



Review Article

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USES OF INDIGENOUS MEDICINAL PLANTS OF EAST KHASI HILLS, MEGHALAYA, NORTHEAST INDIA: A REVIEW STUDY

Neelam ^{1*}, Dwivedi K. N. ²

¹ Lecturer, North Eastern Institute of Ayurveda and Homoeopathy, Shillong, Meghalaya, India

² Professor and Head, Faculty of Ayurveda, Institute of Medical Sciences, Banaras Hindu University, Varanasi, India

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*Corresponding author

E-mail: neelam839@gmail.com

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ABSTRACT

Meghalaya, the hilly state, is one of the seven states of North-Eastern region of India. This small state was carved out of Assam and made a full-fledged state on 21st January 1972. The Khasi, Jaintia, Bhoi and War, are collectively known as the Hynniewtrep people and they predominantly inhabit the districts of Eastern Meghalaya. Indigenous people are generally very knowledgeable about the wild medicinal plants around them, many of them have local names and are important to the people as folklore. The present topic is chosen to explore the indigenous knowledge of medicinal plants by Khasi tribe in East Khasi Hills, Meghalaya. To explore the knowledge of medicinal plants, many Villagers and traditional healers (Ojhas) who were experienced in practicing indigenous or folk medicine are consulted to gather information. In this review study a total of 30 medicinal plants are documented and information on local names, scientific names, family, habit, plant parts used and medicinal uses of these plants are also given. The documented plant species are used for some common ailments like headache, stomach problems, cold, cough and fever, jaundice, skin diseases, blood pressure and diabetes etc. These plants are taken orally in the form of *Swarasa* (juices) or *Kwatha* (decoction). These kinds of traditional practices require scientific validation and documentation of their therapeutics in Ayurveda.

Keywords: Folklore, Indigenous, Khasi tribe, Medicinal plants.

INTRODUCTION

Northeast India has India's richest reservoir of plant diversity and supports around 50% of India's total plant diversity¹. The region also harbours 40% of India's endemic plant species². There are 7 states comes under North East region and Meghalaya is one of them. The state Meghalaya is rich in plant biodiversity and most sophisticated indigenous medical cultures with an unbroken tradition³. The strange climatic and geographical positions as well as the physical features of various districts explain to a large extent the extreme isolation of tribes in different districts. Different tribes have their own way of living and adaptation. Their gradual contact with nature has led to the development of an inquisitive knowledge which ultimately is reflected in their traditional culture, local belief, religion, folklore, taboos, and dialects which are found to be ethno-botanically interesting. About 90% of the rural population in hilly terrain depends on traditional healthcare system⁴. The term Ethnobotany implies an explanation on local people's perspective on culture and scientific knowledge. It can also be defined as all studies, which describe local people's interaction with the surrounding natural vegetation. Numerous wild and cultivated plants play a very important and vital role among these cultures. Studies on folk medicine through ethnobotanical aspects are also gaining importance.⁵ Folk medicine is practiced by millions of households. The recipes and formulae of these have been handed down orally for generations. Their skills range from treating common ailments to conditions like hepatitis, Visha as well as mental diseases. Though these traditions are empirical in nature, with limited access to organized health service, depend to varying degree on Folk Traditions for their medical needs⁶. Generally, these plants grow naturally and are collected by local people and sold to traders who, in turn, sell

to the pharmaceutical and cosmetic industry and to exporters. There is no scientific system of identification, collection or regeneration as a result many medicinal plants face extinction or severe genetic loss⁷. For most of the endangered species no conservation has been taken. For example, there is very little material of them in gene banks. Also, too much emphasis has been put on the potential for discovering new wonder drugs, and too little on the many problems involved in the use of traditional medicine by the local populations. Scientific documentation of indigenous wisdom about medicinal properties among traditional ethnic's groups is being suggested as the urgent need not only to conserve it from being lost irreversibly but also for using them as clues for development of therapeutic agents⁸. It is not possible here to describe all the medicinal plants of the state. However, a list of very significant medicinal plants is presented here. The aim is to highlight the most frequently used medicinal plants in the tribal areas of East Khasi hills of Meghalaya, India and the diseases against which these plants are used.

The present work has brought to light the indigenous medicinal plants as proclaimed by the traditional healers as well as the village folks. Along with intensive survey of locally available information on the use of traditional herbal medicine collected through personal interview and literature search, field work was also considered necessary. The methodology followed during field work was based mainly on detailed questionnaires. Planned field work was carried out in different tribal pockets of Meghalaya, forest department of Meghalaya and in Herbal-garden of Governor house of Meghalaya. The purpose of the study was not only the collection of first-hand information about the medicinal plants with the community but also to verify the already published data wherever possible.

RESULT

A total of 30 medicinal plants are recorded in the present work. The information on scientific names, local names, families, habits, plant parts used and therapeutic uses of recorded plants are given alphabetically in tabular form.

Table 1: Common medicinal plants used by the Khasi tribes of Meghalaya⁹

Classical Name	Botanical Name	Family	Local Name	Part used	Diseases associated with
Rasona	<i>Allium sativum</i>	Liliaceae	Rynsun	Bulb	Mixed with oil for cough
Vacha	<i>Acorus calamus</i>	Araceae	Bet, Ryniaw	Root, leaf	Root and leaf are used for treatment of epilepsy and stomach problem in newborn
Bilva	<i>Aegle marmelos</i>	Rutaceae	Soh- bel	Leaf, fruit	Leaves and fruit juices for heart diseases and indigestion
Vasa	<i>Adhatoda vasica</i>	Acanthaceae	Vasaka	Flower, leaf	Lung diseases
Shatavari	<i>Asparagus racemosus</i>	Liliaceae	Batniang sohpet	Tuberous root	Indigestion in children
Kumari	<i>Aloe vera</i>	Liliaceae	Syntiew shylluit	Whole plant	Skin diseases
Kamarakha	<i>Averrhoa carambola</i>	Oxalidaceae	Soh-pyrshong	Fruit	Jaundice, gall stone, Malaria
Parnabeeja	<i>Bryophyllum pinnatum</i>	Crassulaceae	Tiewkhluid ding	Leaf	Kidney stone, burn
Mandukaparni	<i>Centella asiatica</i>	Apiaceae	Bat syiar	Whole plant	Blood purification, dysentery, diarrhea
Aragvadha	<i>Cassia fistula</i>	Caesalpinaceae	La- met, maroi	Fruit pulp	For bone setting, injuries.
Tejpatra	<i>Cinnamomum tamala</i>	Lauraceae	Latyrpad	Leaf, bark	Gastric problems
Kebuka	<i>Costus speciosus</i>	Zingiberaceae	Gokarek	Leaf	Kidney problems
Haridra	<i>Curcuma longa</i>	Zingiberaceae	Shyrmitt	Rhizome	Cough, cold, skin diseases and wound healing
Jwarankusha	<i>Cymbopogon citratus</i>	Graminae	Lemon grass	Leaf	Cold, Cough and skin diseases
Varahikanda	<i>Dioscorea bulbifera</i>	Dioscoriaceae	Phan kyrsew	Tuber	Cancer and ulcer
Amalaki	<i>Emblica officinalis</i>	Euphorbiaceae	Sohmylleng	Fruit	Blood pressure, constipation also juice is used for eye paining.
Katphala	<i>Myrica esculenta</i>	Myricaceae	Sohphie Nam	Fruit	Indigestion in children, diabetes, fever
Tuta	<i>Morus nigra</i>	Moraceae	Soh langdkhur	Fruit	Lower body heat
Tulasi	<i>Ocimum sanctum</i>	Lamiaceae	Holy basil	Leaf, stem, root	Cough, cold and best for malaria
Pippali	<i>Piper longum</i>	Piperaceae	Sohmrit khlaw	Fruit	Mixed with honey bee for cough.
Maricha	<i>Piper nigrum</i>	Piperaceae	Sohmrit bam	Fruit	Mixed with honey bee for cough.
Peruka	<i>Psidium guajava</i>	Myrtaceae	Soh pyrem	Tender leaf	Dysentery and diarrhea
Sarpagandha	<i>Rauwolfia serpentina</i>	Apocynaceae	Tdong pait puraw	Root, leaf	Snake bite, high blood pressure, chickenpox
Manjishtha	<i>Rubia cordifolia</i>	Rubiaceae	Me-rhoi	Leaf, stem	Skin diseases, poisonous sting of insects.
Brihati	<i>Solanum khasianum</i>	Solanaceae	Soh-Siah	Fruit	Toothache
Kiratatikta	<i>Swertia chirata</i>	Gentianaceae	Bat-shrita	Whole plant	Malaria
Sthauneyaka	<i>Taxus wallichiana</i>	Pinaceae	Dieng blei	Leaf	Gastric problems, Cancer
Arjuna	<i>Terminalia arjuna</i>	Combretaceae	Arjun	Bark	Gastric problems
Haritaki	<i>Terminalia chebula</i>	Combretaceae	Haritaki	Bark	Gastric problems
Guduchi	<i>Tinospora cordifolia</i>	Menispermaceae	Dogittang	Stem	Liver, malaria, skin diseases, jaundice, broken bones.
Tejovati	<i>Zanthoxylum acanthopodium</i>	Rutaceae	Jaiur khlaw	Seed	Toothache, skin diseases.
Shunthi	<i>Zingiber officinale</i>	Zingiberaceae	Kekir	Rhizome	Cough, cold, bone setting ⁹

DISCUSSION

The medicinal plant sector has great potential to boost the economy of Northeast India and these are the rich sources of medicines. The present study shows that almost all plant parts are used as medicine. *Acharya Charaka* (C.Su.26) said that there are no any plants in this universe which is devoid of medicinal values, but it should be used rationally or with proper planning and with definite or specific objectives. The most used part of plant for curing diseases are stem bark followed by leaves, roots, fruits, seeds, latex, flowers. The maximum usage of stem bark and leaves may be due to presence of more active phytoconstituents in them. The mixtures of one or more herbs seem to have a synergistic effect that is more likely to produce a possible cure of the diseases. Maximum numbers of plants are used by the locals to treat or cure many ailments like stomach problem (dysentery, diarrhoea and gastric problem), common cold, cough, skin diseases and headache. It is observed that a single plant may be used to cure many diseases such as *Shunthi*, *Haridra*, *Haritaki*, *Amalaki* etc. It was observed that sometimes for improving the aroma and taste of decoction, *Madhu*, *Jwarankusha* and *Tejpatra* are added which shows their innovative ideas.

Traditional healers are very much dependent on wild. But due to over exploitation of these valuable resources, there is tremendous pressure on some of the plant species which is resulting in reduction of their population. It is, therefore extremely essential to cultivate and conserve these plant species. However, for successful cultivation and conservation of medicinal plants, some core issues need to be addressed. These include identification, proper documentation (plant parts used, for which ailment, dosages, method of preparation, harvesting period), isolation of active compound, agro-technique development, market survey, establishment of storage facilities and market channels, awareness etc.

CONCLUSION

The present article shows that people of East Khasi Hills, Meghalaya have immense knowledge of medicinal plants and depends on them for treatment of common ailments. Relevant

information on medicinal plants is held by traditional healers. Hence, there is need to conserve the indigenous knowledge of Khasi tribe for curing various diseases.

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