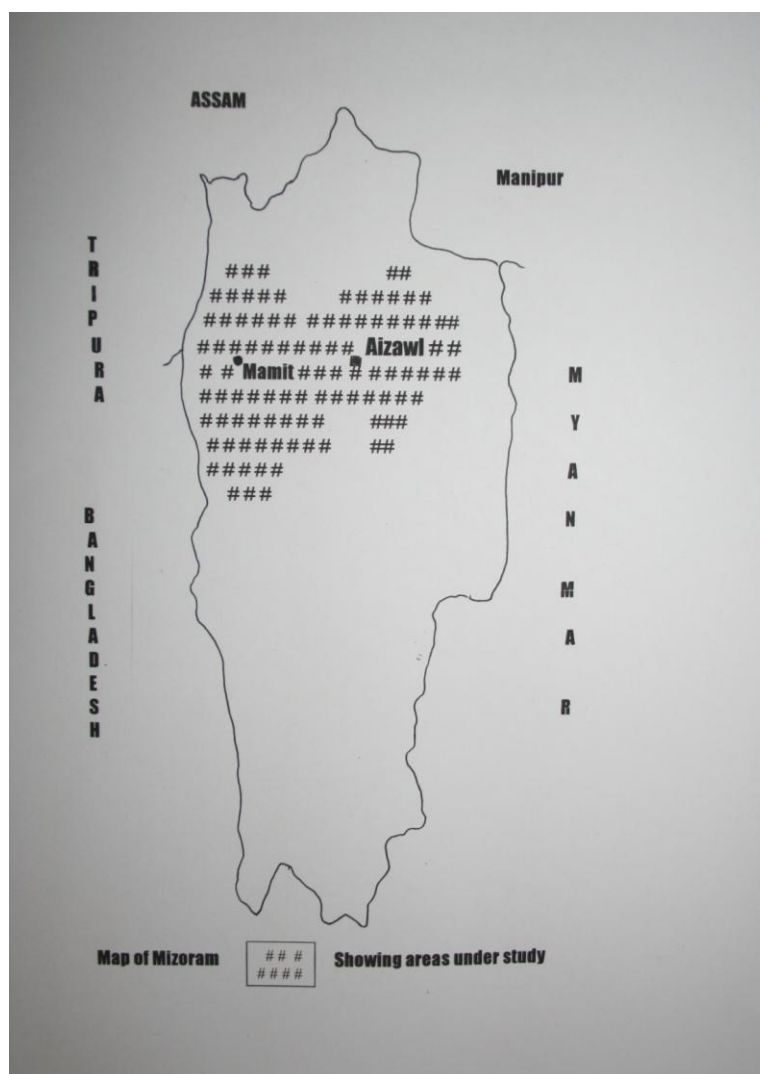


Figure 1.

Information on is available on the use of traditionally used medicines and their distribution in the areas with traditional use of commercially important medicinal plants suitable for developing traditional knowledge for socio- economic upliftment. Information on the medicinal wealth and various aspects of folk lore medicines used by the natives of Mizoram is sufficiently available (Mahati, 1994; Lalramnghinglova, 1996; 1999; Singh et al. 2002; Lalfakzuahla et al., 2007; Rai & Lalramnghinglova, 2010a, b, c). Medico botanical exploration of districts of Kolasib, Aizawl, and Chaphai had also been made (Rama Shankar, 2009). However, the details of the medicinal plants used by the traditional healers of Aizawl and Mamit districts are insufficiently known Accordingly, the attempt on medico ethno botanical aspects of Aizawl and Mamit districts have been taken under study where in the medicinal plants belonging to established system of medicine i. e. Ayurveda, Unani and Siddha were used by the traditional folk healers in a crude single or combination of drugs for the cure of different diseases as well as methodology of use in comparison to already reported disease and

methodology. In general, traditional healers use crude drug part either in fresh juice or decoction for healing the ailments. In case of joint pains, headache or other types of pain, poultice or paste of fresh plant is externally used. During the study about 37 such medicinal plants used by traditional healers along with their healing practices and methodology from the districts under study have been recorded and discussed in this paper.

2. Methodology

The present study is based on repeated medicinal plants survey in the state of Mizoram covering districts of Aizawl and Mamit. Different demonstration on traditional healing practice was observed under which information on local name and parts used as well as methodology of application and doses were recorded through interaction and discussion along with demonstration of methodology of use. In total 12 villages were covered with an aim to find out some new drug plant or methodology for adding to the recognized system of medicine like Ayurveda, Siddha, Unani and Homoeopathy. To fulfill the goal, the study was carried out with an interaction with the local healers using traditional method of treatment in different 12 villages. Out of 12 villages, only informants under the leadership of Shri R.P. Ropianga from Lengpui have come across to share their knowledge with sufficient knowledge about traditional healing practices and are engaged in treating ailments. Side by side knowledge on common use of medicinal plants used in Ayurveda as single drugs were shared on exchange basis which helped the informers also to increase their herbal knowledge. Methods for systemic utilization and sustainable collection were experienced the local healers for socioeconomic development by undertaking cultivation of these high valued medicinal plants. Voucher specimens were prepared and maintained in the Herbarium of Ayurveda Regional Research Institute Itanagar. Authenticity of the plant herbarium was confirmed by matching the specimens with the authentic samples kept in the Herbarium of Botanical Survey of India, Eastern Circle, Shillong.

3. Results

The traditional system of healing includes indigenous medicines used orally or external application of herb, its paste as well as healing processes through sacrifice like ritual or rites for the appeasement of good and relief from evil spirits. Traditional practices for healing ailments is long term process and due to various developmental activities these practices are gradually depleting and very lesser number of herbalists and folk healer are practicing, who are far away from developed cities. State of Mizoram is inhabited by Mizo tribe and they are using various herbal preparations for treating various ailments. Due to developmental activities their numbers and knowledge is being reduced and need their conservation and proper documentation.

This system is still retaining in tribal areas where the traditional practice men are adopting the practice. Information on some of the herbs used in the traditional system of medicines in Mizo community has been emphasized in this paper (Table 1). During the course of study 37 folklore claims were recorded out of which maximum distribution amongst the families goes to Asteraceae with five representatives followed by Verbenaceae with three representatives and families of Apiaceae, Apocynaceae, Euphorbiaceae, Fabaceae, Mimosaceae and Solanaceae

are represented with two species whereas, in the families like Acanthaceae, Anacardiaceae, Araliaceae, Bignoniaceae, Caricaceae, Caesalpiniaceae, Costaceae, Cucurbitaceae, Dilleniaceae, Lamiaceae, Liliaceae, Malvaceae, Moraceae, Myrtaceae, Poaceae, Rosaceae and Rubiaceae there is only one species used by Mizo tribe of Aizawl and Mamit districts of Mizoram.

Table 1. Medicinal plants used in traditional medicine by healers of Mizoram

Botanical name	Family	Local name	Use
<i>Ageratum conyzoides</i> L.	Asteraceae	Lensa	Fresh leaves crushed and used to stop bleeding. Juice of leaf used to stop nose bleeding.
<i>Aloe barbadensis</i> Mill.	Liliaceae	Aloe vera	Leaf pulp (1 tea spoon full) is used thrice a day in jaundice and other liver disorders.
<i>Alstonia scholaris</i> R.Br.	Apocynaceae	Saptaparna; L. Montho;	Powder of stem bark (1gm) with luke warm water twice a day for seven days. If persists continued till 10 days to get relief from malarial fever.
<i>Anthocephalus chinensis</i> (Lam.) Rich. Ex Wall	Rubiaceae	Banphar (Mizo).	Ripe fruits are edible and acts as appetizer and protects mouth from mouth ulcer..
<i>Artemisia vulgaris</i> L.	Asteraceae	Nagdamanika; L. Sai	20-25 gms of fresh leaf boiled in 200 ml. water till reduced 50 ml. taken twice a day before meal in malarial fever till complete relief.
<i>Aralia montana</i> Blume	Araliaceae	Kotabell.	Leaf decoction (10 gms of fresh leaf in water) used thrice a day during malarial fever till one week/ till relief.
<i>Artocarpus heterophyllus</i> Lam.	Moraceae	Kathal	Paste of leaves is locally used on skin diseases like ring worm and itching till complete relief.
<i>Bauhenia variegata</i> L.	Caesalpiniaceae	Vaufavang.	One tea spoon of powdered dried buds taken with fresh water thrice a day as a remedy for piles and dysentery. Same process is adapted for worm infestation.
<i>Benincasa hispida</i> (Thunb.) Cogné	Cucurbitaceae	Manipat	Three pieces each with 70 gms of fruit is taken a day in diarrhea. Three pieces are anthropological concept for remedy.
<i>Callicarpa arborea</i> Roxb.	Verbenaceae	Priyangu Hnahkiah	Decoction of 2-3 leaves pound in water or made decoction and taken twice a day before meal in gastric ulcer.
<i>Cathranthus roseus</i> (L.) G.Don	Apocynaceae	Sadavahar	3-4 flowers and leaf taken orally as a remedy of diabetes.
<i>Carica papaya</i> L.	Caricaceae	Tingfanghana	About 100 gms fresh unripe fruits taken orally in dysentery and vomiting. Seeds chewed directly for expelling intestinal worm. Paste of leaf used in ring worm Unripe fruit cooked with chicken is given in malaria
<i>Centella asiatica</i> (L.) Urb.	Apiaceae	Lambak	5 to 8 fresh leaves are eaten thrice a day during the period of stomach ache, kidney stone.

			It improves loss of appetite and act as remedy for jaundice It is also considered that taking up 5-10 fresh leaves in the morning also improves eye vision.
<i>Chromolaena odorata</i> (L.) King. & Rob.	Asteraceae	Thangsam	Leaf paste stops bleeding.
<i>Clerodendrum viscosum</i> Vent.	Verbenaceae	Phuihnam.	Decoction of two to three leaves is used as shampoo to remove dandruff. Root Paste used in scabies through external application.
<i>C. serratum</i> (L.) Moon	Verbenaceae	Phuihnamshak	Leaf decoction of 4 -5 leaves used in jaundice twice a day and improves high blood pressure.
<i>Costus speciosus</i> (Koen.) Sm.	Costaceae	Kebuk, Kushtha; Sambul	Rhizome paste taken in removal of kidney stone.
<i>Crotalaria juncea</i> L.	Fabaceae	Sana; Tumthang	Flower used as vegetable with the concept of high nutritious and worm repellent.
<i>Dillenia indica</i> L.	Dilleniaceae	Kawsthindang	10 ml. of juice of leaves, bark and fruits (1:1:3) for twice a day, used in diarrhea till complete relief.
<i>Emblia officinales</i> Gaertn.	Euphorbiaceae	Sinhlu.	Bark pounded in water two tea spoon full taken twice daily as remedy for dysentery. Bark used in fish poisoning.
<i>Eryngium foetidum</i> Lam. L.	Apiaceae	Bahkhawr	Decoction of fruits (10 ml.) used in dysentery. Leaf juice externally applied on forehead or shriveling fever. Leaf is taken as incense for flavour of vegetable.
<i>Indigofera prostrata</i> Willd.	Fabaceae	Sekhupthur	Boiled seeds are taken orally in piles and fistula.
<i>Leucas indica</i> (L.) R. Br. ex Vatke	Lamiaceae		Leaf juice used for control of nose bleeding
<i>Mangifera indica</i> L.	Anacardiaceae	Theihai	Juice of 1-2 tender leaves used in diarrhea, twice daily.
<i>Mikania scandens</i> (L.) Willd.	Asteraceae	Japan Lao	Plant juice is used thrice a day in dysentery and other stomach troubles.
<i>Mimosa pudica</i> L.	Mimosaceae	Lajjalu	Leaf juice or decoction is used in jaundice. 5-6 mature seeds are given to alcohol addicts which makes them free from addiction.
<i>Oroxylum indicum</i> (L.) Benth.	Bignoniaceae	Archangkong	Leaf decoction is used by gargling in tonsillitis Stem bark is used in Malaria, Jaundice and Typhoid
<i>Parkia roxburghii</i> D. Don.	Mimosaceae	Zawngtah	Root juice (1-2 tea spoon full) used in fever. Young green pods eaten raw, seeds boiled and taken as vegetable.
<i>Phyllanthus amarus</i> Schum & Thom.	Euphorbiaceae	Mithisunhlu	Plant juice with 5-6 leaves of <i>Centella asiatica</i> is used in jaundice
<i>Phyllostachys</i>	Poaceae	Montho	Fruit juice is applied on affected parts of

<i>bamboosoides</i> Sieb. and Zucc.			skin diseases like eczema and ring worm.
<i>Portulacca oleracea</i> L.	Portulaccaceae	Hmutau	Two tea spoon full of root decoction taken as a remedy for dysentery and diarrhoea
<i>Psidium guajava</i> L.	Myrtaceae	Guava	Fresh leaves are used in dysentery and cholera
<i>Solanum kurzii</i> Brace ex Prain	Solanaceae	Tawkte	Fresh berries (1 gm. Powdered) are used three times a day in reducing blood sugar
<i>Solanum torvum</i> Sw.	Solanaceae	Tawkte	Fresh berries (1 gm. Powdered) are used three times a day in reducing blood sugar
<i>Spilanthus paniculata</i> Wall. Ex. DC.	Asteraceae	Arisato	Flower crushed and given in stomach ache.
<i>Thunbergia gramndiflora</i> Roxb.	Acanthaceae	Vako	Root powder or paste (1 gm) is taken twice a day in removal of kidney stone and jaundice.
<i>Urena lobata</i> L.	Malvaceae		Root pounded in water is given in Kidney disorders

4. Discussion and Conclusion

During exploration of traditional healing practices in the districts of Kolasib, Aizawl, and Mamit in Mizoram it was observed that several medicinal plants described in established Ayurvedic system of medicines are used by traditional healers of Mizo community. Though several workers have reported the folklore medicinal plants of Mizoram (Mahati, 1994; Lalramnghinglova, 1996; 1999; Singh et al. 2002; Lalfakzuahla et al., 2007; Rama Shankar et al., 2009; Rai & Lalramnghinglova, 2010a, b, c.) however, reports on methodology and dose of the drugs used for those folklores which are used in different system of medicines was still lacking and the present communication deals with the details of the drugs which are being used in different doses either as single drug or compound formulations.

The folk medicinal plant used by traditional healers are confined to most of the diseases prevalent in different areas like diarrhea, dysentery cold cough and skin diseases which are very prevalent in the state due to high moisture content and problems arising through drinking water. During exploration it was also found that some of the traditional healers have developed their own herbal garden for use of these fresh drugs for treatment. Several endangered species like *Oroxylum indicum* *Cissamplelos pareira*, *Stephania japonica* are also being used by traditional healers. This knowledge of traditional healers needs to be made popularized by taking them under various formulations.

Study reveals that distribution of these medicinal plants are being rare and endangered in their natural habitat due to several factors which need to be conserved and cultivated for their perpetual existence. Simultaneously, traditional knowledge should be documented, and preserved for further studies. Some species viz. *Aralia montana* (Kotabell), *Indigofera prostrata* (Sekhupthur), *Parkia roxberghii* (Zawngtah) are not known to established system of medicines, whereas Mizo community are using these plants in treatment of specific ailments. There is a good scope for verifying the efficacy of these plants, detection of chemical constituents present in different parts of such plants and further clinical trial. During study it was observed that maximum number of traditionally used plants were belonging to family

Asteraceae with five representatives which in turn was followed by Verbenaceae with three representatives, Apiaceae, Apocynaceae, Euphorbiaceae, Fabaceae, Mimosaceae and Solanaceae, having two representatives whereas the families having only single representative were Acanthaceae, Anacardiaceae, Araliaceae, Bignoniaceae, Caricaceae, Caesalpiniaceae, Costaceae, Cucurbitaceae, Dilleniaceae, Lamiaceae, Liliaceae, Malvaceae, Moraceae, Myrtaceae, Poaceae, Rosaceae and Rubiaceae.

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