Study on the Medicinal Plants used for Dermatological Healthcare Management Practices by The Paite Tribe of Manipur, India

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Abstract

The present study aims to explore and document the plants having the crude medicinal properties to cure various kinds of skin problems by traditional methods of the Paite tribe of Manipur, India. The study was carried out in and around the villages where they resided therein. Most of the Paite population is confined to Churachandpur district of Manipur. From the present study thirty two (32) plant species belonging to 25 families with 29 genera were found to be recorded and especially found to be used in various dermatological healthcare problems which include eczema, scabies, ringworm, leprosy, leucoderma, boils, pimples, black spots, burns, cuts and wounds, etc.

Keywords: Dermatological healthcare, Ethnobotany, Manipur, Medicinal plants, Paite tribe

I. INTRODUCTION

The use of plants with human civilization dates back to over centuries ago. Nature endows a large number of plant species which is of immense value in different terms of timber, firewood, medicinal, food and fodder, etc. Of these, medicinal properties of plants is mostly concerned, a wide scope for study. It is roughly 80% of world's population in most of the developing countries depend on the plant resources for their primary health care needs (De Silva, 1997; Chowdhury and Koike, 2010). In ancient times, the forest dwellers or tribal communities and rural people relied on forest products which were found in and around their surroundings but now-a-days people made their first choice on the herbal remedies. This has led to overexploitation of many of the valuable plants and it makes them vulnerable. Indigenous knowledge on natural resources, utilization on medicinal plants not exceeding the rejuvenance of the environment is regarded as an important aspect of sustainable plants biodiversity conservation (Kala, 2005). It is the high time for us for proper documentation. In India, there are some ethnobotanical workers regarding the useful plants for skin infections and disorders viz. Anonymous ,1994Ali & Abu,1999; Akhilesh *et.al*,2012; Abbasia *et.al*.,2010.The old treasure of the tribal traditional knowledge of plants is an important aspect of ethnobotanical research. There is a lot of valuable information and intensive knowledge about the variable uses of plants. They preserved this tradition generation by generation through oral, overwritten literatures, etc. The study of ethnobotany is increasing valuable in few decades for the development of healthcare practices in different parts of the world.

II. STUDY AREA

Manipur, an eye withstanding state in the North-Eastern part of India is well-known for its glorious culture, tradition, abundant natural endowments have unique distinction of possessing unique, diverse and complex forest resources. The state covering an area of 22,327sq.km is surrounded by nine ranges of hills from all the directions and has an oval shaped fertile valley at the centre. It is surrounded by the nation Myanmar in the east and south, Nagaland in the north and Assam in the west. Manipur falls in biodiversity hotspot regions of the world.

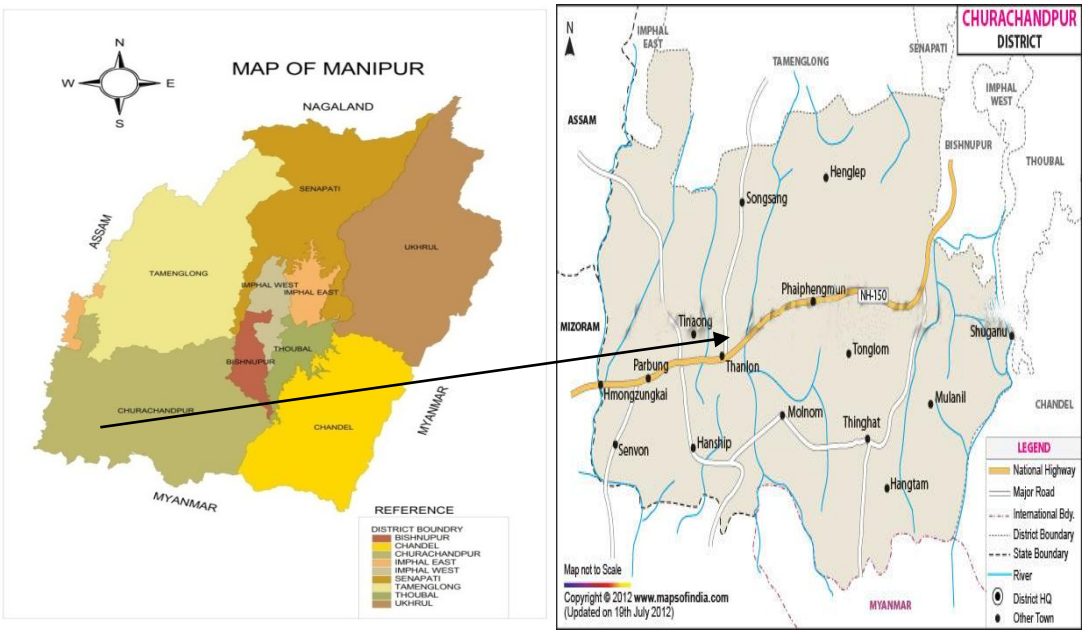

Fig. 1: Map of Manipur Showing Churachandpur District

Manipur has a pleasant sub-tropical monsoon type of climate with hot & wet summer and cold dry winter owing to its geographic structure, location, intensity of forest cover, water bodies of the Loktak Lake There is quite a variation in the annual average rainfall in the state. Churachandpur district, one of the hill districts, is the largest district of Manipur. It lies in the south-western part of the state and it stretches an area of 4,570 sq.km and it has divided into five subdivisions.

III. ABOUT THE TRIBE

Paites belong to the Northern Chin of Myanmar, sub-groups of Kuki-Chin. In Manipur, they dominate in Lamka town of Churachandpur district contributing 6.6% to the total ST population, living with Thadou and Vaiphei. The Paite are a recognized scheduled tribe in Manipur and Mizoram. According to the local traditions, Paites are originated from a 'Pit' somewhere in Central China. The Paites are shy, introvert people who are sincerely devoted in whatsoever they perform. They have their village chief who is the owner of the village land, guardian and administrator of the village. He is the head of the village administration who decides a dispute with the help of the village council (Hausa Upa).

IV. METHODOLOGY

Frequent seasonal surveys were conducted during 2012-2014 in Paite inhabited villages in Churachandpur district of Manipur. Prior this, permission were taken from village chiefs, forest officials to enter and collect plant specimens. The traditional healers, herbalists, old women were interviewed and group discussions to collect the information about the usefulness of the plants. The plant specimens were collected from the study areas in their fruiting and flowering stages with the help and guidance of the traditional healers. At the same time the collected plant specimens were attached with tags bearing the collection number, collection data, vernacular name, parts used, mode of uses and dosage administration, etc. The collected plants were then dried and poisoned by mercuric chloride and ethanol. The authentic identification of the plants was done with the help of the available floristic literature such as Flora of Assam Vol. 1-4 (Kanjilal *et.al*., 1934).

V. RESULTS AND DISCUSSION

The collected plant specimens are recorded and presented their scientific names, family, vernacular names, parts used and mode of use accordingly in a tabulated form.

Table-1
Plants used in various dermatological problems by the Paite tribe of Manipur

Scientific name & Family	*Vernacular name*	*Parts used*	*Mode of uses*
Alpinia galanga Willd. (Zingiberaceae)	*Aital*	*Rhizome*	*Fresh juice of rhizome is applied locally to ring worms and white patches on skin.*
Ananas comosus (L.)Merr.	*Kihom*	*Fruit*	*Juice of clearly skinned ripe fruit without spines is smeared on areas of the body overnight and wash it off*

(Bromeliaceae)			*in next morning to cure red inflammation on skin.*
Andrographis paniculata Wall.ex. Nees (Acanthaceae)	*Loutangvom*	*Leaves*	*Leaves are grounded in a bowl and the juice is smeared to boils 2-3 times a day.*
Argyreia nervosa (Burm.f.) Boj. (Convolvulaceae)	*Poongdinglee*	*Leaves*	*Steamed leaves are used in boils for quick healing.*
Artocarpus lakoocha Roxb. (Moraceae)	*Taat sing*	*Fruit*	*Fruit juice is applied to promote suppuration in swellings.*
Artocarpus heterophyllus Lam. (Moraceae)	*Taat pong*	*Latex*	*Latex is applied locally to burns.*
Buddleja asiatica Lour. (Buddlejaceae)	*Nuaiphuan*	*Leaves*	*Leaf extract is applied locally and as a bath in scabies.*
Calotropis gigantea (L.) W.T. Aiton (Apocynaceae)	*Angkot*	*Latex*	*Latex is applied locally to leucoderma.*
Carica papaya L. (Caricaceae)	*Singtangmal*	*Seed*	*Seeds are crushed and made into a paste with honey and applied on face for pimples.*
Commelina diffusa Burm.f. (Commelinaceae)	*Vahl*	*Leaves/ shoots*	*Paste of leaves and shoots is applied externally in fresh cuts and wounds for quick healing.*
Crassocephalum crepidioides S.Moore (Asteraceae)	*Louthao*	*Leaves*	*Leaf juice is applied locally to wounds for quick healing.*
Curcuma domestica Val. (Zingiberaceae)	*Aeing*	*Rhizomes*	*Rhizomes are crushed and juice is applied to cuts and wounds to stop bleeding.*
Dioscorea alata L. (Dioscoreaceae)	*Hakaisan*	*Tuber*	*Paste of tuber is applied to affected areas of leprosy.*
Glycosmis pentaphylla (Retz.) DC. (Rutaceae)	*Yong komla*	*Leaves*	*Leaf paste is applied externally to eczema.*
Gossypium arboreum L. (Malvaceae)	*Pat*	*Flower*	*Flowers are used as a bath in scabies.*
Lagenaria siceraria (Molina) Standl. (Cucurbitaceae)	*Umkha*	*Fruit*	*Fruit juice is applied overnight to pimples.*
Luffa cylindrica M.Roem (Cucurbitaceae)	*Sebot*	*Leaves*	*Juice from squeezed fresh leaves is applied externally on burnt area as soon as possible for quick cooling.*
Manihot esculenta Crantz (Euphorbiaceae)	*Singkawlkai*	*Leaves*	*Extract of leaves is applied to scabies for a week and skin sores.*
Michellia champaca L. (Magnoliaceae)	*Manounahngat*	*Leaves*	*Decoction of leaves is used as a lotion against measles.*
Musa paradisiaca L. (Musaceae)	*Laffu*	*Fruit*	*1 banana is crushed and made a paste with a tsp of raw milk and applied overnight to check pimples. Paste made from peels of fruit is smeared on bruises for quick healing.*
Mussaenda glabra Vahl. (Rubiaceae)	*Hanurei*	*Roots*	*Root extract with cow's urine is applied 2-3 times a day locally to leucoderma.*
Nerium indicum Mill. (Apocynaceae)	*Kabirei angangba*	*Leaves*	*Paste of leaves is applied locally to scabies daily for a week.*
Ocimum sanctum L. (Lamiaceae)	*Lunmi*	*Leaves*	*Fresh leaf juice is applied externally on skin for fungal infections.*
Opuntia stricta (Haw.)	*Meipokpi*	*Phylloclade*	*Paste of phylloclade is applied to skin sores.*

Haw (Cactaceae)			
Pandanus odoratissimus Blume (Pandanaceae)	*Gamlengthei*	*Flower*	*Extract of flower is applied to ringworms.*
Plantago erosa Wall. (Plantaginaceae)	*Vokpibilteh*	*Leaves & fruit*	*Leaves and fruit are boiled together and the juice is grinded with sugar candy and the decoction is to drink 2-3 times a day to cure pimples and black patches on face.*
Stephania japonica (Thunb.) Meirs (Menispermaceae)	*Ayanglei*	*Leaf*	*Leaf extract is applied to skin inflammation.*
Tagetes erecta L. (Asteraceae)	*Sanarei*	*Leaf*	*Leaf juice with kerosene is applied on skin allergy caused by moths.*
Tagetes patula L. (Asteraceae)	*Derken*	*Leaf*	*Leaf juice is applied to scabies and skin allergy.*
Tamarindus indica L. (Caesalpinaceae).	*Theipai*	*Fruit*	*Roasted pulp of unripe fruit is applied to swelling due to sprains.*
Toona ciliata M. Roem. (Meliaceae)	*Tairen*	*Leaf*	*Leaf paste is applied externally to scabies for a week 3 times in a day.*
Vitex trifolia L. (Lamiaceae)	*Urikshibi*	*Whole plant*	*Paste of whole plant is applied externally to scabies.*

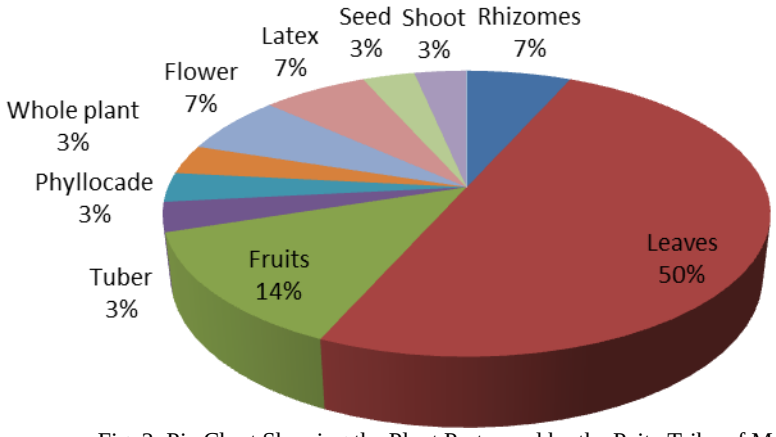

Fig. 2: Pie Chart Showing the Plant Parts used by the Paite Tribe of Manipur

From the present investigation, a total of 32 plant species belonging to 25 families with 29 genera is used in the treatment of different skin problems. It is also found that leaf (13 plant species) got the highest among the different plant parts used following by fruits (6 plant species), rhizomes(2 plant species), flowers(2 plant species), latex(2 plant species) and so on. The different skin problems include pimples, measles, scabies, skin sores and inflammation, cuts and wounds, etc.

VI. Conclusion

The availability of the medicinal plant species in the study area is wild. However, there is an urgent need to conserve the natural resources for future use as the local inhabitants draw cash to urban areas without the potential of the plant species for more drug discovery. There is also a need of phytopharmacology for many plants to observe the potential of the medicinal plants for human health care.

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