

## **Research Article**

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# **Exploration of some folk medicinal claims of Mizoram** (India)

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## **ABSTRACT**

India has rich diversity of medicinal plants. The tribal peoples in different parts of India use their traditional knowledge in their primary health care. This traditional system of medicine serves a large portion of rural population which is out of reach and infrequently intruded by modern health care system. Mizoram, one of the North eastern states of India positioned in extreme of Himalayan ranges is rich in flora and fauna. There is high prevalence of folk medicinal practice in the rural areas of the state. 14 such folk medicinal claims of herbal origin documented from Lunglei and Darlawn area of Mizoram have been presented in this study.

Keywords: Darlawn, Folk medicine, Lunglei, Mizoram.

## INTRODUCTION

India has rich diversity of medicinal plants distributed in different geographical and environmental conditions. Tribal people in different parts of India use their traditional ecological knowledge received from their ancestors and contemporary society, in primary health care. The traditional systems of medicine together with folklore systems continue to serve a large portion of the population, particularly in rural areas, in spite of the advent of the modern medicines. Out of about 15,000 species of higher plants in India, medicinal uses have been attributed to 1500 species [1].

Mizoram is one of the eight states of North-East India, situated in the extreme of Himalayan ranges covering 21,087 km² and situated between 92°15′ and 93°26′ E longitude and 21°58′ and 14°35′N latitude. The state has two international borders, Myanmar in the east and Bangladesh in the west  $^{[2]}$ . Mizoram has the most variegated hilly terrain in the eastern part of India. The hills are steep and are separated by rivers which flow either to the north or the south creating deep gorges between the hill ranges. The average height of the hills is about 900 meters. Mizoram has great natural scenic beauty and endless variety of landscape and is very rich in flora and fauna. Almost all kinds of tropical trees and plants thrive in Mizoram. The hills are marvelously green  $^{[3]}$ . Temperature of the state varies from 11  $^{0}\text{C}$  - 21  $^{0}\text{C}$  during winter and 20  $^{0}\text{C}$  - 30  $^{0}\text{C}$  during summer  $^{[4]}$ . In Mizoram, the number of doctors and other medical staff is very low, in comparison to the total population, and due the under developed communication system in the state the people of the rural areas cannot avail of modern methods of treatment and they search for remedies from nature  $^{[1]}$ . The local traditional healers are the only source of health service providers to the localities. The folk medicinal claims have been documented during the ethno medico botanical field trips of Mizoram with a view to conserve and bring this indigenous knowledge to the scientific community.

MATERIALS AND METHODS: The present study covers the different areas of Lunglei and Darlawn of Mizoram, India. Lunglei is one of the prominent districts of Mizoram, encompassing a total area of 4,538 sq. km <sup>[5]</sup>. Lunglei is located at 22.88°N 92.73°E. It had an average elevation of 722 meters (2368 feet) <sup>[6]</sup>. In 2011, Lunglei had population of 161,428 <sup>[7]</sup>. Darlawn is a census town in Aizawl district in the state of Mizoram, India. Darlawn is located at 24.02°N 92.9°E. It has an average elevation of 870 meters (2854 feet) <sup>[8]</sup>. Field survey was conducted to collect information on folklore use of medicinal plants for the healthcare of indigenous people of the area.

**RESULTS:** 14 numbers of Folk medicinal claims have been presented (in Table -1) in this study with their individual Botanical name, Sanskrit name, Local name, Place of collection, Distribution, Part/parts used, Indication (disease) and mode of preparation and administration are given.

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 Table 1: Documented folk medicinal claims from Lunglei and Darlawn of Mizoram

S. No.	Botanical Name	Sanskrit Name	Local Name	Place of collection	Distribution	Indication	Part used	Mode of use
1	Allium sativum L.	Lashuna	Puruna	Lunglei, Mizoram	Cultivated	Abdominal colic	Bulb	Two bulbs chewed with water thrice daily till recovery of abdominal colic.
2	Ananas comosus (L) Merr.	Bahunetra	Lakhuihe	Lunglei, Mizoram	Cultivated	Kidney stone	Leaves	One glass cruised juice taken orally for one month daily.
3	Begonia thomsonii A. DC.	-	Sekhupthur	Darlawn, Mizoram	Rare	Piles	Leaves and stems	One cup expressed juice of both leaves and stems taken orally thrice daily for one month.
4	Clerodendrum colebrookianum Walp.	-	Phuihnam	Lunglei, Mizoram	Not common	High blood pressure	Leaves	One glass boiled juice taken orally twice daily for 1 week.
5	Costus speciosus (Koen.ex. Retz.) Sm.	Kebuk	Sumbul	Darlawn, Mizoram	Not common	Burning micturation	Rhizome	One cup juice from rhizome taken orally at an interval of 2 hours till the symptoms subsides.
6	Curcuma longa L.	Haridra	Aieng	Lunglei, Mizoram	Cultivated	Gastric ulcer	Rhizome	One cup crushed juice taken orally in empty stomach for one month relieves the pain.
7	Euphorbia hirta L.	Dugdhika	Zawhte hlo	Lunglei, Mizoram	Sporadic	Kidney stone	Leaves	5 ml boiled juice taken orally thrice daily for one month.
8	Hedyotis scandens Roxb.	-	Kelhnamatur	Lunglei, Mizoram	Scattered	Liver enlargement	Leaves	One glass crushed juice taken orally twice daily for 2 weeks.
9	Hedyotis scandens Roxb.	-	Laikingtuibur	Darlawn, Mizoram	Scattered	Malaria	Leaves	One cup crushed juice taken orally at an interval of 2 hours daily for 7 days.
10	Indigofera tinctoria L.	Nilini	Saisiar	Darlawn, Mizoram	Rare	Scabies & ring worms	Leaves	Leaves paste applied on affected part twice daily and decoction of the leaves are also used for bath in scabies.
11	Melocanna baccifera (Roxb) Kurz.	Bansh	Mautak	Lunglei, Mizoram	Abundant	Ringworm	Fruits	Internal secretion of cut fruits, applied locally on ring worms.
12	Mimosa pudica L.	Lazzalu	Hlonuar	Darlawn, Mizoram	Common	Diabetes	Leaves	One cup leaves juice taken orally twice daily in empty stomach for 1 month.
13	Scoparia dulcis L.	-	Vawkektumtuak	Darlawn, Mizoram	Common	Dysentery	Whole plant	One cup crushed juice taken orally at an interval of 2 hours for one week.
14	Zanthoxylum sp.	-	Ching-it	Lunglei, Mizoram	Rare	Fever	Leaves	One glass of boiled decoction taken every 6 hour orally.

#### DISCUSSION

The documented medicinal claims from Lunglei and Darlawn contain herbs which are rare to common in spread. Some herbs are cultivated also as vegetables and other uses like Allium sativum, Ananas comosus, Curcuma longa. Some of the claimed herbs show similar properties as according to Ayurvedic text [9] e.g. Allium sativum used in Abdominal colic have Shool Prasaman property, Ananas comosus used in Kidney stone is said beneficial in Asmari (calculi), Indigofera tinctoria used in Scabies & Ring worms is said as Kusthagna, Mimosa pudica used in Diabetes is said as Pramehagna. Experimental study of Clerodendrum colebrookianum water extract have showed its anti hypertensive action  $^{ ext{[10]}}$ . In clinical trial by Prucksunand  $ext{\it Curcuma longa}$  has shown both Gastric ulcer and Duodenal ulcer healing properties as claimed in the documented traditional use <sup>[11]</sup>. Use of *Scoparia dulcis* in dysentery is also described in Suriname's traditional medicine <sup>[12]</sup>. *Euphorbia hirta* is used in Kidney stone as diuretics in South Africa [13]. On the other hand few traditional uses like *Begonia thomsonii* in Piles, *Costus speciosus* in Burning micturation, Hedyotis scandens in Liver enlargement, Hedyotis scandens in Malaria, Melocanna baccifera in Ringworm, Zanthoxylum sp. (Local name Ching-it) in Fever are seems to be new. These folk medicinal claims demand attention from the scientific community for their methodical evaluation and main streaming.

### CONCLUSION

The Ethno-medico Botanical survey of Lunglei and Darlawn of Mizoram showed a wide verity of use of plants which are common to rare in spread in treatment of diseases. Some of the claims have relevancy with Ayurvedic texts and few are also used for same disease condition in different parts of the world. However few uses of herbs seem to be new one. Though these claims have high use and success as claimed by the local peoples, but the scientific base has yet to be validated through modern trend of research. Efforts have been taken to explore this traditional knowledge for main streaming for the benefit of human civilization.

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## **Author Contribution**

All the authors have authored and technically reviewed the paper.

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