# Traditional healing practice and folk medicines used by Mishing community of North East India

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## ABSTRACT

Assam and Arunachal Pradesh have very rich tradition of herbal medicines used in the treatment of various ailments. Tribal communities practice different types of traditional healing practices. Enough documentation is available on the healing practices in other tribal communities except Mishing community of Assam and foot hill of East Siang district of Arunachal Pradesh hence the attempt was made for the same. A survey on folk medicinal plants and folk healers of Mishing tribe was conducted in few places of Lakhimpur and Dhemaji district of Assam and East Siang district of Arunachal Pradesh, where this ethnic group is living since time immemorial. All information was collected based on interview and field studies with local healers within the community. The identification of medicinal plants collected with help of indigenous healers was done. Such medicines have been shown to have significant healing power, either in their natural state or as the source of new products processed by them. This study is mainly concentrated with plants used to cure diseases and to enquire about different healing systems. Detail note on the method of preparation of precise dose, the part/parts of plants used and method of application is given.

**Key words:** Ethno-medicines, ethnic groups, herbal practitioners

## INTRODUCTION

The traditional medical practitioner or traditional healer can be defined as "someone who is recognized by the community in which he lives as competent to provide health care by using vegetable, animal and mineral substances and certain other methods based on the social, cultural and religious backgrounds as well as the prevailing knowledge, attitudes and beliefs regarding physical, mental and social well-being and the causation of disease and disability in the community". Traditional healers used different medicinal formulas from various natural substances (animal, mineral and vegetable). They have extensive knowledge on the use of plants and herbs for medicinal and nutritional purposes.

The Mishings are an ethnic group inhabiting the districts of Dhemaji, North Lakhimpur, Sonitpur, Tinsukia, Dibrugarh, Sibsagar, Jorhat and Golaghat of Assam. A few live in and around Pasighat of East Siang district of Arunachal Pradesh. They are the second largest tribal group in North-East India, followed by the Bodos. Their chief festival is Ali-Aye-Ligang, in the month of February, which marks the beginning of the sowing season.[1]

Moreover, due to their affinity towards living close to river banks brings about Malaria and water-borne diseases and they developed traditional healing practices to protect themselves from different diseases and traditional healing practices of those days are still preferred by the people of this community in this modern era. Details of medicinal plants used in India were reported[2] and records on Folk medicines used by Mishing tribes is lesser known.[3-6] However, tribal communities in Arunachal Pradesh, resembling Mishings i.e. Adi, Apatani and Nyishi also use locally available herbs for treatment of ailments.[7-12]

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Received: 10-May-2011
Revised: 28-Jul-2011
Accepted: 04-Aug-2011

**Access this article online**

Quick Response Code:

Website: www.jaim.in

DOI: 10.4103/0975-9476.100171

Traditional healing practices amongst Mishing tribes is the method to treat ailments by using herbs in form of fresh drug, crushed juice, decoction of drug part and powdered medicine for oral intake and paste for local application on skin diseases and wounds. They use locally available medicinal herbs, cultivated drugs from different habitat as well as cultivating depleting medicinal plants, They have also faith on divines and worships for cure of ailments. The study reveals detailed documentation of healing practices used by traditional healers for their community health with full faith and confidence. Malaria and jaundice being the prominent diseases in North East India are widely treated by traditional healers and 68 herbs have been recorded treating malaria and about 88 for treating jaundice.[13]

## MATERIALS AND METHODS

In folk medicine or ethno medicinal studies, the most reliable method is one involving field survey.[14] During various field survey in forest areas and adjoining villages, villagers were consulted about their primary method of treatment during illness. After getting information about the persons involved in local healing practices authors made attempt to come in contact with these healers with an idea of exchange of knowledge gathered from established system of herbal medicine like Ayurveda and local herbs used in other adjoining community. During course of interaction knowledge about single and easily accessible compound drugs used in Ayurveda and easily available in the area was also shared with the healers to incorporate or update their knowledge itself. It involves meeting with the herbalists and experts in the field for getting first hand information. Practitioner of herbal medicines who are experts in treating in general different ailments and who are also expert in different methods of treatment were consulted for getting some first hand data. In the present study the work is restricted to some herbal-medical practitioners within different Mishing groups inhabiting in Assam and Arunachal Pradesh. The herbalists consulted were convinced about the importance of documentation of ethnic knowledge about the medicinal plants used in various curative purposes. It requires tactful handling and persuasion to bring out the information from the herbal practitioners. During course of study traditional informers on healing practices were interviewed under which in total 7 healers from Dhemaji and North Lakhimpur districts and 4 from foothills of East Siang district were interacted some of which are Mr U. C. Kardong, Mr Lakhidhar Payeng, Mr Khogen Kardong, Mrs Maloti Naro and other associated with the above practitioners. These traditional healers belong to 4 villages in North Lakhimpur and 3 in Dhemaji district of Assam and one village in East Siang district of Arunachal Pradesh. The detail information about the plants and part used in the treatment of different ailments were collected. Plant specimens were collected for identification and herbarium preparation. While most of the plants are commonly occurring plants known to most of the people, some of the plants were identified consulting the herbarium specimen in the Botanical Survey of India (BSI), Itanagar. The detail method of the preparation of the precise dose was also collected. The herbarium specimens are preserved in the Herbarium of Ayurveda Regional Research Institute, Itanagar for authentication and future reference.

## OBSERVATION

### Traditional healing practice of Mishing community

Mishing community is one of the major tribal communities which are distributed from Arunachal Pradesh to plains of Assam and bifurcated from time to time due to their migration from hills of Arunacha Pradesh to plains of Assam. During this migration they developed their knowledge by acquiring from other nearby communities and used herbs available in and around their villages for various treatments of ailments [Table 1]. As per information given on system it was found that long back the responsible persons in the villages was village head called Gaon Burha in Arunachal Mishing but during these interactions more than 3 persons belonging to same or different family are involved in healing practices by developing some cultivation of herbs used in their practices and not naturally occurring in the nearby areas just like *Aloe barbadensis, Barleria cristata, Glycyrrhiza* glabra etc. Under healing practices of Mishing community general herbalist, bone setters, *Ojhas* related with *Bhoot Badha*, *Dondai* using *Mantra Tantra* etc. the herbalists and their specialization described in Table 2. Some common type of treatment like cuts and wound, sprain and skin diseases where external application is involved is practiced by all those who get affected immediately. Use of certain herbs like *Centella asiatia, Houttuyinia cordata, Phyllanthus emblica and Terminalia citrina* is in common practice as protective medicine and is commonly sold in vegetable shops.

Presently All traditional healers of this community are not performing the same functions, nor do they all fall into the same category. Each of them has their own field of expertise. Even the techniques employed differed considerably. They have their own methods of diagnosis and their own particular medicine. By interviewing it was found that there are different types of traditional healers on basis of there expertise in north east India.

Traditional medical practitioners treat all age groups and all problems, using and administering medicines that are readily available and affordable. Their treatment is comprehensive

**Table 1: Folk medicines used by Mishing community of North east India**

| Scientific name | Local name | Parts used | Disease | Methodology |
|---|---|---|---|---|
| *Abroma augusta L.f.* Sterculiaceae | *Ulatkambal* | Root | Impotency and weakness | Root juice extracted in water taken orally |
| *Acacia pennata* (L.) Willd. Mimosaceae | | Bark | Stomach ache | Bark juice is taken orally in water |
| *Acorus calamus* L. Araceae | *Boch/Tabiz* | Rhizome | Cough | Taken orally with water |
| *Adhatoda zeyanica* Medic. Acanthaceae | *Vahak* | Leaf | Cough/ Krimi | Decoction with kali marich / Juice direct use |
| *Ageratum conyzoides* L Asteraceae | *Kangar* | Leaf | Ache on back | Leaf juice aapplied on affected areas |
| *Ageratum conyzoides* L. | | Leaf | Stop bleeding | Fresh leaf paste is applied |
| *Aloe barbadensis* Mill. Liliaceae | *Shalkuandi* | Pulp | Jaundice | Pulp of 2-3 leaves ground with 50Gm Talmisri. Taken with 250 ml. milk 6-7 days Leaf |
| *Alstonia scholaris* (L.) Br. Apocynaceae | *Satiyan gachh* | Stem bark | Malaria and fever | bark of A. scholaris and Andrographis paniculata powdered and taken orally with warm water |
| *Amaranthus spinosus* L Amaranthaceae | *Tanduliya/ Katailichaulai* | Root | Stomach pain | Boil extract of the root is used orally for stomach pain during menstruation cycle. |
| *Artemisia nilagirica* (Cl.) Pamp. Asteraceae | | Leaf | Griping stomach pain | Taken orally |
| *Barleria cristata* L. Acanthaceae | *Vahaka* | Stem | Cough | Juice is extracted from stem barkand used orally |
| *Belamcanda chinensis* DC. Iridaceae | *Ujakanti* | Plant | Menstrual disorder | Juice is extracted from plant and taken orally |
| *Cajanus cajan* L. Fabaceae | *Arhar Patta* | Leaf | Jaundice | Fresh juice extract (1 cup) for 3-4 days |
| *Cannabis sativa* L. Cannabaceae | *Bhang* | Leaf | Loose motion | Leaf juice extracted and taken orally |
| *Cascabela thevetia* (L.) Lipp. Apocynaceae | *Pila Kaner* | Latex | Abortion | Fresh milky latex taken |
| *Centella asiatica* (L.) Urban Apiaceae | *Manimuni* | Plant | Gastric trouble, local drink for good health | Plant mixed with plants of Hydrocotyle javanica made into paste and used as sause and dried cake is prepared |
| *Chenopodium album* L. Chenopodiaceae | *Jhilimili* | Leaf | Digestion/ anemia | Fresh or dried leaves cooked and eaten as vegetable |
| *Chromelaena odorata* (L.) King andRob. Asteraceae | *Assam lota* | Leaf | Clotting of blood | Paste prepared and applied on cutted areas |
| *Clerodendrum viscosum* Vent. Verbenaceae | *Pakam* | Leaf | Health tonic and Ingredient of local wine. | Mixed with other drugs and made into pills and fermented |
| *Coix lachryma* jobi L. Poaceae | *Tapi* | Grains | High pressure | Beaded grains are bore to get relief from high pressure |
| *Costus speciosus* (Koen) Sm. Zingiberaceae | *Kushtha/ Kebuk* | Rhizome | Jaundice | Fresh rhizome pasted and kept for a night in water and taken orally. |
| *Cynodon dactylon* L Poaceae | *Durba* | Plant | Pediatric vomiting | Fresh plant of white Durva and paddy straw pasted with water used earthen container piece mixed with carbon ash deposited on the shade roof of fire place. Paste is applied over fore head |
| *Eclipta prostrata* (L.) L. Asteraceae | *Keyaras* | Plant | Jaundice | Fresh plant juice with milk used orally in empty stomach |
| *Eichornia crassipes* Solams Pontederiaceae | *Meteka* | Flower | Stomach trouble | Cooked and eaten as vegetable |
| *Euphorbia ligularia* Roxb. Euphorbiaceae | | Stem | Finger tip pain/ boil | Finger tip is covered in the hole of 2 inch cut piece of stem |
| *Ficus hispida*L.f. Moraceae | | Fruit | Stomach trouble | Fruit powder eaten with warm water |
| *Ficus racemosa* L. Moraceae | *Tajik* | Stem | Bone fracture | Latex of stem is coated on the bamboo strips and tied over the fractured part |

(Table contd...)

**Table 1: (Continue)**

| Scientific name | Local name | Parts used | Disease | Methodology |
|---|---|---|---|---|
| *Glycyrrhiza glabra* L. Leguminosae | *Jashthimadhu* | Stem/ leaf | Throat pain, cough | Fresh stem twig and leaf chewed |
| *Gossypium harbaceum* L. Malvaceae | *Shirpak* | Root | skin disorders in fingers | Paste is locally applied |
| *Hibiscus rosa sinens*i L. Malvaceae | *Gokhai Aphun Javaphul* | Flower | Weakness | Flower mixed with Talmisri and taken orally with water |
| *Houttuynia cordata* Thunb. Sauruaceae | *Masundari* | Root | skin disorder | Root is pasted and given in skin disorders |
| *Ipomoea aquatica* Forsk Convolvulaceae | *Karmi sag* | Arial plant | Eye sight | Cooked herb washed and cooked, taken as vegetable. |
| *Leucas indica* (L.)Br. Lamiaceae | *Drona* | Leaf | Sinusitis, pneumonia, ulcer, manustrual disorder | Leaf juice diluted in water (sinusitis). Cooked and eaten as vegetable in other diseases |
| *Lygodium flexuosum* Sw. Schizaceae | *Patifam* | Stem | Fracture in cock/hen | Broken leg tied over with the stem joins the fractured leg |
| *Mcaranga indica* L. Euphorbiaceae | *Erapat* | Rhizome | Stomach pain | Warm oil coated leaf placed over the stomach during pain |
| *Michelia champaca* L. Magnoliaceae | *Tita champa* | Bark | Malaria | Juice is extracted from stem bark. Powdered bark or decoction is taken orally in water |
| *Mimosa pudica* L. Mimosaceae | *Nilajji* | Root | Tooth worm | Paste is applied locally on infected areas |
| *Murraya koeninghii* Spreng Rutaceae | *Norsingh Gachh* | Leaf | Acidity/ liver tonic | Juice is extracted from leaf and taken orally with water |
| *Nyctanthus arbortristris* L. Oleaceae | *Evahgachh* | Leaf | Malaria / fever | Leaf juice or decoction is given orally with water |
| *Nymphea stellata* Willd. L. Nymphaeaceae | | Rhizome | Krimi/worm | Powdered rhizome is taken thrice a day for 4-5 days |
| *Oroxylum indicum* Vent. Bignoniaceae | *Bhatgila* | Stem | Malaria | Powdered bark is taken for 5-6 days |
| *Pedilanthus tithimaloides*(L.) Poit. | *Atobulo* | Latex | Piles | Local application |
| *Phlogacanthus thyrsiflorus* Nees Acanthaceae | *Tita vasaka* | Leaf | Loose motion | Juice is extracted and taken orally with water |
| *Phyllanthus amaras* L. Phyllanthaceae | *Bhui amlaki* | Plant | Jaundice | Fresh juice with fresh cold cow milk 1 cup for 5-6 days |
| *Physalis angulata* L. Solanaceae | *Tumpet* | Fruit/ leaf | Stomach trouble | Leaves and fruit are eaten |
| *Plumaria alba* L. Apocynaceae | *Gulcha phul* | Stem | Ear sour/ boil | Juice mixed in coconut oil extracted from stem bark |
| *Plumbago zeylanica* L. Plumbaginaceae | *Citrok* | Root | Jaundice | Extract of the root is applied in a cotton thread and tied on the upper arm of the patient |
| *Pongamia pinnata* (L.) Pierre Fabaceae | *Karanj* | Leaf | Urinary trouble | Juice is extracted from leaf and taken orally |
| *Ricinus communis* L. Euphorbiaceae | *Erapat* | Leaf | Stomach ache | Pounded leaf applied locally on ache areas |
| *Scoparia dulcis* L. Scrophulariaceae | *Mithasem* | Leaf | Digestion, fever and pain | Leaf decoction / paste for cake preparation and taken for getting relief |
| *Sida acuta* L. Malvaceae | *Boriar* | Leaf | Bleeding | Leaf paste rubbed on wound |
| *Solanum viarum* Dunal Solanaceae | *Katibijwan* | Seed | Tooth worm | Seeds are boiled and steam is applied to remove worms |
| *Sonchus oleraceus* L. Asteraceae | *Manishal* | Bark | Liver disorders and kidney stones | Liver disorders and removal of kidney stones |
| *Tabernemontana divaricata* Roxb. Apocynaceae | *Neelkantha* | Leaf | Pneumonia, cough | Taken orally with water |
| *Zizyphus mauritiana* Rhamnaceae | *Bagouri* | Stem | Stomach ache | Powdered bark is taken with warm water |

**Table 2: Types of traditional healers amongst Mishing tribes**

| Traditional healers amongst Mishing community | Nature of healing practices |
|---|---|
| Herbalists | Prescribing healing herbs for different illnesses and mode of application with doses locally known as Dhondai in Mishing. |
| Diviners, | Using prayer, candlelight or water for curing different diseases locally called as 'Mibo' in Mishing. They perform 'Dobor puja' for protecting health from any diseases. |
| Prophets or faith healers | Developing faith and will power to diseased persons |
| Traditional birth attendants | Practicing maintenance of birth records linked with good/ ill health |
| Vetenary specialist | Curing veterinary diseases and disorders |
| Bone setter | Developing specialty in bone fracture and dislocation of joints |

and has curative, protective and preventive elements, and can be either natural or ritual or both, depending on the cause of the disease. It includes among others, ritual sacrifice to appease the ancestors, ritual and magical strengthening of people and possessions, steaming, purification (e.g. ritual washing, or the use of emetics and purgatives), sniffing of substances, cuts, wearing charms and piercing.

### Ethno medicinal plants used by Mishing Community

The ethno medicinal information regarding treatment of different diseases collected in course of field study is presented here in tabular form for easy reference.

The study shows that Malaria, Jaundice and female menstruation problems are the prominent diseases in this community as most of the traditional healers are prescribed medicine for these treatments.

In this study, 55 medicinal plants encountered from different parts of the Mishing inhabitant area used by this community in their daily ailment from various diseases. Fifteen were trees; 8 shrubs and 30 were herbs and climbers. Different parts of the medicinal plant species were used for curing different diseases and mostly leaves (36.84%) were used followed by stem (14.03%), root (10.52%) and bark (7.02%). Asteraceae (5 species), Apocynaceae (4 species) and 3 each in Euphorbiaceae, Malvaceae and Acanthaceae were found. Some of the plants can be categorized as highly prioritized medicinal plants as they are of immense value in curing various diseases but are in the low niche. These plants are widely used under traditional healing practices but due to multiple use they are depleting from their habitat viz. *Acorus calamus, Costus speciosus, Eclipta prostrata, Oroxylum indicum* and *Plumbago zeylanica*. Eventually, these species are now on the freeway towards extinction due to over exploitation, road construction, encroachment of habitat by the immigrants of the neighbouring community. Local inhabitants adapted cultivating some of the locally available herbs like *Acorus calamus, Alstonia scholaris, Centella asiatica, Leucas indica, Nymphea stellata, Tabernemontana divaricata* and some others from habitats of different climatic condition like *Aloe barbadensis, Glycyrrhiza glabra* which meet out the requirement of drugs for daily requirement. Some of the prominent herbs of the area are *Ageratum conyzoides*, *Clerodendrum infortunatum*, *Leucas indica*, *Sida acuta, Solanum viarum*, etc. which are commonly available in the habitat and are used for meeting out requirement of drug for treating ailments Few commonly observed trees and shrubs are *Alstonia scholaris*, *Costus speciosus Ficus racemosa, Oroxylum indicum*, *Plumaria alba*, *Ricinus communis*, etc.

Most of the plant products after formulation are used orally, whereas for skin disease and bone facture medicines are not prescribed for oral consumption. It was found that in most of the cases the plant products are prepared with combination of some other plants or some other products. The plants uses in mixture all may not contain the properties to relief from particular disease but some might be reduced side effect on treatment.

## CONCLUSION AND DISCUSSION

The traditional healing practices in Mishing tribes of Arunachal Pradesh and Assam was insufficiently documented and authors made efforts to document the healing practices used by Mishing community with details of methodology and doses. To cope up with the objectives authors made interaction with villagers in different villages in Dhemaji and north Lakhimpur districts of Assam and foot hills of East Siang district of Arunachal Pradesh to know about genuine and reliable traditional healers in the area and came in contact with 11 traditional healers who are engaged in herbal treatment. During course of interaction 55 different herbs and their parts were found using in various treatments. These herbs were belonging to herbs, shrubs and tree either from locally available sources or adapted through cultivation in their small herbal gardens. Prevalent diseases treated by the Mishing healers are Jaundice, malaria, menstrual disorders, joint pains skin diseases etc. Prior to this certain other plants used by Mishing tribes of Assam were described.[5,6] However, most of the plants involved in traditional practice described in this paper are different and if some of the

plants are reported in these communications they are for other diseases.

The description of all above mentioned plants are on the basis of ethno medicinal knowledge. Plants are used by Mishing community in different places on the basis of availability of those plants and the proper knowledge about efficacy of those plants against the particular disease. For safe uses of different medicinal plants, we need randomised clinical trials for some of the manual therapies and further research is need to ascertain the efficacy and safety of several other practices and medicinal plants. We have to develop a proper study about the traditional medicine and the ratio of curative measurement applied to different patients on the use of those plants. The study on such types of documentation is of great importance for North Eastern Institute of Folk Medicine in the sense that the Institute will get sufficient information on traditional healers and mode administration of medicine for treating ailments on one hand and sufficient tool for proving authenticity of drugs used in healing practice through pharmacology, phytochemistry and other pharmaceutical constants. Similarly services of these traditional healers are of great importance to public as they are rendering their services to public in very remote places where people are really in need of health services. These traditional healers need to be involved in all sorts of trainings to youngsters as well as refreshing their knowledge with healers of other communities. Though they are acquiring and correlating their knowledge with established records and information available with other communities. Involving cultivating and using *Aloe barbadensis* and *Glycyrrhiza glabra* is the example and availability of drugs from other climatic zones in the Crude drugs markets of major markets in Assam strengthen the concept of exchanging knowledge with other communities.

The role of government for the existence of this system of medicine should be: 1. To give due recognition to their contribution and involvement; 2. To delineate the specific scope, limit and role of traditional healers in public health promotion; 3. To undertake research and development activities; 4. To provide orientation and support to folk-healers; 5. To monitor and strengthen the role of folk-healers and to do proper follow up.

## ACKNOWLEDGEMENT

The authors acknowledge the technical and financial support of Director, Department of AYUSH, Government of India. The authors are also thankful to Mr U. C. Kardong, Mr Lakhidhar Payeng, Mr Khogen Kardong, Mrs Maloti Naro and other folk healers of Mishing community for sharing their valuable indigenous knowledge of folk medicine with us.

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**How to cite this article:** Shankar R, Lavekar GS, Deb S, Sharma BK. Traditional healing practice and folk medicines used by Mishing community of North East India. J Ayurveda Integr Med 2012;3:124-9.

**Source of Support:** Central Council for Research in Ayurvedic Science, Department of AYUSH, Government of India., **Conflict of Interest:** None declared.